# SAFETY DATA SHEET

**according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878**

**Issue Date** 11-27-2006 **Revision Date** 23-Mar-2026 **Print Date** 23-Mar-2026 **Version** 4.3

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Code(s)** 193332

**Product Name** Ammonium Molybdate Reagent for Silica

**Unique Formula Identifier (UFI)** QKHW-0F9Q-S00T-0R45

**Molecular weight** Not applicable

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

**Recommended Use** Laboratory Reagent. Silica determination.

**Uses advised against** Consumer use

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

**Supplier**
HACH LANGE GmbH
Willstätterstr. 11
D-40549 Düsseldorf
Tel: +49 (0)211 5288-383
sds@hach.com

Responsible country contact:

HACH UK
Laser House
Ground Floor, Suite B
Waterfront Quay, Salford Quays
GB - Manchester, M50 3XW
Tel. +44 (0) 161 872 1487
info-uk@hach.com

HACH Ireland
Unit 34 GB Business Park
Little Island
IRL-Co. Cork
T45 H681
Tel. +353 (0)146 02 522
info-ie@hach.com

### 1.4. Emergency telephone number

UK: Chemtrec: +44 20 3807 3798
IE: National Poisons Information Centre (NPIC) 01 809 2566 (24/7)

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

***Classification according to Regulation (EC) No. 1272/2008 [CLP]***

| | |
|---|---|
| **Corrosive to metals** | Category 1 - (H290) |
| **Skin corrosion/irritation** | Category 1 - (H314) |
| **Serious eye damage/eye irritation** | Category 1 - (H318) |

### 2.2. Label elements

***Classification according to Regulation (EC) No. 1272/2008 [CLP]***

Contains Molybdate (Mo7O246-), hexaammonium, Sulfuric acid 11%



**Signal word**
Danger

**Hazard statements**
H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage

**Precautionary statements**
P234 - Keep only in original container
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P280 - Wear protective gloves/protective clothing and eye/face protection
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor
P363 - Wash contaminated clothing before reuse
P390 - Absorb spillage to prevent material damage

### 2.3. Other hazards

No information available.

PBT & vPvB
This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT)
This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

Endocrine Disruptor Information
This product does not contain any known or suspected endocrine disruptors.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Not applicable

**3.2 Mixtures**

| Chemical name | CAS No.<br>EC No.<br>Index No. | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|---|---|---|---|---|---|---|
| Sulfuric acid | 7664-93-9<br>231-639-5<br>016-020-00-8 | <10% | Met. Corr. 1 - H290<br>Skin Corr. 1A - H314 | Eye Irrit. 2 :H319: 5%<=C<15%<br>Skin Corr. 1A :H314: C>=15%<br>Skin Irrit. 2 :H315: 5%<=C<15% | - | - |
| Molybdate (Mo7O246-), hexaammonium | 12027-67-7<br>234-722-4<br>- | 3 - 7% | Acute Tox. 4 - H302<br>Eye Irrit. 2 - H319 | | - | - |
| Diammonium sulfate | 7783-20-2<br>231-984-1<br>- | <1% | Not classified | | - | - |

| Chemical name | REACH registration number |
|---|---|
| Sulfuric acid | 01-2119458838-20-xxxx |

**Full text of H- and EUH-phrases: see section 16**

***Acute Toxicity Estimate***

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 - 4 hour - dust/mist - mg/L | Inhalation LC50 - 4 hour - vapour - mg/L | Inhalation LC50 - 4 hour - gas - ppm |
|---|---|---|---|---|---|
| Molybdate (Mo7O246-), hexaammonium 12027-67-7 | 333 mg/kg | None reported | None reported | None reported | None reported |
| Diammonium sulfate 7783-20-2 | 2840 mg/kg | None reported | None reported | None reported | None reported |

## Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures**

**General advice** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Inhalation** Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical attention.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.

| | |
|---|---|
| **Skin contact** | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention. |
| **Ingestion** | Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical attention. |
| **Self-protection of the first aider** | Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. |

**4.2. Most important symptoms and effects, both acute and delayed**

| | |
|---|---|
| **Symptoms** | Burning sensation. |

**4.3. Indication of any immediate medical attention and special treatment needed**

| | |
|---|---|
| **Note to doctors** | Treat symptomatically. |

## Section 5: FIREFIGHTING MEASURES

**5.1. Extinguishing media**

| | |
|---|---|
| **Suitable Extinguishing Media** | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| **Unsuitable extinguishing media** | No information available. |

**5.2. Special hazards arising from the substance or mixture**

| | |
|---|---|
| **Specific hazards arising from the chemical** | The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. |
| **Hazardous combustion products** | This material will not burn. |

**5.3. Advice for firefighters**

| | |
|---|---|
| **Special protective equipment and precautions for fire-fighters** | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment. |
| **Additional information** | Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |

## Section 6: ACCIDENTAL RELEASE MEASURES

**6.1. Personal precautions, protective equipment and emergency procedures**

| | |
|---|---|
| **Personal precautions** | Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Attention! Corrosive material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| **For emergency responders** | Use personal protection recommended in Section 8. |

**6.2. Environmental precautions**

| | |
|---|---|
| **Environmental precautions** | Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains. |

**6.3. Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.

**General hygiene considerations** Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Keep out of the reach of children. Store away from other materials.

### 7.3. Specific end use(s)

**Specific use(s)** Analytical reagent.

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

**Exposure Limits**

| Chemical name | European Union | United Kingdom | Ireland |
|---|---|---|---|
| Sulfuric acid<br>7664-93-9 | TWA: 0.05 mg/m³; mist (thoracic fraction) | TWA: 0.05 mg/m³<br>STEL: 0.15 mg/m³ | TWA: 0.05 ppm<br>STEL: 0.15 ppm |
| Molybdate (Mo7O246-), hexaammonium<br>12027-67-7 | - | TWA: 5 mg/m³<br>STEL: 10 mg/m³ | TWA: 0.5 mg/m³<br>STEL: 30 mg/m³<br>STEL: 1.5 mg/m³ |

**Biological occupational exposure limits**

**Derived No Effect Level (DNEL) - Workers** No information available

**Predicted No Effect Concentration (PNEC)** No information available.

**8.2. Exposure controls**

**Engineering controls** Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves. Barrier creams may help to protect the exposed areas of skin. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374-1:2016 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016.

| Gloves | | | |
|---|---|---|---|
| Duration of contact | PPE - Glove material | Glove thickness | Break through time |
| Long term (repeated) | Wear protective Viton™ gloves | 0,70 mm | >480 minutes |
| Short term | Wear protective nitrile rubber gloves | 0,20 mm | >30 minutes |

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing. Wash contaminated clothing before reuse.

**Respiratory protection** Ensure adequate ventilation. No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**Recommended filter type:** ABEK-P3.

