# SAFETY DATA SHEET

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** **GF/D, 10 mm x 100 m, 1 pack**

**Catalogue Number** 1823-10078

**Product description** Not available.

**Product type** Solid.

**Other means of identification** Not available.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

| | **Identified uses** |
|---|---|
| Analytical chemistry.<br>Laboratory chemicals<br>Scientific research and development | |
| ☑ Consumer use | - |

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Cytiva
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA United Kingdom
+44 1494 508000

**Hours of operation**
08.30 - 17.00

**Person who prepared the SDS :** sds_author@cytiva.com

### 1.4 Emergency telephone number

**United Kingdom (UK)**

Cytiva UK
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA
t: 0870 606 1921

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Calll Collect).

**National advisory body/Poison Centre**

**United Kingdom (UK)**

Health professionals should contact the National Poisons Information Service (NPIS) by telephone, or use TOXBASE www.toxbase.org .

NPIS http://www.npis.org/ advise that others seeking specific information on poisons should contact:
In England and Wales: NHS Direct - 0845 4647 or 111
In Scotland: NHS 24 - 08454 24 24 24
In N Ireland: Contact your local GP or pharmacist during normal hours; click here (www.gpoutofhours.hscni.net/ ) for GP services Out-of-Hours.

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

**Product definition** Mixture

**Classification according to UK CLP/GHS**

Skin Irrit. 2, H315
Carc. 2, H351

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

| | |
|---|---|
| **Ingredients of unknown toxicity** | 100 percent of the mixture consists of component(s) of unknown acute oral toxicity<br>100 percent of the mixture consists of component(s) of unknown acute dermal toxicity<br>100 percent of the mixture consists of component(s) of unknown acute inhalation toxicity |
| **Ingredients of unknown ecotoxicity** | Contains 100% of components with unknown hazards to the aquatic environment |

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms**



| | |
|---|---|
| **Signal word** | Warning |
| **Hazard statements** | Causes skin irritation.<br>Suspected of causing cancer. |

**Precautionary statements**

| | |
|---|---|
| **General** | Not applicable. |
| **Prevention** | Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Wash thoroughly after handling. |
| **Response** | IF exposed or concerned: Get medical advice or attention. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. |
| **Storage** | Not applicable. |
| **Disposal** | Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| **Supplemental label elements** | Not applicable. |
| **Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** | Not applicable. |

**Special packaging requirements**

| | |
|---|---|
| **Containers to be fitted with child-resistant fastenings** | Not applicable. |
| **Tactile warning of danger** | Not applicable. |

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

| | |
|---|---|
| **Other hazards which do not result in classification** | None known. |

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** Mixture

| Product/ingredient name | Identifiers | % | Classification | Type |
|---|---|---|---|---|
| glass, oxide, chemicals | REACH #: 01-2119488048-29<br>EC: 266-046-0<br>CAS: 65997-17-3 | 50 - 100 | Skin Irrit. 2, H315<br>Carc. 2, H351 | [1] [2] |

See Section 16 for the full text of the H statements declared above.

Type

[1] Substance classified with a physical, health or environmental hazard
[2] Substance with a workplace exposure limit

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

**Eye contact** Adverse symptoms may include the following:
pain or irritation
watering
redness

**Inhalation** No specific data.

**Skin contact** Adverse symptoms may include the following:
irritation
redness

**Ingestion** No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** None known.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** No specific fire or explosion hazard.

| | |
|---|---|
| **Hazardous combustion products** | No specific data. |

### 5.3 Advice for firefighters

| | |
|---|---|
| **Special precautions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **For non-emergency personnel** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| **For emergency responders** | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | |
|---|---|
| **Small spill** | Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **6.4 Reference to other sections** | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

| | |
|---|---|
| **Protective measures** | Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| **Advice on general occupational hygiene** | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

| | |
|---|---|
| **Recommendations** | Analytical chemistry. Laboratory chemicals. Scientific research and development. |
| **Industrial sector specific solutions** | Not available. |

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| glass, oxide, chemicals | **EH40/2005 WELs (United Kingdom (UK), 1/2020) [machine-made mineral fibre (except for refractory ceramic fibres and special purpose fibres)]**<br>TWA 8 hours: 5 mg/m³.<br>TWA 8 hours: 2 f/cm³. |

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures**

Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

Not available.

**PNECs**

Not available.

## 8.2 Exposure controls

**Appropriate engineering controls**

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures**

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection**

**Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

## 9.1 Information on basic physical and chemical properties

**Appearance**

**Physical state** Solid.

**Colour** White.

**Odour** Odourless.

**Odour threshold** Not available.

| | |
|---|---|
| **pH** | Not applicable. |
| **Melting point/freezing point** | Not applicable. |
| **Initial boiling point and boiling range** | Not applicable. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not applicable. |
| **Flash point** | Not applicable. |
| **Auto-ignition temperature** | Not applicable. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Dynamic (room temperature): Not applicable.<br>Kinematic (room temperature): Not applicable.<br>Kinematic (40°C): Not applicable. |
| **Solubility in water** | Not applicable. |
| **Partition coefficient: n-octanol/ water** | Not applicable. |
| **Vapour pressure** | Not applicable. |
| **Evaporation rate** | Not available. |
| **Relative density** | Not available. |
| **Vapour density** | Not applicable. |
| **Explosive properties** | Not considered to be a product presenting a risk of explosion. |
| **Oxidising properties** | Not available. |

**Particle characteristics**

| | |
|---|---|
| **Median particle size** | Not available. |

### 9.2 Other information

| | |
|---|---|
| **Burning time** | Not available. |
| **Burning rate** | Not available. |
| **Solubility in water** | Not applicable. |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | The product is stable. |
| **10.3 Possibility of hazardous reactions** | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | No specific data. |
| **10.5 Incompatible materials** | No specific data. |
| **10.6 Hazardous decomposition products** | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

Not available.

| | |
|---|---|
| **Conclusion/Summary [Product]** | Not available. |

**Acute toxicity estimates**

N/A

**Skin corrosion/irritation**

Not available.

| | |
|---|---|
| **Conclusion/Summary [Product]** | Irritating to skin. |

**Serious eye damage/eye irritation**

Not available.

**Conclusion/Summary [Product]** Repeated exposure of the eyes to a low level of dust can produce eye irritation.

**Respiratory corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung damage.

**Respiratory or skin sensitization**

Not available.

**Skin**

**Conclusion/Summary [Product]** Not available.

**Respiratory**

**Conclusion/Summary [Product]** Not available.

**Germ cell mutagenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Carcinogenicity**

Not available.

**Conclusion/Summary [Product]** If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Reproductive toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

| | |
|---|---|
| **Information on likely routes of exposure** | Routes of entry anticipated: Dermal, Inhalation, Eyes.<br>Routes of entry not anticipated: Oral. |

**Potential acute health effects**

| | |
|---|---|
| **Inhalation** | No known significant effects or critical hazards. |
| **Ingestion** | No known significant effects or critical hazards. |
| **Skin contact** | Causes skin irritation. |
| **Eye contact** | No known significant effects or critical hazards. |

**Symptoms related to the physical, chemical and toxicological characteristics**

| | |
|---|---|
| **Inhalation** | No specific data. |
| **Ingestion** | No specific data. |
| **Skin contact** | Adverse symptoms may include the following:<br>irritation<br>redness |
| **Eye contact** | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

**Potential immediate effects** Irritating to skin.

**Potential delayed effects** Not available.

**Long term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Suspected of causing cancer.

**Potential chronic health effects**

Not available.

**Conclusion/Summary [Product]** Not available.

**General** No known significant effects or critical hazards.

**Carcinogenicity** Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** No known significant effects or critical hazards.

**Reproductive toxicity** No known significant effects or critical hazards.

**Other information** Cutting the reel or sheet into smaller pieces might release glass fibers which can be harmful.

## SECTION 12: Ecological information

### 12.1 Toxicity

Not available.

**Conclusion/Summary [Product]** No known significant effects or critical hazards.

| Ingredient name | Conclusion/Summary |
|---|---|
| glass, oxide, chemicals | No known significant effects or critical hazards. |

### 12.2 Persistence and degradability

Not available.

**Conclusion/Summary [Product]** Not available.

| Ingredient name | Conclusion/Summary |
|---|---|
| glass, oxide, chemicals | No special recommendations. |

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient** Not available.

**Mobility** Not available.

### 12.5 Results of PBT and vPvB assessment

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| glass, oxide, chemicals | No | No | No | No | No | No | No |

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

**Product**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | - | - | - | - |
| **14.3 Transport hazard class(es)** | - | - | - | - |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | - | - | - |

**14.6 Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

No listed substance

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations**

**Industrial emissions (integrated pollution prevention and control) - Air** Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** Not listed

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

| | |
|---|---|
| **United States** | Not determined. |
| **Canada inventory** | Not determined. |
| **China** | Not determined. |
| **Japan** | **Japan inventory (CSCL)**: Not determined.<br>**Japan inventory (ISHL)**: Not determined. |
| **15.2 Chemical safety assessment** | Chemical Safety Assessments for all substances in this product are either Complete or Not applicable. |

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Skin Irrit. 2, H315<br>Carc. 2, H351 | Calculation method<br>Calculation method |

| | | |
|---|---|---|
| **Full text of abbreviated H statements** | H315<br>H351 | Causes skin irritation.<br>Suspected of causing cancer. |
| **Full text of classifications** | Carc. 2<br>Skin Irrit. 2 | CARCINOGENICITY - Category 2<br>SKIN CORROSION/IRRITATION - Category 2 |
| **Date of printing** | 12 August 2026 | |
| **Date of issue/ Date of revision** | 12 August 2026 | |
| **Date of previous issue** | 16 October 2023 | |
| **Version** | 3 | |

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# SAFETY DATA SHEET

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** **Grade GF/D Glass Microfiber Prefilter, 460 × 570 mm sheet (25 pcs)**

**Catalogue Number** 1823-915

9018239 15

**Product description** Not available.

**Product type** Solid.

**Other means of identification** Not available.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

| | **Identified uses** |
|---|---|
| Analytical chemistry.<br>Laboratory chemicals<br>Scientific research and development | |
| ☑ Consumer use | - |

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Cytiva
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA United Kingdom
+44 1494 508000

**Hours of operation**
08.30 - 17.00

**Person who prepared the SDS :** sds_author@cytiva.com

### 1.4 Emergency telephone number

**United Kingdom (UK)**

Cytiva UK
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA
t: 0870 606 1921

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Calll Collect).

**National advisory body/Poison Centre**

**United Kingdom (UK)**

Health professionals should contact the National Poisons Information Service (NPIS) by telephone, or use TOXBASE www.toxbase.org .

NPIS http://www.npis.org/ advise that others seeking specific information on poisons should contact:
In England and Wales: NHS Direct - 0845 4647 or 111
In Scotland: NHS 24 - 08454 24 24 24
In N Ireland: Contact your local GP or pharmacist during normal hours; click here (www.gpoutofhours.hscni.net/ ) for GP services Out-of-Hours.

