# SAFETY DATA SHEET

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

**Issue Date** 01-15-2007 **Revision Date** 23-Mar-2026 **Print Date** 23-Mar-2026 **Version** 4.6

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

### 1.1. Product identifier

**Product Code(s)** 2659701

**Product Name** <0.1 NTU Calibration Solution

**Chemical Name** Not applicable

**Unique Formula Identifier (UFI)** */*

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

**Recommended Use** Water Analysis. Laboratory Reagent.

**Uses advised against**

### 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**

The product contains no substances which at their given concentration, are considered to be hazardous to health

| 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) |
|---|---|---|---|---|---|---|
| Ethyl alcohol | 64-17-5<br>200-578-6<br>603-002-00-5 | <1% | Flam. Liq. 2 - H225<br>Eye Irrit. 2 - H319<br>STOT SE 3 - H336<br>STOT RE 2 - H373 | | - | - |

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

***Acute Toxicity Estimate***

## 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** 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** 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** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

**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** Barrier creams may help to protect the exposed areas of skin. Wear suitable gloves. 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** Wash contaminated clothing before reuse.

**Respiratory protection** Ensure adequate ventilation. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**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** Slight.

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | ~ 0 °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** | 7 | @ 20 °C |
| **Kinematic viscosity** | No data available | |
| **Dynamic viscosity** | 1 | |
| **Partition coefficient** | -0 | |
| **Vapour pressure** | 3.2 kPa at 25 °C | |
| **Relative density** | 1 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 |
| Aromatic hydrocarbons | Insoluble | < 0.1 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** No data available
**Aluminum Corrosion Rate** No data available

***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** Hazardous polymerisation does not occur.

**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** Carbon oxides.

## 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:**

**Dermal Exposure Route:**

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

**Inhalation (Vapor) Exposure Route:**

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

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

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

**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*** Test data reported below.

**Oral Exposure Route:**

**Inhalation (Vapor) Exposure Route:**

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

***Mixture*** No data available.

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

**Oral Exposure Route:**

**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.

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

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

**Oral Exposure Route:**

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

***Mixture*** No data available.

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

**Oral Exposure Route:**

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

***Mixture*** No data available.

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

**Oral Exposure Route:**

**Inhalation (Dust/Mist) 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:** 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** 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.

**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 waste in accordance with environmental legislation. Dispose of in accordance with local regulations. |

**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**

## Section 15: REGULATORY INFORMATION

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

**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)** non-hazardous to water (nwg)

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** 01-15-2007

| | |
|---|---|
| **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 |
| STOT - repeated 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**
H225 - Highly flammable liquid and vapour
H319 - Causes serious eye irritation
H373 - May cause 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** 03-14-2007 **Revision Date** 23-Mar-2026 **Print Date** 23-Mar-2026 **Version** 3.22

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

### 1.1. Product identifier

**Product Code(s)** 2896701

**Product Name** StablCal® Reference Suspension I (3 NTU)

**Unique Formula Identifier (UFI)** 4XDX-9JQD-V50T-RH7T

**Molecular weight** Not applicable

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

**Recommended Use** Water Analysis. Standard 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]***

| | |
|---|---|
| **Respiratory sensitisation** | Category 1 - (H334) |
| **Skin sensitisation** | Category 1 - (H317) |

### 2.2. Label elements

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

Contains Methenamine



**Signal word**
Danger

**Hazard statements**
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

EUH208 - Contains Formaldehyde May produce an allergic reaction.

**Precautionary statements**
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves and eye/face protection
P285 - In case of inadequate ventilation wear respiratory protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
P363 - Wash contaminated clothing before reuse
P501 - Dispose of contents/container to industrial incineration plant

### 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) |
|---|---|---|---|---|---|---|
| Methenamine | 100-97-0<br>202-905-8<br>612-101-00-2 | <10% | Flam. Sol. 2 - H228<br>Skin Sens. 1 - H317<br>Resp. Sens. 1 - H334 | | - | - |
| Formaldehyde | 50-00-0<br>200-001-8<br>605-001-00-5 | <0.1% | Acute Tox. 4 - H302<br>Acute Tox. 3 - H311<br>Skin Corr. 1B - H314<br>Skin Sens. 1A - H317<br>Acute Tox. 2 - H330<br>Muta. 2 - H341<br>Carc. 1B - H350<br>STOT SE 3 - H335 | STOT SE 3 :H335: C>=5%<br>Skin Corr. 1B :H314: C>=25%<br>Skin Irrit. 2 :H315: 5%<=C<25%<br>Eye Irrit. 2 :H319: 5%<=C<25% | - | - |

**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 |
|---|---|---|---|---|---|
| Formaldehyde<br>50-00-0 | None reported | 270 mg/kg | None reported | None reported | None reported |

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

**General advice** Take off contaminated clothing and shoes immediately. Show this safety data sheet to the doctor in attendance.

**Inhalation** May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Get immediate medical attention.

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

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

| | |
|---|---|
| **Ingestion** | May produce an allergic reaction. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention. |
| **Self-protection of the first aider** | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information. |

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

| | |
|---|---|
| **Symptoms** | May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives. |

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

| | |
|---|---|
| **Note to doctors** | May cause sensitisation in susceptible persons. 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. Product is or contains a sensitiser. May cause sensitisation by inhalation and skin contact. May cause sensitisation by skin contact. |
| **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. Avoid breathing dust/fume/gas/mist/vapours/spray. Ensure adequate ventilation. Use personal protective equipment as required. 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** | Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. |

### 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. Ensure adequate ventilation. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash it before reuse.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work. Take off all contaminated clothing and wash it before reuse. Barrier creams may help to protect the exposed areas of skin.