**General hygiene considerations** Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1. Information on basic physical and chemical properties**

**Physical state** Liquid
**Colour** colourless
**Odour** Odourless.

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | ~ -11 °C | |
| **Initial boiling point and boiling range** | ~ 100 °C | |
| **Flammability** | No data available | |
| **Upper flammability or explosive limits** | No data available | |
| **Lower flammability or explosive limits** | No data available | |
| **Flash point** | No data available | |
| **Autoignition temperature** | No data available | |

| | | |
|---|---|---|
| **Decomposition temperature** | No data available | |
| **pH** | 0.5 | @ 20 °C |
| **Kinematic viscosity** | No data available | |
| **Dynamic viscosity** | No data available | |
| **Partition coefficient** | No data available | |
| **Vapour pressure** | 3.1 kPa at 25 °C | |
| **Relative density** | 1.096 g/mL | @ 20 °C |
| **Relative vapor density** | 0.62 | |
| **Particle characteristics** | | |
| **Particle Size** | No information available | |
| **Particle Size Distribution** | No information available | |

**Solubility(ies)**

**Water solubility**

| Water solubility classification | Water solubility | Water Solubility Temperature |
|---|---|---|
| Soluble | > 1000 mg/L | 25 °C / 77 °F |

**Solubility in other solvents**

| Chemical Name | Solubility classification | Solubility | Solubility Temperature |
|---|---|---|---|
| Acid | Soluble | > 1000 mg/L | 25 °C / 77 °F |

**9.2. Other information**

**Molecular weight** Not applicable

**9.2.1. Information with regards to physical hazard classes**

**Corrosive to metals** Classified as corrosive to metal according to CLP criteria

**Steel Corrosion Rate** 97.03 mm/yr / 3.82 in/yr

**Aluminum Corrosion Rate** > 6.25 mm/yr / > 0.25 in/yr

***9.2.2. Other safety characteristics*** No information available

## Section 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

**Reactivity** Reacts violently with water. Corrosive to metal.

**10.2. Chemical stability**

**Stability** Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Possibility of hazardous reactions** Reacts with many compounds.

**Hazardous polymerisation** Hazardous polymerisation does not occur.

**10.4. Conditions to avoid**

**Conditions to avoid** Exposure to air or moisture over prolonged periods. To avoid thermal decomposition, do not overheat.

**10.5. Incompatible materials**

**Incompatible materials** Bases.

### 10.6. Hazardous decomposition products

**Hazardous Decomposition Products** Thermal decomposition can lead to release of irritating and toxic gases and vapours.

## Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity**
Based on available data, the classification criteria are not met

***Mixture*** No data available.

***Substance*** No data available.

**Oral Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Molybdate (Mo7O246-), hexaammonium | Rat $LD_{50}$ | 333 mg/kg | None reported | None reported | Vendor SDS |
| Diammonium sulfate | Rat $LD_{50}$ | 2840 mg/kg | None reported | None reported | GESTIS |

**Acute Toxicity Estimate (ATE)** Not applicable
mg/kg

**Unknown acute toxicity**
0 % of the mixture consists of ingredient(s) of unknown toxicity.

**Skin corrosion/irritation**
Causes severe burns.

***Mixture*** No data available.

***Substance*** Test data reported below.

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Sulfuric acid | Existing human experience | Human | None reported | None reported | Corrosive to skin | HSDB |
| Diammonium sulfate | Draize Test | Rabbit | 800 mg | 20 hours | Not corrosive or irritating to skin | ECHA |

**Serious eye damage/eye irritation**
Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns.

***Mixture*** No data available.

***Substance*** Test data reported below.

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| Sulfuric acid | Existing human experience | Human | None reported | None reported | Corrosive to eyes | HSDB |
| Diammonium sulfate | Draize Test | Rabbit | 0.050 mL | None reported | Not corrosive or irritating to eyes | ECHA |

**Respiratory or skin sensitisation**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** No data available.

**STOT - single exposure**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Oral Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Diammonium sulfate | Man $TD_{Lo}$ | 1500 mg/kg | None reported | **Gastrointestinal** Gas | RTECS |

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Sulfuric acid | Human $TD_{Lo}$ | 0.144 mg/L | 5 minutes | **Lungs, Thorax, or Respiration** Dyspnea | RTECS |

**STOT - repeated exposure**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Sulfuric acid | Human $TC_{Lo}$ | 0.003 mg/L | 168 days | **Musculoskeletal** Changes in teeth and supporting structures | RTECS |

**Germ cell mutagenicity**
Based on available data, the classification criteria are not met.

***Mixture invitro* Data** No data available.

***Substance invitro* Data** Test data reported below.

| Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Sulfuric acid | Cytogenetic | Hamster ovary | 4 mmol/L | None reported | Positive test | No information |

| | | | | | | |
|---|---|---|---|---|---|---|
| | analysis | | | | result for mutagenicity | available |

***Mixture invivo* Data** No data available.

***Substance invivo* Data** No data available.

**Carcinogenicity**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** No data available.

**Reproductive toxicity**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Sulfuric acid | Rabbit $TC_{Lo}$ | 0.02 mg/L | 7 hours | **Specific Developmental Abnormalities** Musculoskeletal system | No information available |

**Aspiration hazard**
Based on available data, the classification criteria are not met.

### 11.2. Information on other hazards

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

#### 11.2.1. Endocrine disrupting properties
This product does not contain any known or suspected endocrine disruptors.

#### 11.2.2. Other information
**Other adverse effects** No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity** Based on available data, the classification criteria are not met.

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

**Mixture**

**Acute aquatic toxicity:** No data available.

**Aquatic Chronic Toxicity:** No data available.

**Substance**

**Acute aquatic toxicity:** Test data reported below.

***Fish:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Molybdate (Mo7O246-), hexaammonium | 96 hours | *Oncorhynchus mykiss* | $LC_{50}$ | 320 mg/L | Vendor SDS |
| Diammonium sulfate | 96 hours | *Oncorhynchus mykiss* | $LC_{50}$ | 36.7 mg/L | GESTIS |

***Crustacea:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Molybdate (Mo7O246-), hexaammonium | 48 Hours | *Daphnia magna* | $EC_{50}$ | 140 mg/L | Vendor SDS |
| Diammonium sulfate | 48 Hours | None reported | $LC_{50}$ | 14 mg/L | GESTIS |

***Algae:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Molybdate (Mo7O246-), hexaammonium | 72 Hours | *Desmodesmus subspicatus* | $EC_{50}$ | 41 mg/L | Vendor SDS |

**Aquatic Chronic Toxicity:** No data available.

**12.2. Persistence and degradability**

**Mixture** No data available.

**12.3. Bioaccumulative potential**

**Mixture:** No data available.

**Partition coefficient** No data available

**12.4. Mobility in soil**

**Soil Organic Carbon-Water Partition Coefficient** No data available

**12.5. Results of PBT and vPvB assessment**

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

| Chemical name | PBT and vPvB assessment |
|---|---|
| Sulfuric acid | Not PBT/vPvB PBT assessment does not apply |
| Molybdate (Mo7O246-), hexaammonium | Not PBT/vPvB PBT assessment does not apply |
| Diammonium sulfate | Not PBT/vPvB PBT assessment does not apply |

**12.6. Endocrine disrupting properties**

**Endocrine Disruptor Information:** This product does not contain any known or suspected endocrine disruptors

**12.7. Other adverse effects**

No information available.

***Ozone:*** Not applicable

**Ozone depletion potential (ODP):** No information available

## Section 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

**Advice on Disposal**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Waste disposal number (residues/unused products)**

160506* WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.

**Waste disposal number (used product)**

160506* WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.