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

**Product definition** Mixture

**Classification according to UK CLP/GHS**

Skin Irrit. 2, H315
Carc. 2, H351

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

**Ingredients of unknown toxicity** 100 percent of the mixture consists of component(s) of unknown acute oral toxicity
100 percent of the mixture consists of component(s) of unknown acute dermal toxicity
100 percent of the mixture consists of component(s) of unknown acute inhalation toxicity

**Ingredients of unknown ecotoxicity** Contains 100% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms**



**Signal word** Warning

**Hazard statements** Causes skin irritation.
Suspected of causing cancer.

**Precautionary statements**

**General** Not applicable.

**Prevention** Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Wash thoroughly after handling.

**Response** IF exposed or concerned: Get medical advice or attention. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

**Storage** Not applicable.

**Disposal** Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** Not applicable.

**Tactile warning of danger** Not applicable.

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** None known.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** Mixture

| Product/ingredient name | Identifiers | % | Classification | Type |
|---|---|---|---|---|
| glass, oxide, chemicals | REACH #: 01-2119488048-29<br>EC: 266-046-0<br>CAS: 65997-17-3 | 50 - 100 | Skin Irrit. 2, H315<br>Carc. 2, H351 | [1] [2] |

See Section 16 for the full text of the H statements declared above.

Type

[1] Substance classified with a physical, health or environmental hazard
[2] Substance with a workplace exposure limit

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

**Eye contact** Adverse symptoms may include the following:
pain or irritation
watering
redness

**Inhalation** No specific data.

**Skin contact** Adverse symptoms may include the following:
irritation
redness

**Ingestion** No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** None known.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** No specific fire or explosion hazard.

| | |
|---|---|
| **Hazardous combustion products** | No specific data. |

### 5.3 Advice for firefighters

| | |
|---|---|
| **Special precautions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **For non-emergency personnel** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| **For emergency responders** | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | |
|---|---|
| **Small spill** | Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **6.4 Reference to other sections** | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

| | |
|---|---|
| **Protective measures** | Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| **Advice on general occupational hygiene** | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

| | |
|---|---|
| **Recommendations** | Analytical chemistry. Laboratory chemicals. Scientific research and development. |
| **Industrial sector specific solutions** | Not available. |

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| glass, oxide, chemicals | **EH40/2005 WELs (United Kingdom (UK), 1/2020) [machine-made mineral fibre (except for refractory ceramic fibres and special purpose fibres)]**<br>TWA 8 hours: 5 mg/m³.<br>TWA 8 hours: 2 f/cm³. |

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures**

Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

Not available.

**PNECs**

Not available.

## 8.2 Exposure controls

**Appropriate engineering controls**

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures**

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection**

**Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

## 9.1 Information on basic physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state** | Solid. |
| **Colour** | White. |
| **Odour** | Odourless. |
| **Odour threshold** | Not available. |

| | |
|---|---|
| **pH** | Not applicable. |
| **Melting point/freezing point** | Not applicable. |
| **Initial boiling point and boiling range** | Not applicable. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not applicable. |
| **Flash point** | Not applicable. |
| **Auto-ignition temperature** | Not applicable. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Dynamic (room temperature): Not applicable.<br>Kinematic (room temperature): Not applicable.<br>Kinematic (40°C): Not applicable. |
| **Solubility in water** | Not applicable. |
| **Partition coefficient: n-octanol/ water** | Not applicable. |
| **Vapour pressure** | Not applicable. |
| **Evaporation rate** | Not available. |
| **Relative density** | Not available. |
| **Vapour density** | Not applicable. |
| **Explosive properties** | Not considered to be a product presenting a risk of explosion. |
| **Oxidising properties** | Not available. |

**Particle characteristics**

| | |
|---|---|
| **Median particle size** | Not available. |

### 9.2 Other information

| | |
|---|---|
| **Burning time** | Not available. |
| **Burning rate** | Not available. |
| **Solubility in water** | Not applicable. |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | The product is stable. |
| **10.3 Possibility of hazardous reactions** | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | No specific data. |
| **10.5 Incompatible materials** | No specific data. |
| **10.6 Hazardous decomposition products** | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

Not available.

| | |
|---|---|
| **Conclusion/Summary [Product]** | Not available. |

**Acute toxicity estimates**

N/A

**Skin corrosion/irritation**

Not available.

| | |
|---|---|
| **Conclusion/Summary [Product]** | Irritating to skin. |

**Serious eye damage/eye irritation**

Not available.

**Conclusion/Summary [Product]** Repeated exposure of the eyes to a low level of dust can produce eye irritation.

**Respiratory corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung damage.

**Respiratory or skin sensitization**

Not available.

**Skin**

**Conclusion/Summary [Product]** Not available.

**Respiratory**

**Conclusion/Summary [Product]** Not available.

**Germ cell mutagenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Carcinogenicity**

Not available.

**Conclusion/Summary [Product]** If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Reproductive toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

| | |
|---|---|
| **Information on likely routes of exposure** | Routes of entry anticipated: Dermal, Inhalation, Eyes.<br>Routes of entry not anticipated: Oral. |

**Potential acute health effects**

| | |
|---|---|
| **Inhalation** | No known significant effects or critical hazards. |
| **Ingestion** | No known significant effects or critical hazards. |
| **Skin contact** | Causes skin irritation. |
| **Eye contact** | No known significant effects or critical hazards. |

**Symptoms related to the physical, chemical and toxicological characteristics**

| | |
|---|---|
| **Inhalation** | No specific data. |
| **Ingestion** | No specific data. |
| **Skin contact** | Adverse symptoms may include the following:<br>irritation<br>redness |
| **Eye contact** | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

**Potential immediate effects** Irritating to skin.

**Potential delayed effects** Not available.

**Long term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Suspected of causing cancer.

**Potential chronic health effects**

Not available.

**Conclusion/Summary [Product]** Not available.

**General** No known significant effects or critical hazards.

**Carcinogenicity** Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** No known significant effects or critical hazards.

**Reproductive toxicity** No known significant effects or critical hazards.

**Other information** Cutting the reel or sheet into smaller pieces might release glass fibers which can be harmful.

## SECTION 12: Ecological information

### 12.1 Toxicity

Not available.

**Conclusion/Summary [Product]** No known significant effects or critical hazards.

| Ingredient name | Conclusion/Summary |
|---|---|
| glass, oxide, chemicals | No known significant effects or critical hazards. |

### 12.2 Persistence and degradability

Not available.

**Conclusion/Summary [Product]** Not available.

| Ingredient name | Conclusion/Summary |
|---|---|
| glass, oxide, chemicals | No special recommendations. |

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient** Not available.

**Mobility** Not available.

### 12.5 Results of PBT and vPvB assessment

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| glass, oxide, chemicals | No | No | No | No | No | No | No |

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

**Product**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | - | - | - | - |
| **14.3 Transport hazard class(es)** | - | - | - | - |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | - | - | - |

**14.6 Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

No listed substance

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations**

**Industrial emissions (integrated pollution prevention and control) - Air** Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** Not listed

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

| | |
|---|---|
| **United States** | Not determined. |
| **Canada inventory** | Not determined. |
| **China** | Not determined. |
| **Japan** | **Japan inventory (CSCL)**: Not determined.<br>**Japan inventory (ISHL)**: Not determined. |
| **15.2 Chemical safety assessment** | Chemical Safety Assessments for all substances in this product are either Complete or Not applicable. |

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Skin Irrit. 2, H315<br>Carc. 2, H351 | Calculation method<br>Calculation method |

| | | |
|---|---|---|
| **Full text of abbreviated H statements** | H315<br>H351 | Causes skin irritation.<br>Suspected of causing cancer. |
| **Full text of classifications** | Carc. 2<br>Skin Irrit. 2 | CARCINOGENICITY - Category 2<br>SKIN CORROSION/IRRITATION - Category 2 |
| **Date of printing** | 12 August 2026 | |
| **Date of issue/ Date of revision** | 12 August 2026 | |
| **Date of previous issue** | 16 October 2023 | |
| **Version** | 3 | |

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# SAFETY DATA SHEET

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** **GF/D, 250 mm x 250 mm, 25 pack**

**Catalogue Number** 1823-10159

**Product description** Not available.

**Product type** Solid.

**Other means of identification** Not available.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

| | **Identified uses** |
|---|---|
| Analytical chemistry.<br>Laboratory chemicals<br>Scientific research and development | |
| ☑ Consumer use | - |

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Cytiva
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA United Kingdom
+44 1494 508000

**Hours of operation**
08.30 - 17.00

**Person who prepared the SDS :** sds_author@cytiva.com

### 1.4 Emergency telephone number

**United Kingdom (UK)**

Cytiva UK
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA
t: 0870 606 1921

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Calll Collect).

**National advisory body/Poison Centre**

**United Kingdom (UK)**

Health professionals should contact the National Poisons Information Service (NPIS) by telephone, or use TOXBASE www.toxbase.org .

NPIS http://www.npis.org/ advise that others seeking specific information on poisons should contact:
In England and Wales: NHS Direct - 0845 4647 or 111
In Scotland: NHS 24 - 08454 24 24 24
In N Ireland: Contact your local GP or pharmacist during normal hours; click here (www.gpoutofhours.hscni.net/ ) for GP services Out-of-Hours.

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

**Product definition** Mixture

**Classification according to UK CLP/GHS**

Skin Irrit. 2, H315
Carc. 2, H351

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

| | |
|---|---|
| **Ingredients of unknown toxicity** | 100 percent of the mixture consists of component(s) of unknown acute oral toxicity<br>100 percent of the mixture consists of component(s) of unknown acute dermal toxicity<br>100 percent of the mixture consists of component(s) of unknown acute inhalation toxicity |
| **Ingredients of unknown ecotoxicity** | Contains 100% of components with unknown hazards to the aquatic environment |

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms**



| | |
|---|---|
| **Signal word** | Warning |
| **Hazard statements** | Causes skin irritation.<br>Suspected of causing cancer. |

**Precautionary statements**

| | |
|---|---|
| **General** | Not applicable. |
| **Prevention** | Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Wash thoroughly after handling. |
| **Response** | IF exposed or concerned: Get medical advice or attention. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. |
| **Storage** | Not applicable. |
| **Disposal** | Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| **Supplemental label elements** | Not applicable. |
| **Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** | Not applicable. |

**Special packaging requirements**

| | |
|---|---|
| **Containers to be fitted with child-resistant fastenings** | Not applicable. |
| **Tactile warning of danger** | Not applicable. |

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

| | |
|---|---|
| **Other hazards which do not result in classification** | None known. |

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** Mixture

| Product/ingredient name | Identifiers | % | Classification | Type |
|---|---|---|---|---|
| glass, oxide, chemicals | REACH #: 01-2119488048-29<br>EC: 266-046-0<br>CAS: 65997-17-3 | 50 - 100 | Skin Irrit. 2, H315<br>Carc. 2, H351 | [1] [2] |

See Section 16 for the full text of the H statements declared above.

Type

[1] Substance classified with a physical, health or environmental hazard
[2] Substance with a workplace exposure limit

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

**Eye contact** Adverse symptoms may include the following:
pain or irritation
watering
redness

**Inhalation** No specific data.

**Skin contact** Adverse symptoms may include the following:
irritation
redness

**Ingestion** No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** None known.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** No specific fire or explosion hazard.

| | |
|---|---|
| **Hazardous combustion products** | No specific data. |

### 5.3 Advice for firefighters

| | |
|---|---|
| **Special precautions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **For non-emergency personnel** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| **For emergency responders** | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | |
|---|---|
| **Small spill** | Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **6.4 Reference to other sections** | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

| | |
|---|---|
| **Protective measures** | Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| **Advice on general occupational hygiene** | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

| | |
|---|---|
| **Recommendations** | Analytical chemistry. Laboratory chemicals. Scientific research and development. |
| **Industrial sector specific solutions** | Not available. |

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| glass, oxide, chemicals | **EH40/2005 WELs (United Kingdom (UK), 1/2020) [machine-made mineral fibre (except for refractory ceramic fibres and special purpose fibres)]**<br>TWA 8 hours: 5 mg/m³.<br>TWA 8 hours: 2 f/cm³. |

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures**

Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

Not available.