### 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 light. Keep out of the reach of children.

### 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 |
|---|---|---|---|
| Formaldehyde<br>50-00-0 | TWA: 0.37 mg/m³;<br>TWA: 0.62 mg/m³;<br>TWA: 0.3 ppm;<br>TWA: 0.5 ppm;<br>STEL: 0.74 mg/m³;<br>STEL: 0.6 ppm;<br>DS | TWA: 2 ppm<br>TWA: 2.5 mg/m³<br>STEL: 2 ppm<br>STEL: 2.5 mg/m³ | TWA: 0.3 ppm<br>TWA: 0.5 ppm<br>TWA: 0.37 mg/m³<br>TWA: 0.62 mg/m³<br>STEL: 0.6 ppm<br>STEL: 0.738 mg/m³<br>STEL: 1.86 mg/m³<br>STEL: 1.5 ppm<br>Sens+ |

**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. 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. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work. Take off all contaminated clothing and wash it before reuse. Barrier creams may help to protect the exposed areas of skin.

**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** Milky white
**Odour** Odourless.

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | 0 °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** | > 100 | |
| **Autoignition temperature** | No data available | |
| **Decomposition temperature** | 100 | |
| **pH** | 7.85 | @ 20 °C |
| **Kinematic viscosity** | No data available | |
| **Dynamic viscosity** | No data available | |

| | | |
|---|---|---|
| **Partition coefficient** | No data available | |
| **Vapour pressure** | 2.33 kPa at 20 °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**

**Molecular weight** Not applicable

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

**Corrosive to metals**

**Steel Corrosion Rate** No data available

**Aluminum Corrosion Rate** No data available

***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** Hazardous polymerisation does not occur.

**10.4. Conditions to avoid**

**Conditions to avoid** Extremes of temperature and direct sunlight.

**10.5. Incompatible materials**

**Incompatible materials** Oxidising agent.

**10.6. Hazardous decomposition products**

**Hazardous Decomposition Products** Ammonia. Carbon monoxide. Formaldehyde. nitrogen oxides. Sodium oxides. Sulphur oxides.

## 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:**

**Dermal Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Rabbit $LD_{50}$ | 270 mg/kg | None reported | None reported | GESTIS |

**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.

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

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

***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 |
|---|---|---|---|---|---|---|
| Methenamine | OECD Test 404: Acute Dermal Corrosion/Irritation | Rabbit | 500 mg | 4 hours | Not corrosive or irritating to skin | ECHA |
| Formaldehyde | Draize Test | Human | 0.150 mg | 72 hours | Corrosive to skin | RTECS |

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

***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 |
|---|---|---|---|---|---|---|
| Methenamine | OECD Test 405: Acute Eye Corrosion/Irritation | Rabbit | 100 mg | 24 hours | Not corrosive or irritating to eyes | ECHA |
| Formaldehyde | Rinse Test | Human | 1 ppm | 6 minutes | Corrosive to eyes | RTECS |

**Respiratory or skin sensitisation**
May cause sensitisation by inhalation. May cause sensitisation by skin contact.

***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 |
|---|---|---|---|---|
| Methenamine | OECD Test No. 406: Skin Sensitisation | Guinea pig | Confirmed to be a skin sensitizer | ECHA |
| Formaldehyde | Patch test | Human | Confirmed to be a skin sensitizer | ERMA |

**Respiratory Sensitization Exposure Route:**

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|---|---|---|---|---|
| Methenamine | Based on human experience | Human | Confirmed to be a respiratory sensitizer | HSDB |
| Formaldehyde | IgE Specific Immune Response Test | Guinea pig | Confirmed to be a respiratory sensitizer | CICAD |

**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 |
|---|---|---|---|---|---|
| Formaldehyde | Human $LD_{Lo}$ | 70 mg/kg | None reported | **Gastrointestinal**<br>**Kidney, Ureter, or Bladder**<br>**Liver**<br>Other changes<br>Ulcerated stomach<br>Other changes | RTECS |

**STOT - repeated 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 |
|---|---|---|---|---|---|
| Methenamine | Rat NOAEL | 80 mg/kg | None reported | None reported | Vendor SDS |

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

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Methenamine | Rat $TC_{Lo}$ | 350 mg/m$^3$ | 21 days | **Kidney, Ureter, or Bladder**<br>Urine volume decreased or anuria<br>**Nutritional and Gross Metabolic**<br>Weight loss or decreased weight gain<br>**Biochemical**<br>Enzyme inhibition, induction, or change in blood or tissue levels (true cholinesterase) | RTECS |

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Human $TC_{Lo}$ | 0.017 mg/L | 0.5 days | **Eye**<br>**Lungs, Thorax, or Respiration**<br>Lacrimation<br>Other changes | RTECS |

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

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic

| Chemical name | European Union |
|---|---|
| Formaldehyde | Muta. 2 |

***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 |
|---|---|---|---|---|---|---|
| Methenamine | Cytogenetic analysis | Human HeLa Cell | 1 mmol/L | None reported | Positive test result for mutagenicity | RTECS |

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

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

**Oral Exposure Route:**

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

| | | | | | | |
|---|---|---|---|---|---|---|
| Methenamine | Dominant lethal test | Mouse | 25000 mg/kg | None reported | Positive test result for mutagenicity | RTECS |

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Formaldehyde | Micronucleus test | Human | .000985 mg/L | 8.5 years | Positive test result for mutagenicity | RTECS |

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

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | European Union |
|---|---|
| Formaldehyde | Carc. 1B |

***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 |
|---|---|---|---|---|---|
| Formaldehyde | Rat | 15 mg/L | 78 weeks | **Olfaction** Tumors | RTECS |

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

***Mixture*** No data available.

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

**Oral Exposure Route:**

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Rat $TC_{Lo}$ | 40 mg/L | 14 days | **Effects on Embryo or Fetus** Fetotoxicity (except death e.g. stunted fetus) | 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:** Test data reported below.