**Contaminated packaging** Dispose of contents/containers in accordance with local regulations.

**Other Information** Waste codes should be assigned by the user based on the application for which the product was used.

## Section 14: TRANSPORT INFORMATION

**ADR**

| | |
|---|---|
| **14.1 UN number or ID number** | UN3264 |
| **14.2 UN proper shipping name** | Not regulated |
| **14.3 Transport hazard class(es)** | 8 |
| **14.4 Packing Group** | III |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user** | |
| **Special Provisions** | 274 |
| **Classification code** | C1 |
| **Tunnel restriction code** | (E) |

**IATA**

| | |
|---|---|
| **14.1 UN number or ID number** | UN3264 |
| **14.2 UN proper shipping name** | & & (<TNI00317>) |
| **14.3 Transport hazard class(es)** | 8 |
| **14.4 Packing group** | III |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user** | |
| **Special Provisions** | None |

**IMDG**

| | |
|---|---|
| **14.1 UN number or ID number** | UN3264 |
| **14.2 UN proper shipping name** | & & (<TNW00317>) |
| **14.3 Transport hazard class(es)** | 8 |
| **14.4 Packing Group** | III |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user** | |

**Special Provisions** 223, 274
**EmS-No** F-A, S-B
**14.7 Maritime transport in bulk according to IMO instruments** No information available

**Additional information**
If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

## Section 15: REGULATORY INFORMATION

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

**National regulations**

**European Union**

**Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

**Take note of Directive 94/33/EC on the protection of young people at work**

**Authorisations and/or restrictions on use:**
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

| Chemical name | Restricted substance per REACH Annex XVII | Substance subject to authorisation per REACH Annex XIV |
|---|---|---|
| Sulfuric acid - 7664-93-9 | 75 | |
| Molybdate (Mo7O246-), hexaammonium - 12027-67-7 | 65 | |
| Diammonium sulfate - 7783-20-2 | 65 | |

**Persistent Organic Pollutants** Not applicable

**Dangerous substance category per Seveso Directive (2012/18/EU)** Non-controlled

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009** Not applicable

**Germany**
**Water hazard class (WGK)** slightly hazardous to water (WGK 1)

**France**
**Occupational Illnesses (R-463-3, France)**

| Chemical name | French RG number | Title |
|---|---|---|
| Sulfuric acid<br>7664-93-9 | RG 5,RG 20bis,RG 102<br>RG 14,RG 20bis,RG 65 | - |

| Chemical name | Explosives | REPORTABLE EXPLOSIVES PRECURSORS (2019/1148) |
|---|---|---|

| Chemical name | Explosives | REPORTABLE EXPLOSIVES PRECURSORS (2019/1148) |
|---|---|---|
| Sulfuric acid<br>7664-93-9 | 15 %w/w | |

10. Rozporządzenie Komisji (UE) 2020/878 z dnia 18 czerwca 2020 r. zmieniające załącznik II dorozporządzenia (WE) nr1907/2006 Parlamentu Europejskiego i Rady w sprawie rejestracji, oceny, udzielaniazezwoleń i stosowanych ograniczeń wzakresie chemikaliów (REACH).

**International Inventories**

| | |
|---|---|
| **EINECS/ELINCS** | Complies |
| **TSCA** | Complies |
| **DSL/NDSL** | Complies |
| **ENCS** | Complies |
| **IECSC** | Complies |
| **KECI** | Complies |
| **PICCS** | Complies |
| **AICS** | Complies |

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AICS** - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

**Chemical Safety Report** Chemical safety assessments for substances in this mixture were not carried out.

## Section 16: OTHER INFORMATION

**Issue Date** 11-27-2006

**Revision Date** 23-Mar-2026

**Revision Note** updated SDS sections:
1
11
12

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend**

| | |
|---|---|
| ** | Hazard Designation |
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieure |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| CAS | Chemical Abstracts Service Number |
| Ceiling | Maximum limit value |
| CLP | Classification, Labelling and Packaging of substances and mixtures [Regulation (EC) No. 1272/2008] |

| | |
|---|---|
| DNEL | Derived No Effect Level (DNEL) |
| EC | European Community |
| ECHA | ECHA (The European Chemicals Agency) |
| EC50 | Effective Concentration to 50% of a test population |
| EEC | European Economic Community |
| EN | European Standard |
| IMDG | International Maritime Dangerous Goods (IMDG) |
| IATA | International Air Transport Association (IATA) |
| IATA-DGR | International Air Transport Association - Dangerous Goods Regulations |
| ICAO | International Civil Aviation Organisation |
| ICAO-TI | International Civil Aviation Organization - Technical Instructions |
| IUCLID | IUCLID (The International Uniform Chemical Information Database) |
| GHS | Globally Harmonized System of Classification and Labelling of Chemicals |
| LOAEL | Lowest observed adverse effect level |
| LOAEC | Lowest observed adverse effect concentration |
| LC50 | Lethal Concentration to 50% of a test population |
| LD50 | Lethal Dose to 50% of a test population (Median Lethal Dose) |
| LOLI | LOLI (List of Lists - An International Chemical Regulatory Database) |
| MAK | Maximale Arbeitsplatz-Konzentration, a German expression corresponding to threshold limit value, which relates to safe daily exposure levels to chemical substances |
| NOAEL | No Observed Adverse Effect Level |
| NOAEC | No observed adverse effect concentration |
| OSHA | Occupational Safety and Health Administration of the US Department of Labour |
| PEC | Predicted Effect Concentration |
| PNEC | Predicted No Effect Concentration (PNEC) |
| PBT | Persistent, Bioaccumulative, and Toxic (PBT) Chemicals |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals [Regulation (EC) No. 1907/2006]) |
| RTECS | RTECS (Registry of Toxic Effects of Chemical Substances) |
| TWA | TWA (time-weighted average) |
| SKN* | Skin designation |
| SKN+ | Skin sensitisation |
| STEL | STEL (Short Term Exposure Limit) |
| STOT | Specific Target Organ Toxicity |
| STOT RE | Specific target organ toxicity (repeated exposure) |
| STOT SE | Specific target organ toxicity (single exposure) |
| SVHC | Substances of Very High Concern |
| TLV | Threshold Limit Value |
| TRGS | Technical rules for hazardous substances, Germany |
| TSCA | Toxic Substances Control Act |
| UN | United Nations |
| vPvB | very persistent and very bioaccumulative |
| VOC | Volatile organic compounds |
| AwSV | Administrative regulation of water polluting substances, Germany |

**Key literature references and sources for data**
See Section 11: TOXICOLOGICAL INFORMATION
See Section 12: ECOLOGICAL INFORMATION

**Classification procedure**

| **Classification according to Regulation (EC) No. 1272/2008 [CLP]** | **Method Used** |
|---|---|
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - Vapour | Calculation method |
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | Calculation method |
| Serious eye damage/eye irritation | Calculation method |
| Respiratory sensitisation | Calculation method |
| Skin sensitisation | Calculation method |

| | |
|---|---|
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| STOT - single exposure | Calculation method |
| STOT - repeated exposure | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration toxicity | Calculation method |
| Ozone | Calculation method |
| Corrosive to metals | On basis of test data |

**Full text of H-Statements referred to under section 3**
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H290 - May be corrosive to metals

**Training Advice** Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**Prepared By** Hach Product Compliance Department