**PNECs**

Not available.

## 8.2 Exposure controls

**Appropriate engineering controls**

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures**

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection**

**Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

## 9.1 Information on basic physical and chemical properties

**Appearance**

**Physical state** Solid.

**Colour** White.

**Odour** Odourless.

**Odour threshold** Not available.

| | |
|---|---|
| **pH** | Not applicable. |
| **Melting point/freezing point** | Not applicable. |
| **Initial boiling point and boiling range** | Not applicable. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not applicable. |
| **Flash point** | Not applicable. |
| **Auto-ignition temperature** | Not applicable. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Dynamic (room temperature): Not applicable.<br>Kinematic (room temperature): Not applicable.<br>Kinematic (40°C): Not applicable. |
| **Solubility in water** | Not applicable. |
| **Partition coefficient: n-octanol/ water** | Not applicable. |
| **Vapour pressure** | Not applicable. |
| **Evaporation rate** | Not available. |
| **Relative density** | Not available. |
| **Vapour density** | Not applicable. |
| **Explosive properties** | Not considered to be a product presenting a risk of explosion. |
| **Oxidising properties** | Not available. |

**Particle characteristics**

| | |
|---|---|
| **Median particle size** | Not available. |

### 9.2 Other information

| | |
|---|---|
| **Burning time** | Not available. |
| **Burning rate** | Not available. |
| **Solubility in water** | Not applicable. |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | The product is stable. |
| **10.3 Possibility of hazardous reactions** | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | No specific data. |
| **10.5 Incompatible materials** | No specific data. |
| **10.6 Hazardous decomposition products** | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

Not available.

| | |
|---|---|
| **Conclusion/Summary [Product]** | Not available. |

**Acute toxicity estimates**

N/A

**Skin corrosion/irritation**

Not available.

| | |
|---|---|
| **Conclusion/Summary [Product]** | Irritating to skin. |

**Serious eye damage/eye irritation**

Not available.

**Conclusion/Summary [Product]** Repeated exposure of the eyes to a low level of dust can produce eye irritation.

**Respiratory corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung damage.

**Respiratory or skin sensitization**

Not available.

**Skin**

**Conclusion/Summary [Product]** Not available.

**Respiratory**

**Conclusion/Summary [Product]** Not available.

**Germ cell mutagenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Carcinogenicity**

Not available.

**Conclusion/Summary [Product]** If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Reproductive toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

| | |
|---|---|
| **Information on likely routes of exposure** | Routes of entry anticipated: Dermal, Inhalation, Eyes.<br>Routes of entry not anticipated: Oral. |

**Potential acute health effects**

| | |
|---|---|
| **Inhalation** | No known significant effects or critical hazards. |
| **Ingestion** | No known significant effects or critical hazards. |
| **Skin contact** | Causes skin irritation. |
| **Eye contact** | No known significant effects or critical hazards. |

**Symptoms related to the physical, chemical and toxicological characteristics**

| | |
|---|---|
| **Inhalation** | No specific data. |
| **Ingestion** | No specific data. |
| **Skin contact** | Adverse symptoms may include the following:<br>irritation<br>redness |
| **Eye contact** | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

**Potential immediate effects** Irritating to skin.

**Potential delayed effects** Not available.

**Long term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Suspected of causing cancer.

**Potential chronic health effects**

Not available.

**Conclusion/Summary [Product]** Not available.

**General** No known significant effects or critical hazards.

**Carcinogenicity** Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** No known significant effects or critical hazards.

**Reproductive toxicity** No known significant effects or critical hazards.

**Other information** Cutting the reel or sheet into smaller pieces might release glass fibers which can be harmful.

## SECTION 12: Ecological information

### 12.1 Toxicity

Not available.

**Conclusion/Summary [Product]** No known significant effects or critical hazards.

| Ingredient name | Conclusion/Summary |
|---|---|
| glass, oxide, chemicals | No known significant effects or critical hazards. |

### 12.2 Persistence and degradability

Not available.

**Conclusion/Summary [Product]** Not available.

| Ingredient name | Conclusion/Summary |
|---|---|
| glass, oxide, chemicals | No special recommendations. |

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient** Not available.

**Mobility** Not available.

### 12.5 Results of PBT and vPvB assessment

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| glass, oxide, chemicals | No | No | No | No | No | No | No |

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

**Product**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | - | - | - | - |
| **14.3 Transport hazard class(es)** | - | - | - | - |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | - | - | - |

**14.6 Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

No listed substance

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations**

**Industrial emissions (integrated pollution prevention and control) - Air** Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** Not listed

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

| | |
|---|---|
| **United States** | Not determined. |
| **Canada inventory** | Not determined. |
| **China** | Not determined. |
| **Japan** | **Japan inventory (CSCL)**: Not determined.<br>**Japan inventory (ISHL)**: Not determined. |
| **15.2 Chemical safety assessment** | Chemical Safety Assessments for all substances in this product are either Complete or Not applicable. |

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Skin Irrit. 2, H315<br>Carc. 2, H351 | Calculation method<br>Calculation method |

| | | |
|---|---|---|
| **Full text of abbreviated H statements** | H315<br>H351 | Causes skin irritation.<br>Suspected of causing cancer. |
| **Full text of classifications** | Carc. 2<br>Skin Irrit. 2 | CARCINOGENICITY - Category 2<br>SKIN CORROSION/IRRITATION - Category 2 |
| **Date of printing** | 12 August 2026 | |
| **Date of issue/ Date of revision** | 12 August 2026 | |
| **Date of previous issue** | 16 October 2023 | |
| **Version** | 3 | |

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# SAFETY DATA SHEET

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** **Custom ReadyToProcess™ CM Sepharose™ FF 31L (600/110)**

**Catalogue Number** 29511633

9 0 2 9 5 1 1 6 3 3

**Product description** Not available.

**Product type** Liquid.

**Other means of identification** Not available.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

| | **Identified uses** |
|---|---|
| Laboratory chemicals<br>Liquid chromatography.<br>Scientific research and development | |
| ☑ Consumer use | - |

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Cytiva
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA United Kingdom
+44 1494 508000

**Person who prepared the SDS :** sds_author@cytiva.com

**Hours of operation**
08.30 - 17.00

### 1.4 Emergency telephone number

**United Kingdom (UK)**

Cytiva UK
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA
t: 0870 606 1921

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Calll Collect).

**National advisory body/Poison Centre**

**United Kingdom (UK)**

Health professionals should contact the National Poisons Information Service (NPIS) by telephone, or use TOXBASE www.toxbase.org .

NPIS http://www.npis.org/ advise that others seeking specific information on poisons should contact:
In England and Wales: NHS Direct - 0845 4647 or 111
In Scotland: NHS 24 - 08454 24 24 24
In N Ireland: Contact your local GP or pharmacist during normal hours; click here (www.gpoutofhours.hscni.net/ ) for GP services Out-of-Hours.

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

**Product definition** Mixture

**Classification according to UK CLP/GHS**

Flam. Liq. 3, H226

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

**Ingredients of unknown toxicity** 16.5 percent of the mixture consists of component(s) of unknown acute dermal toxicity

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms**



**Signal word** Warning

**Hazard statements** Flammable liquid and vapour.

**Precautionary statements**

**General** Not applicable.

**Prevention** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Response** Not applicable.

**Storage** Not applicable.

**Disposal** Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** Not applicable.

**Tactile warning of danger** Not applicable.

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** None known.

# SECTION 3: Composition/information on ingredients

**3.2 Mixtures** Mixture

| Product/ingredient name | Identifiers | % | Classification | Type |
|---|---|---|---|---|
| ethanol | REACH #: 01-2119457610-43<br>EC: 200-578-6<br>CAS: 64-17-5<br>Index: 603-002-00-5 | 14 - 19 | Flam. Liq. 2, H225 | [1] [2] |

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a physical, health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

| | |
|---|---|
| **Eye contact** | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| **Inhalation** | Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| **Skin contact** | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| **Ingestion** | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. |
| **Protection of first-aiders** | No action shall be taken involving any personal risk or without suitable training. |

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

| | |
|---|---|
| **Eye contact** | No specific data. |
| **Inhalation** | No specific data. |
| **Skin contact** | No specific data. |
| **Ingestion** | No specific data. |

### 4.3 Indication of any immediate medical attention and special treatment needed

| | |
|---|---|
| **Notes to physician** | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| **Specific treatments** | No specific treatment. |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

| | |
|---|---|
| **Suitable extinguishing media** | Use dry chemical, $CO_2$, water spray (fog) or foam. |
| **Unsuitable extinguishing media** | Do not use water jet. |

### 5.2 Special hazards arising from the substance or mixture

| | |
|---|---|
| **Hazards from the substance or mixture** | Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. |
| **Hazardous combustion products** | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide |

### 5.3 Advice for firefighters

| | |
|---|---|
| **Special precautions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **For non-emergency personnel** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Put on appropriate personal protective equipment. |
| **For emergency responders** | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | |
|---|---|
| **Small spill** | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |

| | |
|---|---|
| **Large spill** | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. |
| **6.4 Reference to other sections** | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

| | |
|---|---|
| **Protective measures** | Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| **Advice on general occupational hygiene** | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

### 7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 4 to 30°C (39.2 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

**Seveso Directive - Reporting thresholds**

**Danger criteria**

| Category | Notification and MAPP threshold | Safety report threshold |
|---|---|---|
| P5c | 5000 tonnes | 50000 tonnes |

### 7.3 Specific end use(s)

| | |
|---|---|
| **Recommendations** | Laboratory chemicals. Liquid chromatography. Scientific research and development. |
| **Industrial sector specific solutions** | Not available. |

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| ethanol | **EH40/2005 WELs (United Kingdom (UK), 1/2020)**<br>TWA 8 hours: 1000 ppm.<br>TWA 8 hours: 1920 mg/m³. |

**Biological exposure indices**

No exposure indices known.

| | |
|---|---|
| **Recommended monitoring procedures** | Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required. |

**DNELs/DMELs**

| Product/ingredient name | Result |
|---|---|

ethanol

**DNEL - Workers - Long term - Inhalation**
380 mg/m³
Effects: Systemic

**DNEL - General population - Long term - Oral**
87 mg/kg bw/day
Effects: Systemic

**DNEL - General population - Long term - Inhalation**
114 mg/m³
Effects: Systemic

**DNEL - General population - Long term - Dermal**
206 mg/kg bw/day
Effects: Systemic

**DNEL - Workers - Long term - Dermal**
343 mg/kg bw/day
Effects: Systemic

**DNEL - General population - Short term - Inhalation**
950 mg/m³
Effects: Local

**DNEL - Workers - Short term - Inhalation**
1900 mg/m³
Effects: Local

**PNECs**

Not available.

## 8.2 Exposure controls

**Appropriate engineering controls**

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: safety glasses with side-shields

**Skin protection**

**Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. 1 - 4 hours (breakthrough time): butyl rubber, neoprene

**Body protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to British Standard BS EN 1149 for further information on material and design requirements and test methods. Recommended: lab coat

**Other skin protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: A respirator is not needed under normal and intended conditions of product use.