***Fish:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | 96 hours | *Pimephales promelas* | $LC_{50}$ | 22.6 mg/L | LOLI |

***Crustacea:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | 48 Hours | *Daphnia pulex* | $LC_{50}$ | 2 mg/L | LOLI |

**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 |
|---|---|
| Methenamine | Not PBT/vPvB |
| Formaldehyde | 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.

**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** 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**

## 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) This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

| Chemical name | Restricted substance per REACH Annex XVII | Substance subject to authorisation per REACH Annex XIV |
|---|---|---|
| Methenamine - 100-97-0 | 75<br>77 | |
| Formaldehyde - 50-00-0 | 72<br>77<br>28<br>75 | |

**Persistent Organic Pollutants** Not applicable

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

**Named dangerous substances per Seveso Directive (2012/18/EU)**

| Chemical name | Lower-tier requirements (tons) | Upper-tier requirements (tons) |
|---|---|---|
| Formaldehyde - 50-00-0 | 5 | 50 |

**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 |
|---|---|---|
| Methenamine<br>100-97-0 | RG 15bis,RG 74 | - |

| | | |
|---|---|---|
| Formaldehyde<br>50-00-0 | RG 43,RG 43bis,RG 84<br>RG 84<br>RG 5,RG 20bis,RG 102<br>RG 2,RG 9,RG 14,RG 20,RG 34,RG 65 | - |

| Chemical name | Explosives | REPORTABLE EXPLOSIVES PRECURSORS (2019/1148) |
|---|---|---|
| Methenamine<br>100-97-0 | | Present |

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** | Does not comply |
| **IECSC** | Complies |
| **KECI** | Complies |
| **PICCS** | Does not comply |
| **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** 03-14-2007

**Revision Date** 23-Mar-2026

**Revision Note** (M)SDS sections updated
2

**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 |
| 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 |

**Full text of H-Statements referred to under section 3**
H228 - Flammable solid
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H331 - Toxic if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H341 - Suspected of causing genetic defects
H350 - May cause cancer

**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** 03-14-2007 **Revision Date** 23-Mar-2026 **Print Date** 23-Mar-2026 **Version** 3.3

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

### 1.1. Product identifier

**Product Code(s)** 2896801

**Product Name** StablCal® Reference Suspension II (6 NTU)

**Unique Formula Identifier (UFI)** CTEX-CJMC-X50R-CX2F

**Molecular weight** Not applicable

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

**Recommended Use** Water Analysis. Standard 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]***

| | |
|---|---|
| **Respiratory sensitisation** | Category 1 - (H334) |
| **Skin sensitisation** | Category 1 - (H317) |

### 2.2. Label elements

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

Contains Methenamine



**Signal word**
Danger

**Hazard statements**
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

EUH208 - Contains Formaldehyde May produce an allergic reaction.

**Precautionary statements**
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves and eye/face protection
P285 - In case of inadequate ventilation wear respiratory protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
P363 - Wash contaminated clothing before reuse
P501 - Dispose of contents/container to industrial incineration plant

### 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) |
|---|---|---|---|---|---|---|
| Methenamine | 100-97-0<br>202-905-8<br>612-101-00-2 | <10% | Flam. Sol. 2 - H228<br>Skin Sens. 1 - H317<br>Resp. Sens. 1 - H334 | | - | - |
| Sodium sulfate | 7757-82-6<br>231-820-9<br>- | <1% | Not classified | | - | - |
| Formaldehyde | 50-00-0<br>200-001-8<br>605-001-00-5 | <0.1% | Acute Tox. 4 - H302<br>Acute Tox. 3 - H311<br>Skin Corr. 1B - H314<br>Skin Sens. 1A - H317<br>Acute Tox. 2 - H330<br>Muta. 2 - H341<br>Carc. 1B - H350<br>STOT SE 3 - H335 | STOT SE 3 :H335: C>=5%<br>Skin Corr. 1B :H314: C>=25%<br>Skin Irrit. 2 :H315: 5%<=C<25%<br>Eye Irrit. 2 :H319: 5%<=C<25% | - | - |
| Diammonium sulfate | 7783-20-2<br>231-984-1<br>- | <0.01% | Not classified | | - | - |
| Formazin polymer | 1263063-17-7<br>-<br>- | <0.01% | 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 |
|---|---|---|---|---|---|
| Formaldehyde<br>50-00-0 | None reported | 270 mg/kg | None reported | None reported | None reported |

## Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures**

**General advice** Take off contaminated clothing and shoes immediately. Show this safety data sheet to the doctor in attendance.

| | |
|---|---|
| **Inhalation** | May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Get immediate medical attention. |
| **Eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor. |
| **Skin contact** | Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. |
| **Ingestion** | May produce an allergic reaction. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention. |
| **Self-protection of the first aider** | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information. |

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

| | |
|---|---|
| **Symptoms** | May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives. |

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

| | |
|---|---|
| **Note to doctors** | May cause sensitisation in susceptible persons. 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. Product is or contains a sensitiser. May cause sensitisation by inhalation and skin contact. May cause sensitisation by skin contact. |
| **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. Avoid breathing dust/fume/gas/mist/vapours/spray. Ensure adequate ventilation. Use personal protective equipment as required. 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** Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

**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. Ensure adequate ventilation. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash it before reuse.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work. Take off all contaminated clothing and wash it before reuse. Barrier creams may help to protect the exposed areas of skin.