**Restrictions on use** For Laboratory Use Only.

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**
**Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and Regulation (EC) No. 1272/2008**

**End of Safety Data Sheet**

# SAFETY DATA SHEET

**according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878**

**Issue Date** 05-Sep-2007 **Revision Date** 23-Mar-2026 **Print Date** 23-Mar-2026 **Version** 4.7

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Code(s)** 220399

**Product Name** Sulfite 1 Reagent

**Unique Formula Identifier (UFI)** PH92-VFVC-8008-PVQ6

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

**Recommended Use** Laboratory Reagent. Sulfite determination.

**Uses advised against** Consumer use

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

**Supplier**
HACH LANGE GmbH
Willstätterstr. 11
D-40549 Düsseldorf
Tel: +49 (0)211 5288-383
sds@hach.com

Responsible country contact:

HACH UK
Laser House
Ground Floor, Suite B
Waterfront Quay, Salford Quays
GB - Manchester, M50 3XW
Tel. +44 (0) 161 872 1487
info-uk@hach.com

HACH Ireland
Unit 34 GB Business Park
Little Island
IRL-Co. Cork
T45 H681
Tel. +353 (0)146 02 522
info-ie@hach.com

### 1.4. Emergency telephone number

UK: Chemtrec: +44 20 3807 3798
IE: National Poisons Information Centre (NPIC) 01 809 2566 (24/7)

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

***Classification according to Regulation (EC) No. 1272/2008 [CLP]***

| | |
|---|---|
| **Specific target organ toxicity (repeated exposure)** | Category 1 - (H372) |

**2.2. Label elements**

***Classification according to Regulation (EC) No. 1272/2008 [CLP]***

Contains Potassium iodide (KI)



**Signal word**
Danger

**Hazard statements**
H372 - Causes damage to organs through prolonged or repeated exposure

**Precautionary statements**
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P314 - Get medical advice/attention if you feel unwell
P501 - Dispose of contents/ container to an approved waste disposal plant

**2.3. Other hazards**
Causes mild skin irritation.

PBT & vPvB
This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT)
This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

Endocrine Disruptor Information
This product does not contain any known or suspected endocrine disruptors.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances**

Not applicable

**3.2 Mixtures**

| Chemical name | CAS No.<br>EC No.<br>Index No. | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|---|---|---|---|---|---|---|

| Chemical name | CAS No.<br>EC No.<br>Index No. | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|---|---|---|---|---|---|---|
| Potassium iodide (KI) | 7681-11-0<br>231-659-4<br>- | 90 - 100% | STOT RE 1 - H372 | | - | - |
| Amylodextrin | 9005-84-9<br>232-686-4<br>- | 1 - 5% | Not classified | | - | - |
| Carbonic acid, dipotassium salt | 584-08-7<br>209-529-3<br>- | 1 - 5% | Acute Tox. 4 - H302<br>Skin Irrit. 2 - H315<br>Eye Irrit. 2 - H319<br>STOT SE 3 - H335 | | - | - |

**Full text of H- and EUH-phrases: see section 16**

***Acute Toxicity Estimate***

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 - 4 hour - dust/mist - mg/L | Inhalation LC50 - 4 hour - vapour - mg/L | Inhalation LC50 - 4 hour - gas - ppm |
|---|---|---|---|---|---|
| Potassium iodide (KI)<br>7681-11-0 | 2779 mg/kg | None reported | None reported | None reported | None reported |
| Carbonic acid, dipotassium salt<br>584-08-7 | 1870 mg/kg | None reported | None reported | None reported | None reported |

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

**General advice** Show this safety data sheet to the doctor in attendance.

**Inhalation** Remove to fresh air.

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

**Skin contact** Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.

**Ingestion** Rinse mouth.

**Self-protection of the first aider** Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

**Symptoms** Prolonged contact may cause redness and irritation.

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

**Note to doctors** Treat symptomatically.

## Section 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available.

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

**Specific hazards arising from the chemical** Thermal decomposition can lead to release of irritating and toxic gases and vapours.

**Hazardous combustion products** This material will not burn.

### 5.3. Advice for firefighters

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

**Additional information** Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## Section 6: ACCIDENTAL RELEASE MEASURES

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

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

**For emergency responders** Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

**Environmental precautions** Should not be released into the environment. See Section 12 for additional Ecological Information.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

**General hygiene considerations** Avoid creating dust. Avoid breathing vapours or mists. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product.

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

**Storage Conditions** Store locked up. Accessible only for authorized persons.

### 7.3. Specific end use(s)

**Specific use(s)** Analytical reagent.

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

**Exposure Limits**

| Chemical name | European Union | United Kingdom | Ireland |
|---|---|---|---|
| Potassium iodide (KI)<br>7681-11-0 | - | - | TWA: 0.01 ppm<br>STEL: 0.1 ppm |

**Derived No Effect Level (DNEL) - Workers** No information available

**Predicted No Effect Concentration (PNEC)** No information available.

### 8.2. Exposure controls

**Engineering controls** Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves. Barrier creams may help to protect the exposed areas of skin. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374-1:2016 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016.

| Gloves | | | |
|---|---|---|---|
| Duration of contact | PPE - Glove material | Glove thickness | Break through time |
| Long term (repeated) | Wear protective Viton™ gloves | 0,70 mm | >480 minutes |
| Short term | Wear protective nitrile rubber gloves | 0,20 mm | >30 minutes |

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** Ensure adequate ventilation. No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**Recommended filter type:** ABEK-P3.

**General hygiene considerations** Avoid creating dust. Avoid breathing vapours or mists. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

**Physical state** Solid
**Colour** White to brown
**Odour** Odourless.

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | 130 °C | |
| **Initial boiling point and boiling range** | No data available | |
| **Flammability** | No data available | |
| **Upper flammability or explosive limits** | No data available | |
| **Lower flammability or explosive limits** | No data available | |
| **Flash point** | No data available | |
| **Autoignition temperature** | No data available | |
| **Decomposition temperature** | 130 °C | |
| **pH** | 9.4 | 5% @ 20°C |
| **Kinematic viscosity** | No data available | |
| **Dynamic viscosity** | No data available | |
| **Partition coefficient** | 0 | |
| **Vapour pressure** | | |
| **Relative density** | 1.053 g/cm³ | @ 20 °C |
| **Relative vapor density** | No data available | |
| **Particle characteristics** | | |
| **Particle Size** | No information available | |
| **Particle Size Distribution** | No information available | |

**Solubility(ies)**

**Water solubility**

| Water solubility classification | Water solubility | Water Solubility Temperature |
|---|---|---|
| Soluble | > 1000 mg/L | 25 °C / 77 °F |

**Solubility in other solvents**

| Chemical Name | Solubility classification | Solubility | Solubility Temperature |
|---|---|---|---|
| Acid | Soluble | > 1000 mg/L | 25 °C / 77 °F |

### 9.2. Other information

**9.2.1. Information with regards to physical hazard classes**

**Corrosive to metals**
**Steel Corrosion Rate** 0.18 mm/yr / 0.01 in/yr
**Aluminum Corrosion Rate** 0.05 mm/yr / 0 in/yr

***9.2.2. Other safety characteristics*** No information available

## Section 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

**Reactivity** No information available.

**10.2. Chemical stability**

**Stability** Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**Hazardous polymerisation** None under normal processing.