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state** | Liquid. |
| **Colour** | White to yellowish. |
| **Odour** | Alcohol-like. [Slight] |
| **Odour threshold** | 180 ppm |
| **pH** | 5.5 to 8.5 [Conc. (% w/w): 100%] |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not available. |
| **Flash point** | Closed cup: 38 to 43°C |
| **Auto-ignition temperature** | Not available. |

| Ingredient name | °C | Method |
|---|---|---|
| ethanol | 455 | DIN 51794 |

| | |
|---|---|
| **Decomposition temperature** | Not available. |
| **Viscosity** | Dynamic (room temperature): Not available.<br>Kinematic (room temperature): Not available.<br>Kinematic (40°C): Not available. |

**Solubility(ies)**

| Media | Result |
|---|---|
| cold water | Easily soluble |
| hot water | Easily soluble |

| | |
|---|---|
| **Solubility in water** | Not available. |
| **Miscible with water** | Yes. |
| **Partition coefficient: n-octanol/ water** | Not applicable. |
| **Vapour pressure** | Not available. |

| | Vapour Pressure at 20˚C | | | Vapour pressure at 50˚C | | |
|---|---|---|---|---|---|---|
| Ingredient name | mm Hg | kPa | Method | mm Hg | kPa | Method |
| ethanol | 42.94865 | 5.7 | | | | |
| water | 17.5 | 2.3 | | | | |
| Agarose | 0 | 0 | | | | |

| | |
|---|---|
| **Evaporation rate** | Not available. |
| **Relative density** | Not available. |
| **Vapour density** | Not available. |
| **Explosive properties** | Not available. |
| **Oxidising properties** | Not available. |

**Particle characteristics**

| | |
|---|---|
| **Median particle size** | Not applicable. |

### 9.2 Other information

Not available.

| | |
|---|---|
| **Burning time** | Not applicable. |
| **Burning rate** | Not applicable. |
| **Solubility in water** | Not available. |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | The product is stable. |
| **10.3 Possibility of hazardous reactions** | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. |
| **10.5 Incompatible materials** | Reactive or incompatible with the following materials:<br>oxidising materials |
| **10.6 Hazardous decomposition products** | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

| Product/ingredient name | Result |
|---|---|
| ethanol | **Rat - Oral - LD50**<br>7060 mg/kg<br>Toxic effects: Lung, Thorax, or Respiration - Other changes<br><br>**Rat - Inhalation - LC50 Vapour**<br>124700 mg/m³ [4 hours] |

**Conclusion/Summary [Product]** Not available.

**Acute toxicity estimates**

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|---|---|---|---|---|
| ethanol | 7000 | N/A | N/A | 124.7 | N/A |

**Skin corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Repeated exposure may cause skin dryness or cracking.

**Serious eye damage/eye irritation**

Not available.

**Conclusion/Summary [Product]** Not available.

**Respiratory corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Not available.

**Respiratory or skin sensitization**

Not available.

**Skin**

**Conclusion/Summary [Product]** Not available.

**Respiratory**

**Conclusion/Summary [Product]** Not available.

**Germ cell mutagenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Carcinogenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Reproductive toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

| | |
|---|---|
| **Information on likely routes of exposure** | Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. |

**Potential acute health effects**

| | |
|---|---|
| **Inhalation** | No known significant effects or critical hazards. |
| **Ingestion** | No known significant effects or critical hazards. |
| **Skin contact** | No known significant effects or critical hazards. |
| **Eye contact** | No known significant effects or critical hazards. |

**Symptoms related to the physical, chemical and toxicological characteristics**

| | |
|---|---|
| **Inhalation** | No specific data. |
| **Ingestion** | No specific data. |
| **Skin contact** | No specific data. |
| **Eye contact** | No specific data. |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

| | |
|---|---|
| **Potential immediate effects** | Not available. |
| **Potential delayed effects** | Not available. |

**Long term exposure**

| | |
|---|---|
| **Potential immediate effects** | Not available. |
| **Potential delayed effects** | Not available. |

**Potential chronic health effects**

Not available.

| | |
|---|---|
| **Conclusion/Summary [Product]** | Not available. |
| **General** | No known significant effects or critical hazards. |
| **Carcinogenicity** | No known significant effects or critical hazards. |
| **Mutagenicity** | No known significant effects or critical hazards. |
| **Reproductive toxicity** | No known significant effects or critical hazards. |
| **Other information** | Not available. |

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name | Result |
|---|---|
| ethanol | **Acute - LC50 - Marine water**<br>Fish - Bleak - *Alburnus alburnus*<br>Size: 8 to 10 cm<br>11 g/l [96 hours]<br>Effect: Mortality<br><br>**Chronic - NOEC - Marine water**<br>Algae - Green algae - *Ulva pertusa*<br>4.995 mg/l [96 hours]<br>Effect: Reproduction<br><br>**Acute - EC50 - Fresh water**<br>Crustaceans - Ostracod - *Cypris subglobosa*<br>1074 mg/l [48 hours]<br>Effect: Intoxication<br><br>**Chronic - NOEC - Fresh water**<br>Daphnia - Water flea - *Daphnia magna* - Neonate<br>Age: <24 hours<br>100 µl/l [21 days]<br>Effect: Mortality<br><br>**Acute - EC50 - Marine water**<br>Algae - Green algae - *Ulva pertusa*<br>Size: 9.4 mm<br>3306 mg/l [96 hours]<br>Effect: Reproduction |

**Conclusion/Summary [Product]** Not available.

### 12.2 Persistence and degradability

| Product/ingredient name | Result |
|---|---|
| ethanol | **Aerobic**<br>100% [20 days] - Readily |

**Conclusion/Summary [Product]** Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| ethanol | - | - | Readily |

### 12.3 Bioaccumulative potential

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| ≥10 - ≤25 | -0.35 | 0.66 | Low |

### 12.4 Mobility in soil

**Soil/water partition coefficient** Not available.

**Mobility** Not available.

### 12.5 Results of PBT and vPvB assessment

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ethanol | No | N/A | No | No | No | N/A | No |

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

**Product**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Waste catalogue**

| Waste code | Waste designation |
|---|---|
| 07 07 99 | wastes not otherwise specified |

**Packaging**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | - | - | - | - |
| **14.3 Transport hazard class(es)** | - | - | - | - |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | - | - | **Remarks** IATA Special Provision A 58 - Aqueous solutions containing 24% or less alcohol by volume is not subject to these regulations. |

**14.6 Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

| Product/ingredient name | % | Designation [Usage] |
|---|---|---|
| Media in 20% EtOH (Sepharose only) (4-30 C) - GROUP | ≥90 | 3 |

**Labelling** Not applicable.

**Seveso Directive**

This product is controlled under the Seveso Directive.

**Danger criteria**

**Category**
P5c

**EU regulations**

| | |
|---|---|
| **Industrial emissions (integrated pollution prevention and control) - Air** | Not listed |
| **Industrial emissions (integrated pollution prevention and control) - Water** | Not listed |

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

| | |
|---|---|
| **United States** | Not determined. |
| **Canada inventory** | All components are listed or exempted. |
| **China** | All components are listed or exempted. |
| **Japan** | **Japan inventory (CSCL)**: All components are listed or exempted.<br>**Japan inventory (ISHL)**: Not determined. |
| **15.2 Chemical safety assessment** | This product contains substances for which Chemical Safety Assessments are still required. |

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Flam. Liq. 3, H226 | On basis of test data |

| | | |
|---|---|---|
| **Full text of abbreviated H statements** | H225 | Highly flammable liquid and vapour. |
| | H226 | Flammable liquid and vapour. |
| **Full text of classifications** | Flam. Liq. 2 | FLAMMABLE LIQUIDS - Category 2 |
| | Flam. Liq. 3 | FLAMMABLE LIQUIDS - Category 3 |

**Date of printing** 08 August 2025

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**Date of previous issue** 14 October 2023

**Version** 3

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# SAFETY DATA SHEET

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** **BS2000, 110 mm x 90 m, 1 pack**

**Catalogue Number** 9246900620

9 0 9 2 4 6 9 0 0 6 2 0

| | |
|---|---|
| **Product description** | Not available. |
| **Product type** | Solid. |
| **Other means of identification** | Not available. |

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

| | **Identified uses** |
|---|---|
| Analytical chemistry.<br>Laboratory chemicals<br>Scientific research and development | |
| ☑ Consumer use | - |

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Cytiva
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA United Kingdom
+44 1494 508000

**Hours of operation**
08.30 - 17.00

**Person who prepared the SDS :** sds_author@cytiva.com

### 1.4 Emergency telephone number

**United Kingdom (UK)**

Cytiva UK
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA
t: 0870 606 1921

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Calll Collect).

**National advisory body/Poison Centre**

**United Kingdom (UK)**

Health professionals should contact the National Poisons Information Service (NPIS) by telephone, or use TOXBASE www.toxbase.org .

NPIS http://www.npis.org/ advise that others seeking specific information on poisons should contact:
In England and Wales: NHS Direct - 0845 4647 or 111
In Scotland: NHS 24 - 08454 24 24 24
In N Ireland: Contact your local GP or pharmacist during normal hours; click here (www.gpoutofhours.hscni.net/ ) for GP services Out-of-Hours.

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

**Product definition** Mixture

**Classification according to UK CLP/GHS**

Skin Irrit. 2, H315
Carc. 2, H351

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

| | |
|---|---|
| **Ingredients of unknown toxicity** | 100 percent of the mixture consists of component(s) of unknown acute oral toxicity<br>100 percent of the mixture consists of component(s) of unknown acute dermal toxicity<br>100 percent of the mixture consists of component(s) of unknown acute inhalation toxicity |
| **Ingredients of unknown ecotoxicity** | Contains 100% of components with unknown hazards to the aquatic environment |

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms**



| | |
|---|---|
| **Signal word** | Warning |
| **Hazard statements** | Causes skin irritation.<br>Suspected of causing cancer. |

**Precautionary statements**

| | |
|---|---|
| **General** | Not applicable. |
| **Prevention** | Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Wash thoroughly after handling. |
| **Response** | IF exposed or concerned: Get medical advice or attention. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. |
| **Storage** | Not applicable. |
| **Disposal** | Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| **Supplemental label elements** | Not applicable. |
| **Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** | Not applicable. |

**Special packaging requirements**

| | |
|---|---|
| **Containers to be fitted with child-resistant fastenings** | Not applicable. |
| **Tactile warning of danger** | Not applicable. |

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

| | |
|---|---|
| **Other hazards which do not result in classification** | None known. |

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** Mixture

| Product/ingredient name | Identifiers | % | Classification | Type |
|---|---|---|---|---|
| glass, oxide, chemicals | REACH #: 01-2119488048-29<br>EC: 266-046-0<br>CAS: 65997-17-3 | 50 - 100 | Skin Irrit. 2, H315<br>Carc. 2, H351 | [1] [2] |

See Section 16 for the full text of the H statements declared above.

Type

[1] Substance classified with a physical, health or environmental hazard
[2] Substance with a workplace exposure limit

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

**Eye contact** Adverse symptoms may include the following:
pain or irritation
watering
redness

**Inhalation** No specific data.

**Skin contact** Adverse symptoms may include the following:
irritation
redness

**Ingestion** No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** None known.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** No specific fire or explosion hazard.

| | |
|---|---|
| **Hazardous combustion products** | No specific data. |

### 5.3 Advice for firefighters

| | |
|---|---|
| **Special precautions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **For non-emergency personnel** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| **For emergency responders** | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | |
|---|---|
| **Small spill** | Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. |
| **6.4 Reference to other sections** | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

| | |
|---|---|
| **Protective measures** | Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| **Advice on general occupational hygiene** | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

| | |
|---|---|
| **Recommendations** | Analytical chemistry. Laboratory chemicals. Scientific research and development. |
| **Industrial sector specific solutions** | Not available. |

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| glass, oxide, chemicals | **EH40/2005 WELs (United Kingdom (UK), 1/2020) [machine-made mineral fibre (except for refractory ceramic fibres and special purpose fibres)]**<br>TWA 8 hours: 5 mg/m³.<br>TWA 8 hours: 2 f/cm³. |

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures**

Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

Not available.