**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 light. Keep out of the reach of children.

**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 |
|---|---|---|---|
| Formaldehyde<br>50-00-0 | TWA: 0.37 mg/m³;<br>TWA: 0.62 mg/m³;<br>TWA: 0.3 ppm; | TWA: 2 ppm<br>TWA: 2.5 mg/m³<br>STEL: 2 ppm | TWA: 0.3 ppm<br>TWA: 0.5 ppm<br>TWA: 0.37 mg/m³ |

| | | | |
|---|---|---|---|
| | TWA: 0.5 ppm;<br>STEL: 0.74 mg/m³;<br>STEL: 0.6 ppm;<br>DS | STEL: 2.5 mg/m³ | TWA: 0.62 mg/m³<br>STEL: 0.6 ppm<br>STEL: 0.738 mg/m³<br>STEL: 1.86 mg/m³<br>STEL: 1.5 ppm<br>Sens+ |

**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. 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. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work. Take off all contaminated clothing and wash it before reuse. Barrier creams may help to protect the exposed areas of skin.

**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** Milky white
**Odour** Odourless.

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | 0 °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** | > 100 | |
| **Autoignition temperature** | No data available | |
| **Decomposition temperature** | 100 | |
| **pH** | 7.85 | @ 20 °C |
| **Kinematic viscosity** | No data available | |
| **Dynamic viscosity** | No data available | |
| **Partition coefficient** | No data available | |
| **Vapour pressure** | 2.33 kPa at 20 °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**

**Molecular weight** Not applicable

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

**Corrosive to metals**

**Steel Corrosion Rate** No data available

**Aluminum Corrosion Rate** No data available

***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** Hazardous polymerisation does not occur.

**10.4. Conditions to avoid**

**Conditions to avoid** Extremes of temperature and direct sunlight.

**10.5. Incompatible materials**

**Incompatible materials** Oxidising agent.

**10.6. Hazardous decomposition products**

**Hazardous Decomposition Products** Ammonia. Carbon monoxide. Formaldehyde. nitrogen oxides. Sodium oxides. Sulphur oxides.

## 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:**

**Dermal Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Rabbit $LD_{50}$ | 270 mg/kg | None reported | None reported | GESTIS |

**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.

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

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

***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 |
|---|---|---|---|---|---|---|
| Methenamine | OECD Test 404: | Rabbit | 500 mg | 4 hours | Not corrosive or | ECHA |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Acute Dermal Corrosion/Irritation | | | | irritating to skin | |
| Formaldehyde | Draize Test | Human | 0.150 mg | 72 hours | Corrosive to skin | RTECS |

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

***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 |
|---|---|---|---|---|---|---|
| Methenamine | OECD Test 405: Acute Eye Corrosion/Irritation | Rabbit | 100 mg | 24 hours | Not corrosive or irritating to eyes | ECHA |
| Formaldehyde | Rinse Test | Human | 1 ppm | 6 minutes | Corrosive to eyes | RTECS |

**Respiratory or skin sensitisation**
May cause sensitisation by inhalation. May cause sensitisation by skin contact.

***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 |
|---|---|---|---|---|
| Methenamine | OECD Test No. 406: Skin Sensitisation | Guinea pig | Confirmed to be a skin sensitizer | ECHA |
| Formaldehyde | Patch test | Human | Confirmed to be a skin sensitizer | ERMA |

**Respiratory Sensitization Exposure Route:**

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|---|---|---|---|---|
| Methenamine | Based on human experience | Human | Confirmed to be a respiratory sensitizer | HSDB |
| Formaldehyde | IgE Specific Immune Response Test | Guinea pig | Confirmed to be a respiratory sensitizer | CICAD |

**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 |
|---|---|---|---|---|---|
| Formaldehyde | Human $LD_{Lo}$ | 70 mg/kg | None reported | **Gastrointestinal Kidney, Ureter, or Bladder Liver** | RTECS |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Other changes<br>Ulcerated stomach<br>Other changes | |

**STOT - repeated 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 |
|---|---|---|---|---|---|
| Methenamine | Rat<br>NOAEL | 80 mg/kg | None reported | None reported | Vendor SDS |

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

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Methenamine | Rat<br>$TC_{Lo}$ | 350 mg/m³ | 21 days | **Kidney, Ureter, or Bladder**<br>Urine volume decreased or anuria<br>**Nutritional and Gross Metabolic**<br>Weight loss or decreased weight gain<br>**Biochemical**<br>Enzyme inhibition, induction, or change in blood or tissue levels (true cholinesterase) | RTECS |

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Human<br>$TC_{Lo}$ | 0.017 mg/L | 0.5 days | **Eye**<br>**Lungs, Thorax, or Respiration**<br>Lacrimation<br>Other changes | RTECS |

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

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic

| Chemical name | European Union |
|---|---|
| Formaldehyde | Muta. 2 |

***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 |
|---|---|---|---|---|---|---|
| Methenamine | Cytogenetic analysis | Human HeLa Cell | 1 mmol/L | None reported | Positive test result for mutagenicity | RTECS |

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

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

**Oral Exposure Route:**

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Methenamine | Dominant lethal test | Mouse | 25000 mg/kg | None reported | Positive test result for mutagenicity | RTECS |

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Formaldehyde | Micronucleus test | Human | .000985 mg/L | 8.5 years | Positive test result for mutagenicity | RTECS |

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

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | European Union |
|---|---|
| Formaldehyde | Carc. 1B |

***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 |
|---|---|---|---|---|---|
| Formaldehyde | Rat | 15 mg/L | 78 weeks | **Olfaction** Tumors | RTECS |

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

***Mixture*** No data available.

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

**Oral Exposure Route:**

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Rat $TC_{Lo}$ | 40 mg/L | 14 days | **Effects on Embryo or Fetus** Fetotoxicity (except death e.g. stunted fetus) | 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:** Test data reported below.