**10.4. Conditions to avoid**

**Conditions to avoid** None known based on information supplied.

**10.5. Incompatible materials**

**Incompatible materials** None known based on information supplied.

**10.6. Hazardous decomposition products**

**Hazardous Decomposition Products** potassium oxide. Iodine. iodine compounds.

## Section 11: TOXICOLOGICAL INFORMATION

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity**
Based on available data, the classification criteria are not met

***Mixture*** No data available.

***Substance*** No data available.

**Oral Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Potassium iodide (KI) | Rat $LD_{50}$ | 2779 mg/kg | None reported | None reported | RTECS |
| Carbonic acid, dipotassium salt | Rat $LD_{50}$ | 1870 mg/kg | None reported | None reported | GESTIS |

**Acute Toxicity Estimate (ATE)** Not applicable

**Unknown acute toxicity**
0 % of the mixture consists of ingredient(s) of unknown toxicity.

**Skin corrosion/irritation**
Classification based on data available for ingredients.

***Mixture*** No data available.

***Substance*** Test data reported below.

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Amylodextrin | Draize Test | Human | 0.300 mg | 3 days | Mild skin irritant | RTECS |

**Serious eye damage/eye irritation**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** No data available.

**Respiratory or skin sensitisation**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Skin Sensitization Exposure Route:**

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|---|---|---|---|---|
| Potassium iodide (KI) | Patch test | Human | No sensitisation responses were observed. | ERMA |

**STOT - single exposure**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Oral Exposure Route:**

**STOT - repeated exposure**
Causes damage to organs through prolonged or repeated exposure.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Oral Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Potassium iodide (KI) | Rat NOAEL | 0.5 mg/kg | 90 days | None reported | ECHA |

**Germ cell mutagenicity**
Based on available data, the classification criteria are not met.

***Mixture invitro* Data** No data available.

***Substance invitro* Data** Test data reported below.

| Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Potassium iodide (KI) | Cytogenetic analysis | Rat ascites tumor | 500 mg/kg | None reported | Positive test result for mutagenicity | RTECS |

***Mixture invivo* Data** No data available.

***Substance invivo* Data** No data available.

**Carcinogenicity**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** No data available.

**Reproductive toxicity**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Oral Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Potassium iodide (KI) | Human $TD_{Lo}$ | 2700 mg/kg | 39 weeks | **Specific Developmental Abnormalities** Endocrine System | RTECS |

**Aspiration hazard**
Based on available data, the classification criteria are not met.

### 11.2. Information on other hazards

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

#### 11.2.1. Endocrine disrupting properties
This product does not contain any known or suspected endocrine disruptors.

#### 11.2.2. Other information
**Other adverse effects** No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity** Based on available data, the classification criteria are not met.

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

**Mixture**

**Acute aquatic toxicity:** No data available.

**Aquatic Chronic Toxicity:** No data available.

**Substance**

**Acute aquatic toxicity:** No data available.

**Aquatic Chronic Toxicity:** No data available.

### 12.2. Persistence and degradability

**Mixture** No data available.

### 12.3. Bioaccumulative potential

**Mixture:** No data available.

**Partition coefficient** No data available

### 12.4. Mobility in soil

**Soil Organic Carbon-Water Partition Coefficient** No data available

### 12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

| Chemical name | PBT and vPvB assessment |
|---|---|
| Potassium iodide (KI) | Not PBT/vPvB PBT assessment does not apply |
| Carbonic acid, dipotassium salt | Not PBT/vPvB PBT assessment does not apply |

### 12.6. Endocrine disrupting properties

**Endocrine Disruptor Information:** This product does not contain any known or suspected endocrine disruptors

### 12.7. Other adverse effects

No information available.

***Ozone:*** Not applicable

**Ozone depletion potential (ODP):** No information available

## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Advice on Disposal**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Waste disposal number (residues/unused products)**

160506* WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.

**Waste disposal number (used product)**

| | |
|---|---|
| 160506* | WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste. |
| **Contaminated packaging** | Dispose of contents/containers in accordance with local regulations. |
| **Other Information** | Do not reuse empty containers. |

## Section 14: TRANSPORT INFORMATION

**ADR**

| | |
|---|---|
| **14.1 UN number or ID number** | Not regulated |
| **14.2 UN proper shipping name** | Not regulated |
| **14.3 Transport hazard class(es)** | Not regulated |
| **14.4 Packing Group** | Not regulated |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user** | |
| **Special Provisions** | None |

**IATA**

| | |
|---|---|
| **14.1 UN number or ID number** | Not regulated |
| **14.2 UN proper shipping name** | Not regulated |
| **14.3 Transport hazard class(es)** | Not regulated |
| **14.4 Packing group** | Not regulated |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user** | |
| **Special Provisions** | None |

**IMDG**

| | |
|---|---|
| **14.1 UN number or ID number** | Not regulated |
| **14.2 UN proper shipping name** | Not regulated |
| **14.3 Transport hazard class(es)** | Not regulated |
| **14.4 Packing Group** | Not regulated |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user** | |
| **Special Provisions** | None |
| **14.7 Maritime transport in bulk according to IMO instruments** | No information available |

**Additional information**
If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

## Section 15: REGULATORY INFORMATION

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

**National regulations**

**European Union**

**Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

**Take note of Directive 94/33/EC on the protection of young people at work**

**Authorisations and/or restrictions on use:**
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants** Not applicable

**Dangerous substance category per Seveso Directive (2012/18/EU)** Non-controlled

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009** Not applicable

**Germany**
**Water hazard class (WGK)** slightly hazardous to water (WGK 1)

| Chemical name | French RG number | Title |
|---|---|---|
| Carbonic acid, dipotassium salt<br>584-08-7 | RG 58,RG 67 | - |

10. Rozporządzenie Komisji (UE) 2020/878 z dnia 18 czerwca 2020 r. zmieniające załącznik II dorozporządzenia (WE) nr1907/2006 Parlamentu Europejskiego i Rady w sprawie rejestracji, oceny, udzielaniazezwoleń i stosowanych ograniczeń wzakresie chemikaliów (REACH).

**International Inventories**

| | |
|---|---|
| **EINECS/ELINCS** | Complies |
| **TSCA** | Complies |
| **DSL/NDSL** | Complies |
| **ENCS** | Complies |
| **IECSC** | Complies |
| **KECI** | Complies |
| **PICCS** | Complies |
| **AICS** | Complies |

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AICS** - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

**Chemical Safety Report** Chemical safety assessments for substances in this mixture were not carried out.

## Section 16: OTHER INFORMATION

**Issue Date** 05-Sep-2007

| | |
|---|---|
| **Revision Date** | 23-Mar-2026 |
| **Revision Note** | updated SDS sections:<br>1<br>11<br>12 |