**PNECs**

Not available.

## 8.2 Exposure controls

**Appropriate engineering controls**

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures**

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection**

**Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

## 9.1 Information on basic physical and chemical properties

**Appearance**

**Physical state** Solid.

**Colour** White.

**Odour** Odourless.

**Odour threshold** Not available.

| | |
|---|---|
| **pH** | Not applicable. |
| **Melting point/freezing point** | Not applicable. |
| **Initial boiling point and boiling range** | Not applicable. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not applicable. |
| **Flash point** | Not applicable. |
| **Auto-ignition temperature** | Not applicable. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Dynamic (room temperature): Not applicable.<br>Kinematic (room temperature): Not applicable.<br>Kinematic (40°C): Not applicable. |
| **Solubility in water** | Not applicable. |
| **Partition coefficient: n-octanol/ water** | Not applicable. |
| **Vapour pressure** | Not applicable. |
| **Evaporation rate** | Not available. |
| **Relative density** | Not available. |
| **Vapour density** | Not applicable. |
| **Explosive properties** | Not considered to be a product presenting a risk of explosion. |
| **Oxidising properties** | Not available. |

**Particle characteristics**

| | |
|---|---|
| **Median particle size** | Not available. |

### 9.2 Other information

| | |
|---|---|
| **Burning time** | Not available. |
| **Burning rate** | Not available. |
| **Solubility in water** | Not applicable. |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | The product is stable. |
| **10.3 Possibility of hazardous reactions** | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | No specific data. |
| **10.5 Incompatible materials** | No specific data. |
| **10.6 Hazardous decomposition products** | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

Not available.

| | |
|---|---|
| **Conclusion/Summary [Product]** | Not available. |

**Acute toxicity estimates**

N/A

**Skin corrosion/irritation**

Not available.

| | |
|---|---|
| **Conclusion/Summary [Product]** | Irritating to skin. |

**Serious eye damage/eye irritation**

Not available.

**Conclusion/Summary [Product]** Repeated exposure of the eyes to a low level of dust can produce eye irritation.

**Respiratory corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung damage.

**Respiratory or skin sensitization**

Not available.

**Skin**

**Conclusion/Summary [Product]** Not available.

**Respiratory**

**Conclusion/Summary [Product]** Not available.

**Germ cell mutagenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Carcinogenicity**

Not available.

**Conclusion/Summary [Product]** If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Reproductive toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

| | |
|---|---|
| **Information on likely routes of exposure** | Routes of entry anticipated: Dermal, Inhalation, Eyes.<br>Routes of entry not anticipated: Oral. |

**Potential acute health effects**

| | |
|---|---|
| **Inhalation** | No known significant effects or critical hazards. |
| **Ingestion** | No known significant effects or critical hazards. |
| **Skin contact** | Causes skin irritation. |
| **Eye contact** | No known significant effects or critical hazards. |

**Symptoms related to the physical, chemical and toxicological characteristics**

| | |
|---|---|
| **Inhalation** | No specific data. |
| **Ingestion** | No specific data. |
| **Skin contact** | Adverse symptoms may include the following:<br>irritation<br>redness |
| **Eye contact** | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

**Potential immediate effects** Irritating to skin.

**Potential delayed effects** Not available.

**Long term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Suspected of causing cancer.

**Potential chronic health effects**

Not available.

**Conclusion/Summary [Product]** Not available.

**General** No known significant effects or critical hazards.

**Carcinogenicity** Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** No known significant effects or critical hazards.

**Reproductive toxicity** No known significant effects or critical hazards.

**Other information** Cutting the reel or sheet into smaller pieces might release glass fibers which can be harmful.

## SECTION 12: Ecological information

### 12.1 Toxicity

Not available.

**Conclusion/Summary [Product]** No known significant effects or critical hazards.

| Ingredient name | Conclusion/Summary |
|---|---|
| glass, oxide, chemicals | No known significant effects or critical hazards. |

### 12.2 Persistence and degradability

Not available.

**Conclusion/Summary [Product]** Not available.

| Ingredient name | Conclusion/Summary |
|---|---|
| glass, oxide, chemicals | No special recommendations. |

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient** Not available.

**Mobility** Not available.

### 12.5 Results of PBT and vPvB assessment

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| glass, oxide, chemicals | No | No | No | No | No | No | No |

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

**Product**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | - | - | - | - |
| **14.3 Transport hazard class(es)** | - | - | - | - |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | - | - | - |

**14.6 Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

No listed substance

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations**

**Industrial emissions (integrated pollution prevention and control) - Air** Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** Not listed

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

| | |
|---|---|
| **United States** | Not determined. |
| **Canada inventory** | Not determined. |
| **China** | Not determined. |
| **Japan** | **Japan inventory (CSCL)**: Not determined.<br>**Japan inventory (ISHL)**: Not determined. |
| **15.2 Chemical safety assessment** | Chemical Safety Assessments for all substances in this product are either Complete or Not applicable. |

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Skin Irrit. 2, H315<br>Carc. 2, H351 | Calculation method<br>Calculation method |

| | | |
|---|---|---|
| **Full text of abbreviated H statements** | H315<br>H351 | Causes skin irritation.<br>Suspected of causing cancer. |
| **Full text of classifications** | Carc. 2<br>Skin Irrit. 2 | CARCINOGENICITY - Category 2<br>SKIN CORROSION/IRRITATION - Category 2 |
| **Date of printing** | 12 August 2026 | |
| **Date of issue/ Date of revision** | 12 August 2026 | |
| **Date of previous issue** | 16 October 2023 | |
| **Version** | 4 | |

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# SAFETY DATA SHEET

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** **DMEM/F-12 Modified, with 2.50 mM L-Glutamine, 15 mM HEPES, 110 mg/L Sodium Pyruvate**

**Catalogue Number** SH30261

90SH30261

**Product description** Not available.

**Product type** Liquid.

**Other means of identification** Not available.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

For Further Manufacturing or Research Use. Not for Diagnostic or Therapeutic Use.

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Cytiva Austria
Kremplstr. 5
4061 Pasching
AUSTRIA
Phone: +43 7229 64865

HyClone Laboratories
925 West 1800 South
Logan, Utah 84321
Phone; (435) 792-8000

Cytiva Singapore
1 Maritime Square #13-01
Harbourfront Centre
Singapore 099253

**Hours of operation**
Mo. - Fr.
08.30 - 17.00

**Person who prepared the SDS:** sds_author@cytiva.com

### 1.4 Emergency telephone number

**United Kingdom (UK)**

Cytiva Austria
Kremplstr. 5
4061 Pasching
AUSTRIA
Phone: +43 7229 64865

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Calll Collect).

**National advisory body/Poison Centre**

**United Kingdom (UK)**

National Poison Information Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER
Tel.: +44 (171)635 91 91

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

**Product definition** Mixture

**Classification according to UK CLP/GHS**

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms**

**Signal word** No signal word.

**Hazard statements** No known significant effects or critical hazards.

**Precautionary statements**

**General** Not applicable.

**Prevention** Not applicable.

**Response** Not applicable.

**Storage** Not applicable.

**Disposal** Not applicable.

**Supplemental label elements** Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** Not applicable.

**Tactile warning of danger** Not applicable.

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** None known.

# SECTION 3: Composition/information on ingredients

**3.2 Mixtures** Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

# SECTION 4: First aid measures

## 4.1 Description of first aid measures

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

| | |
|---|---|
| **Ingestion** | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| **Protection of first-aiders** | No action shall be taken involving any personal risk or without suitable training. |

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

| | |
|---|---|
| **Eye contact** | No specific data. |
| **Inhalation** | No specific data. |
| **Skin contact** | No specific data. |
| **Ingestion** | No specific data. |

### 4.3 Indication of any immediate medical attention and special treatment needed

| | |
|---|---|
| **Notes to physician** | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| **Specific treatments** | No specific treatment. |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

| | |
|---|---|
| **Suitable extinguishing media** | Use an extinguishing agent suitable for the surrounding fire. |
| **Unsuitable extinguishing media** | None known. |

### 5.2 Special hazards arising from the substance or mixture

| | |
|---|---|
| **Hazards from the substance or mixture** | In a fire or if heated, a pressure increase will occur and the container may burst. |
| **Hazardous combustion products** | No specific data. |

### 5.3 Advice for firefighters

| | |
|---|---|
| **Special precautions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **For non-emergency personnel** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| **For emergency responders** | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | |
|---|---|
| **Small spill** | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |
| **6.4 Reference to other sections** | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

**Protective measures** Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene** Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

**Recommendations** Not available.

**Industrial sector specific solutions** Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

No exposure limit value known.

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures** Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

No DELs available.

**PNECs**

No PECs available.

### 8.2 Exposure controls

**Appropriate engineering controls** Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

**Hygiene measures** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**

**Hand protection** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

| | |
|---|---|
| **Environmental exposure controls** | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state** | Liquid. |
| **Colour** | Clear. Reddish |
| **Odour** | Not available. |
| **Odour threshold** | Not available. |
| **pH** | 6.9 to 7.3 |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not available. |
| **Flash point** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |
| **Solubility in water** | Not available. |
| **Partition coefficient: n-octanol/ water** | Not applicable. |
| **Vapour pressure** | Not available. |

| | Vapour Pressure at 20˚C | | | Vapour pressure at 50˚C | | |
|---|---|---|---|---|---|---|
| **Ingredient name** | **mm Hg** | **kPa** | **Method** | **mm Hg** | **kPa** | **Method** |
| water | 23.8 | 3.2 | | | | |

| | |
|---|---|
| **Evaporation rate** | Not available. |
| **Relative density** | Not available. |
| **Vapour density** | Not available. |
| **Explosive properties** | Not available. |
| **Oxidising properties** | Not available. |

**Particle characteristics**

| | |
|---|---|
| **Median particle size** | Not applicable. |

### 9.2 Other information

| | |
|---|---|
| **Burning time** | Not applicable. |
| **Burning rate** | Not applicable. |
| **Solubility in water** | Not available. |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | The product is stable. |
| **10.3 Possibility of hazardous reactions** | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | No specific data. |
| **10.5 Incompatible materials** | No specific data. |
| **10.6 Hazardous decomposition products** | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

# SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

**Acute toxicity**

**Conclusion/Summary** Not available.

**Acute toxicity estimates**

N/A

**Irritation/Corrosion**

**Conclusion/Summary** Not available.

**Sensitisation**

**Conclusion/Summary** Not available.

**Mutagenicity**

**Conclusion/Summary** Not available.

**Carcinogenicity**

**Conclusion/Summary** Not available.

**Reproductive toxicity**

**Conclusion/Summary** Not available.

**Teratogenicity**

**Conclusion/Summary** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Information on likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Eyes.

**Potential acute health effects**

**Inhalation** No known significant effects or critical hazards.

**Ingestion** No known significant effects or critical hazards.

**Skin contact** No known significant effects or critical hazards.

**Eye contact** No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Inhalation** No specific data.

**Ingestion** No specific data.

**Skin contact** No specific data.

**Eye contact** No specific data.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

**Long term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

**Potential chronic health effects**

Not available.

| | |
|---|---|
| **Conclusion/Summary** | Not available. |
| **General** | No known significant effects or critical hazards. |
| **Carcinogenicity** | No known significant effects or critical hazards. |
| **Mutagenicity** | No known significant effects or critical hazards. |
| **Teratogenicity** | No known significant effects or critical hazards. |
| **Developmental effects** | No known significant effects or critical hazards. |
| **Fertility effects** | No known significant effects or critical hazards. |
| **Other information** | Not available. |

## SECTION 12: Ecological information

**12.1 Toxicity**

**Conclusion/Summary** Not available.

**12.2 Persistence and degradability**

**Conclusion/Summary** Not available.

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$)** Not available.