***Fish:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | 96 hours | *Pimephales promelas* | $LC_{50}$ | 22.6 mg/L | LOLI |

***Crustacea:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | 48 Hours | *Daphnia pulex* | $LC_{50}$ | 2 mg/L | LOLI |

**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 |
|---|---|
| Methenamine | Not PBT/vPvB |
| Formaldehyde | 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.

**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** 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**

## 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) This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

| Chemical name | Restricted substance per REACH Annex XVII | Substance subject to authorisation per REACH Annex XIV |
|---|---|---|
| Methenamine - 100-97-0 | 75<br>77 | |
| Formaldehyde - 50-00-0 | 72<br>77<br>28<br>75 | |

**Persistent Organic Pollutants** Not applicable

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

**Named dangerous substances per Seveso Directive (2012/18/EU)**

| Chemical name | Lower-tier requirements (tons) | Upper-tier requirements (tons) |
|---|---|---|
| Formaldehyde - 50-00-0 | 5 | 50 |

**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 |
|---|---|---|
| Methenamine<br>100-97-0 | RG 15bis,RG 74 | - |
| Formaldehyde<br>50-00-0 | RG 43,RG 43bis,RG 84<br>RG 84<br>RG 5,RG 20bis,RG 102<br>RG 2,RG 9,RG 14,RG 20,RG 34,RG 65 | - |

| Chemical name | Explosives | REPORTABLE EXPLOSIVES PRECURSORS (2019/1148) |
|---|---|---|
| Methenamine<br>100-97-0 | | Present |

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** | Does not comply |
| **IECSC** | Complies |
| **KECI** | Complies |
| **PICCS** | Does not comply |
| **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** 03-14-2007

**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 |
| 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 |

**Full text of H-Statements referred to under section 3**
H228 - Flammable solid
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H331 - Toxic if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H341 - Suspected of causing genetic defects
H350 - May cause cancer

**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** 03-14-2007 **Revision Date** 23-Mar-2026 **Print Date** 23-Mar-2026 **Version** 3.5

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

### 1.1. Product identifier

**Product Code(s)** 2896901

**Product Name** StablCal® Reference Suspension III (18 NTU)

**Unique Formula Identifier (UFI)** FNFX-EJHC-050Q-YAW3

**Molecular weight** Not applicable

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

**Recommended Use** Water Analysis. Standard 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]***

| | |
|---|---|
| **Respiratory sensitisation** | Category 1 - (H334) |
| **Skin sensitisation** | Category 1 - (H317) |

### 2.2. Label elements

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

Contains Methenamine



**Signal word**
Danger

**Hazard statements**
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

EUH208 - Contains Formaldehyde May produce an allergic reaction.

**Precautionary statements**
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves and eye/face protection
P285 - In case of inadequate ventilation wear respiratory protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
P363 - Wash contaminated clothing before reuse
P501 - Dispose of contents/container to industrial incineration plant

### 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) |
|---|---|---|---|---|---|---|
| Methenamine | 100-97-0<br>202-905-8<br>612-101-00-2 | <10% | Flam. Sol. 2 - H228<br>Skin Sens. 1 - H317<br>Resp. Sens. 1 - H334 | | - | - |
| Sodium sulfate | 7757-82-6<br>231-820-9<br>- | <1% | Not classified | | - | - |
| Formaldehyde | 50-00-0<br>200-001-8<br>605-001-00-5 | <0.1% | Acute Tox. 4 - H302<br>Acute Tox. 3 - H311<br>Skin Corr. 1B - H314<br>Skin Sens. 1A - H317<br>Acute Tox. 2 - H330<br>Muta. 2 - H341<br>Carc. 1B - H350<br>STOT SE 3 - H335 | STOT SE 3 :H335: C>=5%<br>Skin Corr. 1B :H314: C>=25%<br>Skin Irrit. 2 :H315: 5%<=C<25%<br>Eye Irrit. 2 :H319: 5%<=C<25% | - | - |
| Diammonium sulfate | 7783-20-2<br>231-984-1<br>- | <0.01% | Not classified | | - | - |
| Formazin polymer | 1263063-17-7<br>-<br>- | <0.01% | 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 |
|---|---|---|---|---|---|
| Formaldehyde<br>50-00-0 | None reported | 270 mg/kg | None reported | None reported | None reported |

## Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures**

**General advice** Take off contaminated clothing and shoes immediately. Show this safety data sheet to the doctor in attendance.

| | |
|---|---|
| **Inhalation** | May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Get immediate medical attention. |
| **Eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor. |
| **Skin contact** | Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. |
| **Ingestion** | May produce an allergic reaction. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention. |
| **Self-protection of the first aider** | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information. |

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

| | |
|---|---|
| **Symptoms** | May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives. |

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

| | |
|---|---|
| **Note to doctors** | May cause sensitisation in susceptible persons. 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. Product is or contains a sensitiser. May cause sensitisation by inhalation and skin contact. May cause sensitisation by skin contact. |
| **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. Avoid breathing dust/fume/gas/mist/vapours/spray. Ensure adequate ventilation. Use personal protective equipment as required. 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** Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

**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. Ensure adequate ventilation. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash it before reuse.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work. Take off all contaminated clothing and wash it before reuse. Barrier creams may help to protect the exposed areas of skin.