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend**

| | |
|---|---|
| ** | Hazard Designation |
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieure |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| CAS | Chemical Abstracts Service Number |
| Ceiling | Maximum limit value |
| CLP | Classification, Labelling and Packaging of substances and mixtures [Regulation (EC) No. 1272/2008] |
| DNEL | Derived No Effect Level (DNEL) |
| EC | European Community |
| ECHA | ECHA (The European Chemicals Agency) |
| EC50 | Effective Concentration to 50% of a test population |
| EEC | European Economic Community |
| EN | European Standard |
| IMDG | International Maritime Dangerous Goods (IMDG) |
| IATA | International Air Transport Association (IATA) |
| IATA-DGR | International Air Transport Association - Dangerous Goods Regulations |
| ICAO | International Civil Aviation Organisation |
| ICAO-TI | International Civil Aviation Organization - Technical Instructions |
| IUCLID | IUCLID (The International Uniform Chemical Information Database) |
| GHS | Globally Harmonized System of Classification and Labelling of Chemicals |
| LOAEL | Lowest observed adverse effect level |
| LOAEC | Lowest observed adverse effect concentration |
| LC50 | Lethal Concentration to 50% of a test population |
| LD50 | Lethal Dose to 50% of a test population (Median Lethal Dose) |
| LOLI | LOLI (List of Lists - An International Chemical Regulatory Database) |
| MAK | Maximale Arbeitsplatz-Konzentration, a German expression corresponding to threshold limit value, which relates to safe daily exposure levels to chemical substances |
| NOAEL | No Observed Adverse Effect Level |
| NOAEC | No observed adverse effect concentration |
| OSHA | Occupational Safety and Health Administration of the US Department of Labour |
| PEC | Predicted Effect Concentration |
| PNEC | Predicted No Effect Concentration (PNEC) |
| PBT | Persistent, Bioaccumulative, and Toxic (PBT) Chemicals |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals [Regulation (EC) No. 1907/2006]) |
| RTECS | RTECS (Registry of Toxic Effects of Chemical Substances) |
| TWA | TWA (time-weighted average) |
| SKN* | Skin designation |
| SKN+ | Skin sensitisation |
| STEL | STEL (Short Term Exposure Limit) |
| STOT | Specific Target Organ Toxicity |
| STOT RE | Specific target organ toxicity (repeated exposure) |
| STOT SE | Specific target organ toxicity (single exposure) |
| SVHC | Substances of Very High Concern |
| TLV | Threshold Limit Value |
| TRGS | Technical rules for hazardous substances, Germany |
| TSCA | Toxic Substances Control Act |

| | |
|---|---|
| UN | United Nations |
| vPvB | very persistent and very bioaccumulative |
| VOC | Volatile organic compounds |
| AwSV | Administrative regulation of water polluting substances, Germany |

**Key literature references and sources for data**
See Section 11: TOXICOLOGICAL INFORMATION
See Section 12: ECOLOGICAL INFORMATION

**Classification procedure**

| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
|---|---|
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - Vapour | Calculation method |
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | Calculation method |
| Serious eye damage/eye irritation | Calculation method |
| Respiratory sensitisation | Calculation method |
| Skin sensitisation | Calculation method |
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| STOT - single exposure | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration toxicity | Calculation method |
| Ozone | Calculation method |

**Full text of H-Statements referred to under section 3**
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H372 - Causes damage to organs through prolonged or repeated exposure

**Training Advice** Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**Prepared By** Hach Product Compliance Department

**Restrictions on use** For Laboratory Use Only.

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**
**Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and Regulation (EC) No. 1272/2008**

**End of Safety Data Sheet**

# SAFETY DATA SHEET

**according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878**

**Issue Date** 01-Jul-2015 **Revision Date** 19-Mar-2026 **Print Date** 19-Mar-2026 **Version** 3.6

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Code(s)** 2408732

**Product Name** Sodium Thiosulfate Titrant, Stabilized, for Hydrogen Peroxide

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

**Recommended Use** Laboratory Reagent. Titrant Solution.

**Uses advised against** Consumer use

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

**Supplier**
HACH LANGE GmbH
Willstätterstr. 11
D-40549 Düsseldorf
Tel: +49 (0)211 5288-383
sds@hach.com

Responsible country contact:

HACH UK
Laser House
Ground Floor, Suite B
Waterfront Quay, Salford Quays
GB - Manchester, M50 3XW
Tel. +44 (0) 161 872 1487
info-uk@hach.com

HACH Ireland
Unit 34 GB Business Park
Little Island
IRL-Co. Cork
T45 H681
Tel. +353 (0)146 02 522
info-ie@hach.com

### 1.4. Emergency telephone number

UK: Chemtrec: +44 20 3807 3798
IE: National Poisons Information Centre (NPIC) 01 809 2566 (24/7)

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

***Classification according to Regulation (EC) No. 1272/2008 [CLP]***

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### 2.2. Label elements

***Classification according to Regulation (EC) No. 1272/2008 [CLP]***

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

**Hazard statements**
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### 2.3. Other hazards

No information available.

PBT & vPvB
This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT)
This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

Endocrine Disruptor Information
This product does not contain any known or suspected endocrine disruptors.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Not applicable

### 3.2 Mixtures

| Chemical name | CAS No.<br>EC No.<br>Index No. | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|---|---|---|---|---|---|---|
| 1,2-Propanediol | 57-55-6<br>200-338-0<br>- | 20 - 30% | Not classified | | - | - |

**Full text of H- and EUH-phrases: see section 16**

***Acute Toxicity Estimate***

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 - 4 hour - dust/mist - mg/L | Inhalation LC50 - 4 hour - vapour - mg/L | Inhalation LC50 - 4 hour - gas - ppm |
|---|---|---|---|---|---|
| 1,2-Propanediol<br>57-55-6 | 20000 mg/kg | 20800 mg/kg | None reported | None reported | None reported |

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

**General advice** Show this safety data sheet to the doctor in attendance.

**Inhalation** Remove to fresh air.

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

**Skin contact** Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.

**Ingestion** Rinse mouth.

**Self-protection of the first aider** Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

**Symptoms** No information available.

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

**Note to doctors** Treat symptomatically.

## Section 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

**Suitable Extinguishing Media** Product itself does not burn.

**Unsuitable extinguishing media** No information available.

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

**Specific hazards arising from the chemical** Thermal decomposition can lead to release of irritating and toxic gases and vapours.

**Hazardous combustion products** This material will not burn.

### 5.3. Advice for firefighters

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

**Additional information** Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## Section 6: ACCIDENTAL RELEASE MEASURES

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

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Evacuate personnel to safe areas.

**For emergency responders** Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

**Environmental precautions** Should not be released into the environment. See Section 12 for additional Ecological Information.