**Mobility** Not available.

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Packaging**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not available. | Not available. | Not available. | Not available. |
| **14.2 UN proper shipping name** | Not available. | Not available. | Not available. | Not available. |
| | | | | |

| | | | | |
|---|---|---|---|---|
| **14.3 Transport hazard class(es)** | Not available. | Not available. | Not available. | Not available. |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | - | - | - |

**14.6 Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

No listed substance

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations**

| | |
|---|---|
| **Industrial emissions (integrated pollution prevention and control) - Air** | Not listed |
| **Industrial emissions (integrated pollution prevention and control) - Water** | Not listed |

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

| | |
|---|---|
| **United States** | Not determined. |
| **Canada inventory** | Not determined. |
| **China** | At least one component is not listed. |
| **Japan** | **Japan inventory (CSCL)**: Not determined.<br>**Japan inventory (ISHL)**: Not determined. |
| **15.2 Chemical safety assessment** | This product contains substances for which Chemical Safety Assessments are still required. |

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Not classified. | |

| | |
|---|---|
| **Full text of abbreviated H statements** | Not applicable. |
| **Full text of classifications** | Not applicable. |
| **Date of printing** | 26 June 2023 |
| **Date of issue/ Date of revision** | 26 June 2023 |
| **Date of previous issue** | 29 September 2018 |
| **Version** | 2.01 |

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# SAFETY DATA SHEET

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** **DMEM/High Modified, with 4500 mg/L Glucose, with 110 mg/L Sodium Pyruvate, without L-Glutamine**

**Catalogue Number** SH30285

90SH30285

**Product description** Not available.

**Product type** Liquid.

**Other means of identification** Not available.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

For Further Manufacturing or Research Use. Not for Diagnostic or Therapeutic Use.

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Cytiva Austria
Kremplstr. 5
4061 Pasching
AUSTRIA
Phone: +43 7229 64865

HyClone Laboratories
925 West 1800 South
Logan, Utah 84321
Phone; (435) 792-8000

Cytiva Singapore
1 Maritime Square #13-01
Harbourfront Centre
Singapore 099253

**Hours of operation**
Mo. - Fr.
08.30 - 17.00

**Person who prepared the SDS:** sds_author@cytiva.com

### 1.4 Emergency telephone number

**United Kingdom (UK)**

Cytiva Austria
Kremplstr. 5
4061 Pasching
AUSTRIA
Phone: +43 7229 64865

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Calll Collect).

**National advisory body/Poison Centre**

**United Kingdom (UK)**

National Poison Information Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER
Tel.: +44 (171)635 91 91

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

**Product definition** Mixture

**Classification according to UK CLP/GHS**

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms**

**Signal word** No signal word.

**Hazard statements** No known significant effects or critical hazards.

**Precautionary statements**

**General** Not applicable.

**Prevention** Not applicable.

**Response** Not applicable.

**Storage** Not applicable.

**Disposal** Not applicable.

**Supplemental label elements** Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** Not applicable.

**Tactile warning of danger** Not applicable.

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** None known.

# SECTION 3: Composition/information on ingredients

**3.2 Mixtures** Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

# SECTION 4: First aid measures

## 4.1 Description of first aid measures

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

| | |
|---|---|
| **Ingestion** | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| **Protection of first-aiders** | No action shall be taken involving any personal risk or without suitable training. |

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

| | |
|---|---|
| **Eye contact** | No specific data. |
| **Inhalation** | No specific data. |
| **Skin contact** | No specific data. |
| **Ingestion** | No specific data. |

### 4.3 Indication of any immediate medical attention and special treatment needed

| | |
|---|---|
| **Notes to physician** | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| **Specific treatments** | No specific treatment. |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

| | |
|---|---|
| **Suitable extinguishing media** | Use an extinguishing agent suitable for the surrounding fire. |
| **Unsuitable extinguishing media** | None known. |

### 5.2 Special hazards arising from the substance or mixture

| | |
|---|---|
| **Hazards from the substance or mixture** | In a fire or if heated, a pressure increase will occur and the container may burst. |
| **Hazardous combustion products** | No specific data. |

### 5.3 Advice for firefighters

| | |
|---|---|
| **Special precautions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **For non-emergency personnel** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| **For emergency responders** | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | |
|---|---|
| **Small spill** | Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. |
| **6.4 Reference to other sections** | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

| | |
|---|---|
| **Protective measures** | Put on appropriate personal protective equipment (see Section 8). |
| **Advice on general occupational hygiene** | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

### 7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

| | |
|---|---|
| **Recommendations** | Not available. |
| **Industrial sector specific solutions** | Not available. |

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

No exposure limit value known.

**Biological exposure indices**

No exposure indices known.

| | |
|---|---|
| **Recommended monitoring procedures** | Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required. |

**DNELs/DMELs**

Not available.

**PNECs**

Not available.

### 8.2 Exposure controls

| | |
|---|---|
| **Appropriate engineering controls** | Good general ventilation should be sufficient to control worker exposure to airborne contaminants. |

**Individual protection measures**

| | |
|---|---|
| **Hygiene measures** | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| **Eye/face protection** | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. |

**Skin protection**

| | |
|---|---|
| **Hand protection** | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. |
| **Body protection** | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |

| | |
|---|---|
| **Other skin protection** | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| **Respiratory protection** | Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. |
| **Environmental exposure controls** | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| **Appearance** | |
| **Physical state** | Liquid. |
| **Colour** | Clear. Light Red. |
| **Odour** | Not available. |
| **Odour threshold** | Not available. |
| **pH** | 7 to 7.4 |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not available. |
| **Flash point** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Dynamic (room temperature): Not available.<br>Kinematic (room temperature): Not available.<br>Kinematic (40°C): Not available. |
| **Solubility in water** | Not available. |
| **Partition coefficient: n-octanol/ water** | Not applicable. |
| **Vapour pressure** | Not available. |

| | Vapour Pressure at 20˚C | | | Vapour pressure at 50˚C | | |
|---|---|---|---|---|---|---|
| **Ingredient name** | **mm Hg** | **kPa** | **Method** | **mm Hg** | **kPa** | **Method** |
| water | 17.5 | 2.3 | | | | |

| | |
|---|---|
| **Evaporation rate** | Not available. |
| **Relative density** | Not available. |
| **Vapour density** | Not available. |
| **Explosive properties** | Not available. |
| **Oxidising properties** | Not available. |
| **Particle characteristics** | |
| **Median particle size** | Not applicable. |

### 9.2 Other information

| | |
|---|---|
| **Burning time** | Not applicable. |
| **Burning rate** | Not applicable. |
| **Solubility in water** | Not available. |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | The product is stable. |
| **10.3 Possibility of hazardous reactions** | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | No specific data. |
| **10.5 Incompatible materials** | No specific data. |
| **10.6 Hazardous decomposition products** | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Acute toxicity estimates**

N/A

**Skin corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Not available.

**Serious eye damage/eye irritation**

Not available.

**Conclusion/Summary [Product]** Not available.

**Respiratory corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Not available.

**Respiratory or skin sensitization**

Not available.

**Skin**

**Conclusion/Summary [Product]** Not available.

**Respiratory**

**Conclusion/Summary [Product]** Not available.

**Germ cell mutagenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Carcinogenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Reproductive toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Information on likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Eyes.

**Potential acute health effects**

**Inhalation** No known significant effects or critical hazards.

**Ingestion** No known significant effects or critical hazards.

**Skin contact** No known significant effects or critical hazards.

**Eye contact** No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Inhalation** No specific data.

**Ingestion** No specific data.

**Skin contact** No specific data.

**Eye contact** No specific data.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

**Long term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

**Potential chronic health effects**

Not available.

**Conclusion/Summary [Product]** Not available.

**General** No known significant effects or critical hazards.

**Carcinogenicity** No known significant effects or critical hazards.

**Mutagenicity** No known significant effects or critical hazards.

**Reproductive toxicity** No known significant effects or critical hazards.

**Other information** Not available.

## SECTION 12: Ecological information

**12.1 Toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**12.2 Persistence and degradability**

Not available.

**Conclusion/Summary [Product]** Not available.

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

**Soil/water partition coefficient** Not available.

**Mobility** Not available.

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Packaging**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | | | | |
| **14.3 Transport hazard class(es)** | | | | |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| | | | | |

| | | | | |
|---|---|---|---|---|
| **Additional information** | - | - | - | - |

**14.6 Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

No listed substance

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations**

| | |
|---|---|
| **Industrial emissions (integrated pollution prevention and control) - Air** | Not listed |
| **Industrial emissions (integrated pollution prevention and control) - Water** | Not listed |

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

| | |
|---|---|
| **United States** | Not determined. |
| **Canada inventory** | Not determined. |
| **China** | Not determined. |

| | |
|---|---|
| **Japan** | **Japan inventory (CSCL)**: Not determined.<br>**Japan inventory (ISHL)**: Not determined. |
| **15.2 Chemical safety assessment** | This product contains substances for which Chemical Safety Assessments are still required. |

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
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EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Not classified. | |

| | |
|---|---|
| **Full text of abbreviated H statements** | Not applicable. |
| **Full text of classifications** | Not applicable. |
| **Date of printing** | 15 July 2026 |
| **Date of issue/ Date of revision** | 15 July 2026 |
| **Date of previous issue** | 17 February 2025 |
| **Version** | 1.01 |

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# SAFETY DATA SHEET

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** **DMEM/F-12 Modified, with 2.50 mM L-Glutamine, 15 mM HEPES, 110 mg/L Sodium Pyruvate, 500 mL**

**Catalogue Number** SH30261.01

90SH30261.01

**Product description** Not available.

**Product type** Liquid.

**Other means of identification** Not available.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

For Further Manufacturing or Research Use. Not for Diagnostic or Therapeutic Use.

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Cytiva Austria
Kremplstr. 5
4061 Pasching
AUSTRIA
Phone: +43 7229 64865

HyClone Laboratories
925 West 1800 South
Logan, Utah 84321
Phone; (435) 792-8000

Cytiva Singapore
1 Maritime Square #13-01
Harbourfront Centre
Singapore 099253

**Hours of operation**
Mo. - Fr.
08.30 - 17.00

**Person who prepared the SDS:** sds_author@cytiva.com

### 1.4 Emergency telephone number

**United Kingdom (UK)**

Cytiva Austria
Kremplstr. 5
4061 Pasching
AUSTRIA
Phone: +43 7229 64865

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Calll Collect).

**National advisory body/Poison Centre**

**United Kingdom (UK)**

National Poison Information Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER
Tel.: +44 (171)635 91 91

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

**Product definition** Mixture

**Classification according to UK CLP/GHS**

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms**

**Signal word** No signal word.

**Hazard statements** No known significant effects or critical hazards.

**Precautionary statements**

**General** Not applicable.

**Prevention** Not applicable.

**Response** Not applicable.

**Storage** Not applicable.

**Disposal** Not applicable.

**Supplemental label elements** Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** Not applicable.

**Tactile warning of danger** Not applicable.

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** None known.