**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 light. Keep out of the reach of children.

**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 |
|---|---|---|---|
| Formaldehyde<br>50-00-0 | TWA: 0.37 mg/m³;<br>TWA: 0.62 mg/m³;<br>TWA: 0.3 ppm; | TWA: 2 ppm<br>TWA: 2.5 mg/m³<br>STEL: 2 ppm | TWA: 0.3 ppm<br>TWA: 0.5 ppm<br>TWA: 0.37 mg/m³ |

| | | | |
|---|---|---|---|
| | TWA: 0.5 ppm;<br>STEL: 0.74 mg/m³;<br>STEL: 0.6 ppm;<br>DS | STEL: 2.5 mg/m³ | TWA: 0.62 mg/m³<br>STEL: 0.6 ppm<br>STEL: 0.738 mg/m³<br>STEL: 1.86 mg/m³<br>STEL: 1.5 ppm<br>Sens+ |

**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. 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. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work. Take off all contaminated clothing and wash it before reuse. Barrier creams may help to protect the exposed areas of skin.

**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** Milky white
**Odour** Odourless.

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | 0 °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** | > 100 | |
| **Autoignition temperature** | No data available | |
| **Decomposition temperature** | 100 | |
| **pH** | 7.85 | @ 20 °C |
| **Kinematic viscosity** | No data available | |
| **Dynamic viscosity** | No data available | |
| **Partition coefficient** | No data available | |
| **Vapour pressure** | 2.33 kPa at 20 °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**

**Molecular weight** Not applicable

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

**Corrosive to metals**

**Steel Corrosion Rate** No data available

**Aluminum Corrosion Rate** No data available

***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** Hazardous polymerisation does not occur.

**10.4. Conditions to avoid**

**Conditions to avoid** Extremes of temperature and direct sunlight.

**10.5. Incompatible materials**

**Incompatible materials** Oxidising agent.

**10.6. Hazardous decomposition products**

**Hazardous Decomposition Products** Ammonia. Carbon monoxide. Formaldehyde. nitrogen oxides. Sodium oxides. Sulphur oxides.

## 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:**

**Dermal Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Rabbit $LD_{50}$ | 270 mg/kg | None reported | None reported | GESTIS |

**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.

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

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

***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 |
|---|---|---|---|---|---|---|
| Methenamine | OECD Test 404: | Rabbit | 500 mg | 4 hours | Not corrosive or | ECHA |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Acute Dermal Corrosion/Irritation | | | | irritating to skin | |
| Formaldehyde | Draize Test | Human | 0.150 mg | 72 hours | Corrosive to skin | RTECS |

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

***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 |
|---|---|---|---|---|---|---|
| Methenamine | OECD Test 405: Acute Eye Corrosion/Irritation | Rabbit | 100 mg | 24 hours | Not corrosive or irritating to eyes | ECHA |
| Formaldehyde | Rinse Test | Human | 1 ppm | 6 minutes | Corrosive to eyes | RTECS |

**Respiratory or skin sensitisation**
May cause sensitisation by inhalation. May cause sensitisation by skin contact.

***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 |
|---|---|---|---|---|
| Methenamine | OECD Test No. 406: Skin Sensitisation | Guinea pig | Confirmed to be a skin sensitizer | ECHA |
| Formaldehyde | Patch test | Human | Confirmed to be a skin sensitizer | ERMA |

**Respiratory Sensitization Exposure Route:**

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|---|---|---|---|---|
| Methenamine | Based on human experience | Human | Confirmed to be a respiratory sensitizer | HSDB |
| Formaldehyde | IgE Specific Immune Response Test | Guinea pig | Confirmed to be a respiratory sensitizer | CICAD |

**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 |
|---|---|---|---|---|---|
| Formaldehyde | Human $LD_{Lo}$ | 70 mg/kg | None reported | **Gastrointestinal Kidney, Ureter, or Bladder Liver** | RTECS |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Other changes<br>Ulcerated stomach<br>Other changes | |

**STOT - repeated 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 |
|---|---|---|---|---|---|
| Methenamine | Rat<br>NOAEL | 80 mg/kg | None reported | None reported | Vendor SDS |

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

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Methenamine | Rat<br>$TC_{Lo}$ | 350 mg/m³ | 21 days | **Kidney, Ureter, or Bladder**<br>Urine volume decreased or anuria<br>**Nutritional and Gross Metabolic**<br>Weight loss or decreased weight gain<br>**Biochemical**<br>Enzyme inhibition, induction, or change in blood or tissue levels (true cholinesterase) | RTECS |

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Human<br>$TC_{Lo}$ | 0.017 mg/L | 0.5 days | **Eye**<br>**Lungs, Thorax, or Respiration**<br>Lacrimation<br>Other changes | RTECS |

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

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic

| Chemical name | European Union |
|---|---|
| Formaldehyde | Muta. 2 |

***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 |
|---|---|---|---|---|---|---|
| Methenamine | Cytogenetic analysis | Human HeLa Cell | 1 mmol/L | None reported | Positive test result for mutagenicity | RTECS |

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

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

**Oral Exposure Route:**

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Methenamine | Dominant lethal test | Mouse | 25000 mg/kg | None reported | Positive test result for mutagenicity | RTECS |

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Formaldehyde | Micronucleus test | Human | .000985 mg/L | 8.5 years | Positive test result for mutagenicity | RTECS |

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

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | European Union |
|---|---|
| Formaldehyde | Carc. 1B |

***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 |
|---|---|---|---|---|---|
| Formaldehyde | Rat | 15 mg/L | 78 weeks | **Olfaction** Tumors | RTECS |

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

***Mixture*** No data available.

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

**Oral Exposure Route:**

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Rat $TC_{Lo}$ | 40 mg/L | 14 days | **Effects on Embryo or Fetus** Fetotoxicity (except death e.g. stunted fetus) | 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:** Test data reported below.