**6.3. Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

**7.1. Precautions for safe handling**

**Advice on safe handling** Ensure adequate ventilation.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

**7.3. Specific end use(s)**

**Specific use(s)** Analytical reagent.

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Control parameters**

**Exposure Limits**

| Chemical name | European Union | United Kingdom | Ireland |
|---|---|---|---|
| 1,2-Propanediol<br>57-55-6 | - | TWA: 150 ppm<br>TWA: 474 mg/m³<br>TWA: 10 mg/m³<br>STEL: 450 ppm<br>STEL: 1422 mg/m³<br>STEL: 30 mg/m³ | TWA: 10 mg/m³<br>TWA: 150 ppm<br>TWA: 470 mg/m³<br>STEL: 1410 mg/m³<br>STEL: 30 mg/m³<br>STEL: 450 ppm |

**Derived No Effect Level (DNEL) - Workers**

| Chemical name | Oral | Dermal | Inhalation |
|---|---|---|---|
| 1,2-Propanediol | - | 4 mg/kg bw/day [4] [6] | 7 mg/m³ [4] [6] |

| Chemical name | Oral | Dermal | Inhalation |
|---|---|---|---|
| 57-55-6 | | | |
| Sodium sulfate<br>7757-82-6 | - | - | 20 mg/m³ [4] [6]<br>20 mg/m³ [5] [6] |

**[4]** Systemic health effects
**[5]** Local health effects
**[6]** Long term

**Predicted No Effect Concentration (PNEC)** No information available.

| Chemical name | Freshwater | Freshwater (intermittent release) | Marine water | Marine water (intermittent release) | Air |
|---|---|---|---|---|---|
| 1,2-Propanediol<br>57-55-6 | 260 mg/L<br>0.0263 mg/L | 183 mg/L<br>0.263 mg/L | 26 mg/L<br>0.00263 mg/L | 0.0263 mg/L | - |
| Sodium sulfate<br>7757-82-6 | 11.09 mg/L | 17.66 mg/L | 1.109 mg/L | - | - |

| Chemical name | Freshwater sediment | Marine sediment | Sewage treatment | Soil | Food chain |
|---|---|---|---|---|---|
| 1,2-Propanediol<br>57-55-6 | 572 mg/kg sediment dw<br>0.344 mg/kg sediment dw | 57.2 mg/kg sediment dw<br>0.0344 mg/kg sediment dw | 20000 mg/L<br>100 mg/L | 50 mg/kg soil dw<br>0.0534 mg/kg soil dw | - |
| Sodium sulfate<br>7757-82-6 | 40.2 mg/kg sediment dw | 4.02 mg/kg sediment dw | 800 mg/L | 1.54 mg/kg soil dw | - |

### 8.2. Exposure controls

**Engineering controls** Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Barrier creams may help to protect the exposed areas of skin. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374-1:2016 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016.

**Skin and body protection** Avoid contact with eyes, skin and clothing.

**Respiratory protection** Ensure adequate ventilation.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

**Physical state** Liquid
**Colour** colourless
**Odour** sweet.

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | -5 °C | |
| **Initial boiling point and boiling range** | 99 °C | |
| **Flammability** | No data available | |
| **Upper flammability or explosive limits** | No data available | |
| **Lower flammability or explosive limits** | No data available | |
| **Flash point** | > 100 °C | OC (open cup) |
| **Autoignition temperature** | No data available | |
| **Decomposition temperature** | No data available | |
| **pH** | 9.9 | @ 20 °C |
| **Kinematic viscosity** | No data available | |
| **Dynamic viscosity** | No data available | |
| **Partition coefficient** | -0.09 | |
| **Vapour pressure** | 2.89 kPa at 25 °C | |
| **Relative density** | 1.02 g/mL | @ 20 °C |
| **Relative vapor density** | 0.62 | |
| **Particle characteristics** | | |
| **Particle Size** | No information available | |
| **Particle Size Distribution** | No information available | |

**Solubility(ies)**

**Water solubility**

| Water solubility classification | Water solubility | Water Solubility Temperature |
|---|---|---|
| Soluble | > 1000 mg/L | 25 °C / 77 °F |

**Solubility in other solvents**

| Chemical Name | Solubility classification | Solubility | Solubility Temperature |
|---|---|---|---|
| Acid | Soluble | > 1000 mg/L | 25 °C / 77 °F |

**9.2. Other information**

**9.2.1. Information with regards to physical hazard classes**

**Corrosive to metals**
**Steel Corrosion Rate** 0.15 mm/yr / 0.01 in/yr
**Aluminum Corrosion Rate** 0.08 mm/yr / 0 in/yr

***9.2.2. Other safety characteristics*** No information available

## Section 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

**Reactivity** No information available.

**10.2. Chemical stability**

**Stability** Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**Hazardous polymerisation** None under normal processing.

**10.4. Conditions to avoid**

**Conditions to avoid** None known based on information supplied.

**10.5. Incompatible materials**

**Incompatible materials** None known based on information supplied.

**10.6. Hazardous decomposition products**

**Hazardous Decomposition Products** None under normal use conditions.

## Section 11: TOXICOLOGICAL INFORMATION

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity**
Based on available data, the classification criteria are not met

***Mixture*** No data available.

***Substance*** Test data reported below.

**Oral Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| 1,2-Propanediol | Rat $LD_{50}$ | 20000 mg/kg | None reported | None reported | RTECS |

**Dermal Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| 1,2-Propanediol | Rabbit $LD_{50}$ | 20800 mg/kg | None reported | None reported | IUCLID |

**Inhalation (Dust/Mist) Exposure Route:**

**Acute Toxicity Estimate (ATE)** Not applicable

**Unknown acute toxicity**
0 % of the mixture consists of ingredient(s) of unknown toxicity.

**Skin corrosion/irritation**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Serious eye damage/eye irritation**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Respiratory or skin sensitisation**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Skin Sensitization Exposure Route:**

**STOT - single exposure**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** No data available.

**STOT - repeated exposure**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| 1,2-Propanediol | Rat $TC_{Lo}$ | 2.180 mg/L | 90 days | **Behavioral** Food intake **Biochemical** Enzyme inhibition, induction, or change in blood or tissue levels (dehydrogenases) **Endocrine** Changes in spleen weight | RTECS |

**Germ cell mutagenicity**
Based on available data, the classification criteria are not met.

***Mixture invitro* Data** No data available.

***Substance invitro* Data** Test data reported below.

| Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| 1,2-Propanediol | Cytogenetic analysis | Hamster fibroblast | 32000 mg/L | None reported | Positive test result for mutagenicity | RTECS |

***Mixture invivo* Data** No data available.

***Substance invivo* Data** No data available.

**Carcinogenicity**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** No data available.

**Reproductive toxicity**
Based on available data, the classification criteria are not met.

***Mixture*** No data available.

***Substance*** Test data reported below.

**Oral Exposure Route:**

**Aspiration hazard**
Based on available data, the classification criteria are not met.

### 11.2. Information on other hazards

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

**11.2.1. Endocrine disrupting properties**
This product does not contain any known or suspected endocrine disruptors.

**11.2.2. Other information**
**Other adverse effects** No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity** Based on available data, the classification criteria are not met.

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

**Mixture**

**Acute aquatic toxicity:** No data available.

**Aquatic Chronic Toxicity:** No data available.

**Substance**

**Acute aquatic toxicity:** Test data reported below.

***Fish:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| 1,2-Propanediol | 96 hours | *Pimephales promelas* | $LC_{50}$ | 51400 mg/L | IUCLID |

***Crustacea:***

| Chemical name | Exposure | Species | Endpoint type | Reported dose | Key literature references and |
|---|---|---|---|---|---|

| | time | | | | sources for data |
|---|---|---|---|---|---|
| 1,2-Propanediol | 48 Hours | *Daphnia magna* | $LC_{50}$ | 34400 mg/L | IUCLID |

***Algae:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| 1,2-Propanediol | 96 hours | *Selenastrum capricornutum* | $EC_{50}$ | 19000 mg/L | IUCLID |

**Aquatic Chronic Toxicity:** No data available.

**12.2. Persistence and degradability**

**Mixture** No data available.

**12.3. Bioaccumulative potential**

**Mixture:** No data available.

**Partition coefficient** Not applicable

**12.4. Mobility in soil**

**Soil Organic Carbon-Water Partition Coefficient** Not applicable

**12.5. Results of PBT and vPvB assessment**

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

| Chemical name | PBT and vPvB assessment |
|---|---|
| 1,2-Propanediol | Not PBT/vPvB |

**12.6. Endocrine disrupting properties**

**Endocrine Disruptor Information:** This product does not contain any known or suspected endocrine disruptors

**12.7. Other adverse effects**

No information available.