# SECTION 3: Composition/information on ingredients

**3.2 Mixtures** Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

# SECTION 4: First aid measures

## 4.1 Description of first aid measures

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

| | |
|---|---|
| **Ingestion** | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| **Protection of first-aiders** | No action shall be taken involving any personal risk or without suitable training. |

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

| | |
|---|---|
| **Eye contact** | No specific data. |
| **Inhalation** | No specific data. |
| **Skin contact** | No specific data. |
| **Ingestion** | No specific data. |

### 4.3 Indication of any immediate medical attention and special treatment needed

| | |
|---|---|
| **Notes to physician** | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| **Specific treatments** | No specific treatment. |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

| | |
|---|---|
| **Suitable extinguishing media** | Use an extinguishing agent suitable for the surrounding fire. |
| **Unsuitable extinguishing media** | None known. |

### 5.2 Special hazards arising from the substance or mixture

| | |
|---|---|
| **Hazards from the substance or mixture** | In a fire or if heated, a pressure increase will occur and the container may burst. |
| **Hazardous combustion products** | No specific data. |

### 5.3 Advice for firefighters

| | |
|---|---|
| **Special precautions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **For non-emergency personnel** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| **For emergency responders** | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | |
|---|---|
| **Small spill** | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |
| **6.4 Reference to other sections** | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

| | |
|---|---|
| **Protective measures** | Put on appropriate personal protective equipment (see Section 8). |
| **Advice on general occupational hygiene** | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

### 7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

| | |
|---|---|
| **Recommendations** | Not available. |
| **Industrial sector specific solutions** | Not available. |

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

No exposure limit value known.

**Biological exposure indices**

No exposure indices known.

| | |
|---|---|
| **Recommended monitoring procedures** | Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. |

**DNELs/DMELs**

No DELs available.

**PNECs**

No PECs available.

### 8.2 Exposure controls

| | |
|---|---|
| **Appropriate engineering controls** | Good general ventilation should be sufficient to control worker exposure to airborne contaminants. |

**Individual protection measures**

| | |
|---|---|
| **Hygiene measures** | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| **Eye/face protection** | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. |

**Skin protection**

| | |
|---|---|
| **Hand protection** | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. |
| **Body protection** | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| **Other skin protection** | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| **Respiratory protection** | Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. |

| | |
|---|---|
| **Environmental exposure controls** | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state** | Liquid. |
| **Colour** | Clear. Reddish |
| **Odour** | Not available. |
| **Odour threshold** | Not available. |
| **pH** | 6.9 to 7.3 |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not available. |
| **Flash point** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |
| **Solubility in water** | Not available. |
| **Partition coefficient: n-octanol/ water** | Not applicable. |
| **Vapour pressure** | Not available. |

| | Vapour Pressure at 20˚C | | | Vapour pressure at 50˚C | | |
|---|---|---|---|---|---|---|
| **Ingredient name** | **mm Hg** | **kPa** | **Method** | **mm Hg** | **kPa** | **Method** |
| water | 23.8 | 3.2 | | | | |

| | |
|---|---|
| **Evaporation rate** | Not available. |
| **Relative density** | Not available. |
| **Vapour density** | Not available. |
| **Explosive properties** | Not available. |
| **Oxidising properties** | Not available. |

**Particle characteristics**

| | |
|---|---|
| **Median particle size** | Not applicable. |

### 9.2 Other information

| | |
|---|---|
| **Burning time** | Not applicable. |
| **Burning rate** | Not applicable. |
| **Solubility in water** | Not available. |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | The product is stable. |
| **10.3 Possibility of hazardous reactions** | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | No specific data. |
| **10.5 Incompatible materials** | No specific data. |

**10.6 Hazardous decomposition products** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

**Conclusion/Summary** Not available.

**Acute toxicity estimates**

N/A

**Irritation/Corrosion**

**Conclusion/Summary** Not available.

**Sensitisation**

**Conclusion/Summary** Not available.

**Mutagenicity**

**Conclusion/Summary** Not available.

**Carcinogenicity**

**Conclusion/Summary** Not available.

**Reproductive toxicity**

**Conclusion/Summary** Not available.

**Teratogenicity**

**Conclusion/Summary** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Information on likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Eyes.

**Potential acute health effects**

**Inhalation** No known significant effects or critical hazards.

**Ingestion** No known significant effects or critical hazards.

**Skin contact** No known significant effects or critical hazards.

**Eye contact** No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Inhalation** No specific data.

**Ingestion** No specific data.

**Skin contact** No specific data.

**Eye contact** No specific data.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

**Long term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

**Potential chronic health effects**

Not available.

| | |
|---|---|
| **Conclusion/Summary** | Not available. |
| **General** | No known significant effects or critical hazards. |
| **Carcinogenicity** | No known significant effects or critical hazards. |
| **Mutagenicity** | No known significant effects or critical hazards. |
| **Teratogenicity** | No known significant effects or critical hazards. |
| **Developmental effects** | No known significant effects or critical hazards. |
| **Fertility effects** | No known significant effects or critical hazards. |
| **Other information** | Not available. |

## SECTION 12: Ecological information

**12.1 Toxicity**

| | |
|---|---|
| **Conclusion/Summary** | Not available. |

**12.2 Persistence and degradability**

| | |
|---|---|
| **Conclusion/Summary** | Not available. |

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$)** Not available.

| | |
|---|---|
| **Mobility** | Not available. |

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**Product**

| | |
|---|---|
| **Methods of disposal** | The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. |
| **Hazardous waste** | Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC. |

**Packaging**

| | |
|---|---|
| **Methods of disposal** | The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. |
| **Special precautions** | This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. |

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not available. | Not available. | Not available. | Not available. |
| **14.2 UN proper shipping name** | Not available. | Not available. | Not available. | Not available. |
| **14.3 Transport hazard class(es)** | Not available. | Not available. | Not available. | Not available. |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | - | - | - |

**14.6 Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

No listed substance

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations**

| | |
|---|---|
| **Industrial emissions (integrated pollution prevention and control) - Air** | Not listed |
| **Industrial emissions (integrated pollution prevention and control) - Water** | Not listed |

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

| | |
|---|---|
| **United States** | Not determined. |
| **Canada inventory** | Not determined. |
| **China** | At least one component is not listed. |
| **Japan** | **Japan inventory (CSCL)**: Not determined.<br>**Japan inventory (ISHL)**: Not determined. |
| **15.2 Chemical safety assessment** | This product contains substances for which Chemical Safety Assessments are still required. |

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Not classified. | |

| | |
|---|---|
| **Full text of abbreviated H statements** | Not applicable. |
| **Full text of classifications** | Not applicable. |
| **Date of printing** | 26 June 2023 |
| **Date of issue/ Date of revision** | 26 June 2023 |
| **Date of previous issue** | No previous validation |
| **Version** | 1 |

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# SAFETY DATA SHEET

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** **DMEM/High Modified, with 4500 mg/L Glucose, with 110 mg/L Sodium Pyruvate, without L-Glutamine, 500 mL**

**Catalogue Number** SH30285.01

90SH30285.01

**Product description** Not available.

**Product type** Liquid.

**Other means of identification** Not available.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

For Further Manufacturing or Research Use. Not for Diagnostic or Therapeutic Use.

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Cytiva Austria
Kremplstr. 5
4061 Pasching
AUSTRIA
Phone: +43 7229 64865

HyClone Laboratories
925 West 1800 South
Logan, Utah 84321
Phone; (435) 792-8000

Cytiva Singapore
1 Maritime Square #13-01
Harbourfront Centre
Singapore 099253

**Hours of operation**
Mo. - Fr.
08.30 - 17.00

**Person who prepared the SDS:** sds_author@cytiva.com

### 1.4 Emergency telephone number

**United Kingdom (UK)**

Cytiva Austria
Kremplstr. 5
4061 Pasching
AUSTRIA
Phone: +43 7229 64865

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Calll Collect).

**National advisory body/Poison Centre**

**United Kingdom (UK)**

National Poison Information Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER
Tel.: +44 (171)635 91 91

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

**Product definition** Mixture

**Classification according to UK CLP/GHS**

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms**

**Signal word** No signal word.

**Hazard statements** No known significant effects or critical hazards.

**Precautionary statements**

**General** Not applicable.

**Prevention** Not applicable.

**Response** Not applicable.

**Storage** Not applicable.

**Disposal** Not applicable.

**Supplemental label elements** Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** Not applicable.

**Tactile warning of danger** Not applicable.

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** None known.

# SECTION 3: Composition/information on ingredients

**3.2 Mixtures** Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

# SECTION 4: First aid measures

## 4.1 Description of first aid measures

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

| | |
|---|---|
| **Ingestion** | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| **Protection of first-aiders** | No action shall be taken involving any personal risk or without suitable training. |

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

| | |
|---|---|
| **Eye contact** | No specific data. |
| **Inhalation** | No specific data. |
| **Skin contact** | No specific data. |
| **Ingestion** | No specific data. |

### 4.3 Indication of any immediate medical attention and special treatment needed

| | |
|---|---|
| **Notes to physician** | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| **Specific treatments** | No specific treatment. |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

| | |
|---|---|
| **Suitable extinguishing media** | Use an extinguishing agent suitable for the surrounding fire. |
| **Unsuitable extinguishing media** | None known. |

### 5.2 Special hazards arising from the substance or mixture

| | |
|---|---|
| **Hazards from the substance or mixture** | In a fire or if heated, a pressure increase will occur and the container may burst. |
| **Hazardous combustion products** | No specific data. |

### 5.3 Advice for firefighters

| | |
|---|---|
| **Special precautions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **For non-emergency personnel** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| **For emergency responders** | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | |
|---|---|
| **Small spill** | Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. |
| **6.4 Reference to other sections** | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

| | |
|---|---|
| **Protective measures** | Put on appropriate personal protective equipment (see Section 8). |
| **Advice on general occupational hygiene** | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

### 7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

| | |
|---|---|
| **Recommendations** | Not available. |
| **Industrial sector specific solutions** | Not available. |

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

No exposure limit value known.

**Biological exposure indices**

No exposure indices known.

| | |
|---|---|
| **Recommended monitoring procedures** | Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required. |

**DNELs/DMELs**

Not available.

**PNECs**

Not available.

### 8.2 Exposure controls

| | |
|---|---|
| **Appropriate engineering controls** | Good general ventilation should be sufficient to control worker exposure to airborne contaminants. |

**Individual protection measures**

| | |
|---|---|
| **Hygiene measures** | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| **Eye/face protection** | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. |

**Skin protection**

| | |
|---|---|
| **Hand protection** | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. |
| **Body protection** | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |

| | |
|---|---|
| **Other skin protection** | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| **Respiratory protection** | Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. |
| **Environmental exposure controls** | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state** | Liquid. |
| **Colour** | Clear. Light Red. |
| **Odour** | Not available. |
| **Odour threshold** | Not available. |
| **pH** | 7 to 7.4 |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not available. |
| **Flash point** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Dynamic (room temperature): Not available.<br>Kinematic (room temperature): Not available.<br>Kinematic (40°C): Not available. |
| **Solubility in water** | Not available. |
| **Partition coefficient: n-octanol/ water** | Not applicable. |
| **Vapour pressure** | Not available. |

| | Vapour Pressure at 20˚C | | | Vapour pressure at 50˚C | | |
|---|---|---|---|---|---|---|
| **Ingredient name** | **mm Hg** | **kPa** | **Method** | **mm Hg** | **kPa** | **Method** |
| water | 17.5 | 2.3 | | | | |

| | |
|---|---|
| **Evaporation rate** | Not available. |
| **Relative density** | Not available. |
| **Vapour density** | Not available. |
| **Explosive properties** | Not available. |
| **Oxidising properties** | Not available. |

**Particle characteristics**

| | |
|---|---|
| **Median particle size** | Not applicable. |

### 9.2 Other information

| | |
|---|---|
| **Burning time** | Not applicable. |
| **Burning rate** | Not applicable. |
| **Solubility in water** | Not available. |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | The product is stable. |
| **10.3 Possibility of hazardous reactions** | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | No specific data. |
| **10.5 Incompatible materials** | No specific data. |
| **10.6 Hazardous decomposition products** | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Acute toxicity estimates**

N/A

**Skin corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Not available.

**Serious eye damage/eye irritation**

Not available.