***Fish:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | 96 hours | *Pimephales promelas* | $LC_{50}$ | 22.6 mg/L | LOLI |

***Crustacea:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | 48 Hours | *Daphnia pulex* | $LC_{50}$ | 2 mg/L | LOLI |

**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 |
|---|---|
| Methenamine | Not PBT/vPvB |
| Formaldehyde | 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.

**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** 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**

## 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) This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

| Chemical name | Restricted substance per REACH Annex XVII | Substance subject to authorisation per REACH Annex XIV |
|---|---|---|
| Methenamine - 100-97-0 | 75<br>77 | |
| Formaldehyde - 50-00-0 | 72<br>77<br>28<br>75 | |

**Persistent Organic Pollutants** Not applicable

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

**Named dangerous substances per Seveso Directive (2012/18/EU)**

| Chemical name | Lower-tier requirements (tons) | Upper-tier requirements (tons) |
|---|---|---|
| Formaldehyde - 50-00-0 | 5 | 50 |

**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 |
|---|---|---|
| Methenamine<br>100-97-0 | RG 15bis,RG 74 | - |
| Formaldehyde<br>50-00-0 | RG 43,RG 43bis,RG 84<br>RG 84<br>RG 5,RG 20bis,RG 102<br>RG 2,RG 9,RG 14,RG 20,RG 34,RG 65 | - |

| Chemical name | Explosives | REPORTABLE EXPLOSIVES PRECURSORS (2019/1148) |
|---|---|---|
| Methenamine<br>100-97-0 | | Present |

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** | Does not comply |
| **IECSC** | Complies |
| **KECI** | Complies |
| **PICCS** | Does not comply |
| **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** 03-14-2007

**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 |
| 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 |

**Full text of H-Statements referred to under section 3**
H228 - Flammable solid
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H331 - Toxic if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H341 - Suspected of causing genetic defects
H350 - May cause cancer

**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** 03-14-2007 **Revision Date** 23-Mar-2026 **Print Date** 23-Mar-2026 **Version** 3.3

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

### 1.1. Product identifier

**Product Code(s)** 2897001

**Product Name** StablCal® Reference Suspension IV Amp 30 NTU

**Unique Formula Identifier (UFI)** 5HGX-GJEA-250N-KRQR

**Molecular weight** Not applicable

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

**Recommended Use** Water Analysis. Standard 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]***

| | |
|---|---|
| **Respiratory sensitisation** | Category 1 - (H334) |
| **Skin sensitisation** | Category 1 - (H317) |

### 2.2. Label elements

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

Contains Methenamine



**Signal word**
Danger

**Hazard statements**
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

EUH208 - Contains Formaldehyde May produce an allergic reaction.

**Precautionary statements**
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves and eye/face protection
P285 - In case of inadequate ventilation wear respiratory protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
P363 - Wash contaminated clothing before reuse
P501 - Dispose of contents/container to industrial incineration plant

### 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) |
|---|---|---|---|---|---|---|
| Methenamine | 100-97-0<br>202-905-8<br>612-101-00-2 | <10% | Flam. Sol. 2 - H228<br>Skin Sens. 1 - H317<br>Resp. Sens. 1 - H334 | | - | - |
| Sodium sulfate | 7757-82-6<br>231-820-9<br>- | <1% | Not classified | | - | - |
| Formaldehyde | 50-00-0<br>200-001-8<br>605-001-00-5 | <0.1% | Acute Tox. 4 - H302<br>Acute Tox. 3 - H311<br>Skin Corr. 1B - H314<br>Skin Sens. 1A - H317<br>Acute Tox. 2 - H330<br>Muta. 2 - H341<br>Carc. 1B - H350<br>STOT SE 3 - H335 | STOT SE 3 :H335: C>=5%<br>Skin Corr. 1B :H314: C>=25%<br>Skin Irrit. 2 :H315: 5%<=C<25%<br>Eye Irrit. 2 :H319: 5%<=C<25% | - | - |
| Diammonium sulfate | 7783-20-2<br>231-984-1<br>- | <0.01% | Not classified | | - | - |
| Formazin polymer | 1263063-17-7<br>-<br>- | <0.01% | 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 |
|---|---|---|---|---|---|
| Formaldehyde<br>50-00-0 | None reported | 270 mg/kg | None reported | None reported | None reported |

## Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures**

**General advice** Take off contaminated clothing and shoes immediately. Show this safety data sheet to the doctor in attendance.

| | |
|---|---|
| **Inhalation** | May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Get immediate medical attention. |
| **Eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor. |
| **Skin contact** | Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. |
| **Ingestion** | May produce an allergic reaction. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention. |
| **Self-protection of the first aider** | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information. |

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

| | |
|---|---|
| **Symptoms** | May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives. |

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

| | |
|---|---|
| **Note to doctors** | May cause sensitisation in susceptible persons. 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. Product is or contains a sensitiser. May cause sensitisation by inhalation and skin contact. May cause sensitisation by skin contact. |
| **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. Avoid breathing dust/fume/gas/mist/vapours/spray. Ensure adequate ventilation. Use personal protective equipment as required. 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** Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

**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. Ensure adequate ventilation. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash it before reuse.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work. Take off all contaminated clothing and wash it before reuse. Barrier creams may help to protect the exposed areas of skin.