***Ozone:*** Not applicable

**Ozone depletion potential (ODP):** No information available

## Section 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

**Advice on Disposal**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Our local agencies will accept used cuvettes to ensure their proper disposal.

**Waste disposal number (residues/unused products)**

160506* WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and

discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.

**Waste disposal number (used product)**

| | |
|---|---|
| 160506* | WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste. |
| **Contaminated packaging** | Dispose of contents/containers in accordance with local regulations. |
| **Other Information** | Do not reuse empty containers. |

## Section 14: TRANSPORT INFORMATION

**ADR**

| | |
|---|---|
| **14.1 UN number or ID number** | Not regulated |
| **14.2 UN proper shipping name** | Not regulated |
| **14.3 Transport hazard class(es)** | Not regulated |
| **14.4 Packing Group** | Not regulated |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user Special Provisions** | None |

**IATA**

| | |
|---|---|
| **14.1 UN number or ID number** | Not regulated |
| **14.2 UN proper shipping name** | Not regulated |
| **14.3 Transport hazard class(es)** | Not regulated |
| **14.4 Packing group** | Not regulated |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user Special Provisions** | None |

**IMDG**

| | |
|---|---|
| **14.1 UN number or ID number** | Not regulated |
| **14.2 UN proper shipping name** | Not regulated |
| **14.3 Transport hazard class(es)** | Not regulated |
| **14.4 Packing Group** | Not regulated |
| **14.5 Environmental hazards** | Not applicable |
| **14.6 Special precautions for user Special Provisions** | None |
| **14.7 Maritime transport in bulk according to IMO instruments** | No information available |

**Additional information**
If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

## Section 15: REGULATORY INFORMATION

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

**National regulations**

**European Union**

**Authorisations and/or restrictions on use:**
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This

product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants** Not applicable

**Dangerous substance category per Seveso Directive (2012/18/EU)** Non-controlled

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009** Not applicable

**Germany**
**Water hazard class (WGK)** slightly hazardous to water (WGK 1)

**France**
**Occupational Illnesses (R-463-3, France)**

| Chemical name | French RG number | Title |
|---|---|---|
| 1,2-Propanediol<br>57-55-6 | RG 84 | - |

10. Rozporządzenie Komisji (UE) 2020/878 z dnia 18 czerwca 2020 r. zmieniające załącznik II dorozporządzenia (WE) nr1907/2006 Parlamentu Europejskiego i Rady w sprawie rejestracji, oceny, udzielaniazezwoleń i stosowanych ograniczeń wzakresie chemikaliów (REACH).

**International Inventories**

| | |
|---|---|
| **EINECS/ELINCS** | Complies |
| **TSCA** | Complies |
| **DSL/NDSL** | Complies |
| **ENCS** | Complies |
| **IECSC** | Complies |
| **KECI** | Complies |
| **PICCS** | Complies |
| **AICS** | Complies |

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AICS** - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

**Chemical Safety Report** Chemical safety assessments for substances in this mixture were not carried out.

## Section 16: OTHER INFORMATION

**Issue Date** 01-Jul-2015

| | |
|---|---|
| **Revision Date** | 19-Mar-2026 |
| **Revision Note** | updated SDS sections:<br>1<br>11<br>12 |

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend**

| | |
|---|---|
| ** | Hazard Designation |
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieure |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| CAS | Chemical Abstracts Service Number |
| Ceiling | Maximum limit value |
| CLP | Classification, Labelling and Packaging of substances and mixtures [Regulation (EC) No. 1272/2008] |
| DNEL | Derived No Effect Level (DNEL) |
| EC | European Community |
| ECHA | ECHA (The European Chemicals Agency) |
| EC50 | Effective Concentration to 50% of a test population |
| EEC | European Economic Community |
| EN | European Standard |
| IMDG | International Maritime Dangerous Goods (IMDG) |
| IATA | International Air Transport Association (IATA) |
| IATA-DGR | International Air Transport Association - Dangerous Goods Regulations |
| ICAO | International Civil Aviation Organisation |
| ICAO-TI | International Civil Aviation Organization - Technical Instructions |
| IUCLID | IUCLID (The International Uniform Chemical Information Database) |
| GHS | Globally Harmonized System of Classification and Labelling of Chemicals |
| LOAEL | Lowest observed adverse effect level |
| LOAEC | Lowest observed adverse effect concentration |
| LC50 | Lethal Concentration to 50% of a test population |
| LD50 | Lethal Dose to 50% of a test population (Median Lethal Dose) |
| LOLI | LOLI (List of Lists - An International Chemical Regulatory Database) |
| MAK | Maximale Arbeitsplatz-Konzentration, a German expression corresponding to threshold limit value, which relates to safe daily exposure levels to chemical substances |
| NOAEL | No Observed Adverse Effect Level |
| NOAEC | No observed adverse effect concentration |
| OSHA | Occupational Safety and Health Administration of the US Department of Labour |
| PEC | Predicted Effect Concentration |
| PNEC | Predicted No Effect Concentration (PNEC) |
| PBT | Persistent, Bioaccumulative, and Toxic (PBT) Chemicals |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals [Regulation (EC) No. 1907/2006]) |
| RTECS | RTECS (Registry of Toxic Effects of Chemical Substances) |
| TWA | TWA (time-weighted average) |
| SKN* | Skin designation |
| SKN+ | Skin sensitisation |
| STEL | STEL (Short Term Exposure Limit) |
| STOT | Specific Target Organ Toxicity |
| STOT RE | Specific target organ toxicity (repeated exposure) |
| STOT SE | Specific target organ toxicity (single exposure) |
| SVHC | Substances of Very High Concern |
| TLV | Threshold Limit Value |
| TRGS | Technical rules for hazardous substances, Germany |
| TSCA | Toxic Substances Control Act |

| | |
|---|---|
| UN | United Nations |
| vPvB | very persistent and very bioaccumulative |
| VOC | Volatile organic compounds |
| AwSV | Administrative regulation of water polluting substances, Germany |

**Key literature references and sources for data**
See Section 11: TOXICOLOGICAL INFORMATION
See Section 12: ECOLOGICAL INFORMATION

**Classification procedure**

| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
|---|---|
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - Vapour | Calculation method |
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | Calculation method |
| Serious eye damage/eye irritation | Calculation method |
| Respiratory sensitisation | Calculation method |
| Skin sensitisation | Calculation method |
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| STOT - single exposure | Calculation method |
| STOT - repeated exposure | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration toxicity | Calculation method |
| Ozone | Calculation method |

**Training Advice** Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**Prepared By** Hach Product Compliance Department

**Restrictions on use** For Laboratory Use Only.

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and Regulation (EC) No. 1272/2008**

**End of Safety Data Sheet**