**Conclusion/Summary [Product]** Not available.

**Respiratory corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** Not available.

**Respiratory or skin sensitization**

Not available.

**Skin**

**Conclusion/Summary [Product]** Not available.

**Respiratory**

**Conclusion/Summary [Product]** Not available.

**Germ cell mutagenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Carcinogenicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Reproductive toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Information on likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Eyes.

**Potential acute health effects**

**Inhalation** No known significant effects or critical hazards.

**Ingestion** No known significant effects or critical hazards.

**Skin contact** No known significant effects or critical hazards.

**Eye contact** No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Inhalation** No specific data.

**Ingestion** No specific data.

**Skin contact** No specific data.

**Eye contact** No specific data.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

**Long term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

**Potential chronic health effects**

Not available.

**Conclusion/Summary [Product]** Not available.

**General** No known significant effects or critical hazards.

**Carcinogenicity** No known significant effects or critical hazards.

**Mutagenicity** No known significant effects or critical hazards.

**Reproductive toxicity** No known significant effects or critical hazards.

**Other information** Not available.

## SECTION 12: Ecological information

**12.1 Toxicity**

Not available.

**Conclusion/Summary [Product]** Not available.

**12.2 Persistence and degradability**

Not available.

**Conclusion/Summary [Product]** Not available.

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

**Soil/water partition coefficient** Not available.

**Mobility** Not available.

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Packaging**

**Methods of disposal** The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | | | | |
| **14.3 Transport hazard class(es)** | | | | |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| | | | | |

| | | | | |
|---|---|---|---|---|
| **Additional information** | - | - | - | - |

**14.6 Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

No listed substance

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations**

| | |
|---|---|
| **Industrial emissions (integrated pollution prevention and control) - Air** | Not listed |
| **Industrial emissions (integrated pollution prevention and control) - Water** | Not listed |

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

| | |
|---|---|
| **United States** | Not determined. |
| **Canada inventory** | Not determined. |
| **China** | Not determined. |

| | |
|---|---|
| **Japan** | **Japan inventory (CSCL)**: Not determined.<br>**Japan inventory (ISHL)**: Not determined. |
| **15.2 Chemical safety assessment** | This product contains substances for which Chemical Safety Assessments are still required. |

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Not classified. | |

| | |
|---|---|
| **Full text of abbreviated H statements** | Not applicable. |
| **Full text of classifications** | Not applicable. |
| **Date of printing** | 15 July 2026 |
| **Date of issue/ Date of revision** | 15 July 2026 |
| **Date of previous issue** | 17 February 2025 |
| **Version** | 1.01 |

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

# SAFETY DATA SHEET

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** **DMEM/F-12 Modified, with 2.50 mM L-Glutamine, 15 mM HEPES, 110 mg/L Sodium Pyruvate, 1000 mL**

**Catalogue Number** SH30261.02




**Product description** Not available.

**Product type** Liquid.

**Other means of identification** Not available.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

For Further Manufacturing or Research Use. Not for Diagnostic or Therapeutic Use.

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

Cytiva Austria
Kremplstr. 5
4061 Pasching
AUSTRIA
Phone: +43 7229 64865

HyClone Laboratories
925 West 1800 South
Logan, Utah 84321
Phone; (435) 792-8000

Cytiva Singapore
1 Maritime Square #13-01
Harbourfront Centre
Singapore 099253

**Hours of operation**
Mo. - Fr.
08.30 - 17.00

**Person who prepared the SDS:** sds_author@cytiva.com

### 1.4 Emergency telephone number

**United Kingdom (UK)**

Cytiva Austria
Kremplstr. 5
4061 Pasching
AUSTRIA
Phone: +43 7229 64865

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Calll Collect).

**National advisory body/Poison Centre**

**United Kingdom (UK)**

National Poison Information Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER
Tel.: +44 (171)635 91 91

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

**Product definition** Mixture

**Classification according to UK CLP/GHS**

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms**

**Signal word** No signal word.

**Hazard statements** No known significant effects or critical hazards.

**Precautionary statements**

**General** Not applicable.

**Prevention** Not applicable.

**Response** Not applicable.

**Storage** Not applicable.

**Disposal** Not applicable.

**Supplemental label elements** Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** Not applicable.

**Tactile warning of danger** Not applicable.

## 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** None known.

# SECTION 3: Composition/information on ingredients

**3.2 Mixtures** Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

# SECTION 4: First aid measures

## 4.1 Description of first aid measures

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

| | |
|---|---|
| **Ingestion** | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| **Protection of first-aiders** | No action shall be taken involving any personal risk or without suitable training. |

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

| | |
|---|---|
| **Eye contact** | No specific data. |
| **Inhalation** | No specific data. |
| **Skin contact** | No specific data. |
| **Ingestion** | No specific data. |

### 4.3 Indication of any immediate medical attention and special treatment needed

| | |
|---|---|
| **Notes to physician** | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| **Specific treatments** | No specific treatment. |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

| | |
|---|---|
| **Suitable extinguishing media** | Use an extinguishing agent suitable for the surrounding fire. |
| **Unsuitable extinguishing media** | None known. |

### 5.2 Special hazards arising from the substance or mixture

| | |
|---|---|
| **Hazards from the substance or mixture** | In a fire or if heated, a pressure increase will occur and the container may burst. |
| **Hazardous combustion products** | No specific data. |

### 5.3 Advice for firefighters

| | |
|---|---|
| **Special precautions for fire-fighters** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **For non-emergency personnel** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| **For emergency responders** | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | |
|---|---|
| **Small spill** | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| **Large spill** | Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |
| **6.4 Reference to other sections** | See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information. |

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

| | |
|---|---|
| **Protective measures** | Put on appropriate personal protective equipment (see Section 8). |
| **Advice on general occupational hygiene** | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

### 7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

| | |
|---|---|
| **Recommendations** | Not available. |
| **Industrial sector specific solutions** | Not available. |

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

No exposure limit value known.

**Biological exposure indices**

No exposure indices known.

| | |
|---|---|
| **Recommended monitoring procedures** | Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. |

**DNELs/DMELs**

No DELs available.

**PNECs**

No PECs available.

### 8.2 Exposure controls

| | |
|---|---|
| **Appropriate engineering controls** | Good general ventilation should be sufficient to control worker exposure to airborne contaminants. |

**Individual protection measures**

| | |
|---|---|
| **Hygiene measures** | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| **Eye/face protection** | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. |

**Skin protection**

| | |
|---|---|
| **Hand protection** | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. |
| **Body protection** | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| **Other skin protection** | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| **Respiratory protection** | Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. |

| | |
|---|---|
| **Environmental exposure controls** | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state** | Liquid. |
| **Colour** | Clear. Reddish |
| **Odour** | Not available. |
| **Odour threshold** | Not available. |
| **pH** | 6.9 to 7.3 |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not available. |
| **Flash point** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |
| **Solubility in water** | Not available. |
| **Partition coefficient: n-octanol/ water** | Not applicable. |
| **Vapour pressure** | Not available. |

| | Vapour Pressure at 20˚C | | | Vapour pressure at 50˚C | | |
|---|---|---|---|---|---|---|
| **Ingredient name** | **mm Hg** | **kPa** | **Method** | **mm Hg** | **kPa** | **Method** |
| water | 23.8 | 3.2 | | | | |

| | |
|---|---|
| **Evaporation rate** | Not available. |
| **Relative density** | Not available. |
| **Vapour density** | Not available. |
| **Explosive properties** | Not available. |
| **Oxidising properties** | Not available. |

**Particle characteristics**

| | |
|---|---|
| **Median particle size** | Not applicable. |

### 9.2 Other information

| | |
|---|---|
| **Burning time** | Not applicable. |
| **Burning rate** | Not applicable. |
| **Solubility in water** | Not available. |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | The product is stable. |
| **10.3 Possibility of hazardous reactions** | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | No specific data. |
| **10.5 Incompatible materials** | No specific data. |

**10.6 Hazardous decomposition products** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

**Conclusion/Summary** Not available.

**Acute toxicity estimates**

N/A

**Irritation/Corrosion**

**Conclusion/Summary** Not available.

**Sensitisation**

**Conclusion/Summary** Not available.

**Mutagenicity**

**Conclusion/Summary** Not available.

**Carcinogenicity**

**Conclusion/Summary** Not available.

**Reproductive toxicity**

**Conclusion/Summary** Not available.

**Teratogenicity**

**Conclusion/Summary** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Information on likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Eyes.

**Potential acute health effects**

**Inhalation** No known significant effects or critical hazards.

**Ingestion** No known significant effects or critical hazards.

**Skin contact** No known significant effects or critical hazards.

**Eye contact** No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Inhalation** No specific data.

**Ingestion** No specific data.

**Skin contact** No specific data.

**Eye contact** No specific data.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

**Long term exposure**

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

**Potential chronic health effects**

Not available.

| | |
|---|---|
| **Conclusion/Summary** | Not available. |
| **General** | No known significant effects or critical hazards. |
| **Carcinogenicity** | No known significant effects or critical hazards. |
| **Mutagenicity** | No known significant effects or critical hazards. |
| **Teratogenicity** | No known significant effects or critical hazards. |
| **Developmental effects** | No known significant effects or critical hazards. |
| **Fertility effects** | No known significant effects or critical hazards. |
| **Other information** | Not available. |

## SECTION 12: Ecological information

**12.1 Toxicity**

| | |
|---|---|
| **Conclusion/Summary** | Not available. |

**12.2 Persistence and degradability**

| | |
|---|---|
| **Conclusion/Summary** | Not available. |

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$)** Not available.

| | |
|---|---|
| **Mobility** | Not available. |

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**Product**

| | |
|---|---|
| **Methods of disposal** | The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. |
| **Hazardous waste** | Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC. |

**Packaging**

| | |
|---|---|
| **Methods of disposal** | The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. |
| **Special precautions** | This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. |

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not available. | Not available. | Not available. | Not available. |
| **14.2 UN proper shipping name** | Not available. | Not available. | Not available. | Not available. |
| **14.3 Transport hazard class(es)** | Not available. | Not available. | Not available. | Not available. |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | - | - | - |

**14.6 Special precautions for user** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

No listed substance

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations**

| | |
|---|---|
| **Industrial emissions (integrated pollution prevention and control) - Air** | Not listed |
| **Industrial emissions (integrated pollution prevention and control) - Water** | Not listed |

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

| | |
|---|---|
| **United States** | Not determined. |
| **Canada inventory** | Not determined. |
| **China** | At least one component is not listed. |
| **Japan** | **Japan inventory (CSCL)**: Not determined.<br>**Japan inventory (ISHL)**: Not determined. |
| **15.2 Chemical safety assessment** | This product contains substances for which Chemical Safety Assessments are still required. |

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Not classified. | |

| | |
|---|---|
| **Full text of abbreviated H statements** | Not applicable. |
| **Full text of classifications** | Not applicable. |
| **Date of printing** | 26 June 2023 |
| **Date of issue/ Date of revision** | 26 June 2023 |
| **Date of previous issue** | No previous validation |
| **Version** | 1 |

**Notice to reader**

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.