**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 light. Keep out of the reach of children.

**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 |
|---|---|---|---|
| Formaldehyde<br>50-00-0 | TWA: 0.37 mg/m³;<br>TWA: 0.62 mg/m³;<br>TWA: 0.3 ppm; | TWA: 2 ppm<br>TWA: 2.5 mg/m³<br>STEL: 2 ppm | TWA: 0.3 ppm<br>TWA: 0.5 ppm<br>TWA: 0.37 mg/m³ |

| | | | |
|---|---|---|---|
| | TWA: 0.5 ppm;<br>STEL: 0.74 mg/m³;<br>STEL: 0.6 ppm;<br>DS | STEL: 2.5 mg/m³ | TWA: 0.62 mg/m³<br>STEL: 0.6 ppm<br>STEL: 0.738 mg/m³<br>STEL: 1.86 mg/m³<br>STEL: 1.5 ppm<br>Sens+ |

**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. 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. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work. Take off all contaminated clothing and wash it before reuse. Barrier creams may help to protect the exposed areas of skin.

**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** Milky white
**Odour** Odourless.

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | 0 °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** | > 100 | |
| **Autoignition temperature** | No data available | |
| **Decomposition temperature** | No data available | |
| **pH** | 7.85 | @ 20 °C |
| **Kinematic viscosity** | No data available | |
| **Dynamic viscosity** | No data available | |
| **Partition coefficient** | No data available | |
| **Vapour pressure** | 2.33 kPa at 20 °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**

**Molecular weight** Not applicable

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

**Corrosive to metals**

| | |
|---|---|
| **Steel Corrosion Rate** | No data available |
| **Aluminum Corrosion Rate** | No data available |

***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** Hazardous polymerisation does not occur.

**10.4. Conditions to avoid**

**Conditions to avoid** Extremes of temperature and direct sunlight.

**10.5. Incompatible materials**

**Incompatible materials** Oxidising agent.

**10.6. Hazardous decomposition products**

**Hazardous Decomposition Products** Ammonia. Carbon monoxide. Formaldehyde. nitrogen oxides. Sodium oxides. Sulphur oxides.

## 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:**

**Dermal Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Rabbit $LD_{50}$ | 270 mg/kg | None reported | None reported | GESTIS |

**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.

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

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

***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 |
|---|---|---|---|---|---|---|
| Methenamine | OECD Test 404: | Rabbit | 500 mg | 4 hours | Not corrosive or | ECHA |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Acute Dermal Corrosion/Irritation | | | | irritating to skin | |
| Formaldehyde | Draize Test | Human | 0.150 mg | 72 hours | Corrosive to skin | RTECS |

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

***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 |
|---|---|---|---|---|---|---|
| Methenamine | OECD Test 405: Acute Eye Corrosion/Irritation | Rabbit | 100 mg | 24 hours | Not corrosive or irritating to eyes | ECHA |
| Formaldehyde | Rinse Test | Human | 1 ppm | 6 minutes | Corrosive to eyes | RTECS |

**Respiratory or skin sensitisation**
May cause sensitisation by inhalation. May cause sensitisation by skin contact.

***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 |
|---|---|---|---|---|
| Methenamine | OECD Test No. 406: Skin Sensitisation | Guinea pig | Confirmed to be a skin sensitizer | ECHA |
| Formaldehyde | Patch test | Human | Confirmed to be a skin sensitizer | ERMA |

**Respiratory Sensitization Exposure Route:**

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|---|---|---|---|---|
| Methenamine | Based on human experience | Human | Confirmed to be a respiratory sensitizer | HSDB |
| Formaldehyde | IgE Specific Immune Response Test | Guinea pig | Confirmed to be a respiratory sensitizer | CICAD |

**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 |
|---|---|---|---|---|---|
| Formaldehyde | Human $LD_{Lo}$ | 70 mg/kg | None reported | **Gastrointestinal Kidney, Ureter, or Bladder Liver** | RTECS |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Other changes<br>Ulcerated stomach<br>Other changes | |

**STOT - repeated 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 |
|---|---|---|---|---|---|
| Methenamine | Rat<br>NOAEL | 80 mg/kg | None reported | None reported | Vendor SDS |

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

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Methenamine | Rat<br>$TC_{Lo}$ | 350 mg/m³ | 21 days | **Kidney, Ureter, or Bladder**<br>Urine volume decreased or anuria<br>**Nutritional and Gross Metabolic**<br>Weight loss or decreased weight gain<br>**Biochemical**<br>Enzyme inhibition, induction, or change in blood or tissue levels (true cholinesterase) | RTECS |

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Human<br>$TC_{Lo}$ | 0.017 mg/L | 0.5 days | **Eye**<br>**Lungs, Thorax, or Respiration**<br>Lacrimation<br>Other changes | RTECS |

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

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic

| Chemical name | European Union |
|---|---|
| Formaldehyde | Muta. 2 |

***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 |
|---|---|---|---|---|---|---|
| Methenamine | Cytogenetic analysis | Human HeLa Cell | 1 mmol/L | None reported | Positive test result for mutagenicity | RTECS |

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

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

**Oral Exposure Route:**

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Methenamine | Dominant lethal test | Mouse | 25000 mg/kg | None reported | Positive test result for mutagenicity | RTECS |

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---|---|---|---|---|
| Formaldehyde | Micronucleus test | Human | .000985 mg/L | 8.5 years | Positive test result for mutagenicity | RTECS |

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

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | European Union |
|---|---|
| Formaldehyde | Carc. 1B |

***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 |
|---|---|---|---|---|---|
| Formaldehyde | Rat | 15 mg/L | 78 weeks | **Olfaction** Tumors | RTECS |

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

***Mixture*** No data available.

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

**Oral Exposure Route:**

**Inhalation (Vapor) Exposure Route:**

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | Rat $TC_{Lo}$ | 40 mg/L | 14 days | **Effects on Embryo or Fetus** Fetotoxicity (except death e.g. stunted fetus) | 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:** Test data reported below.

***Fish:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | 96 hours | *Pimephales promelas* | $LC_{50}$ | 22.6 mg/L | LOLI |

***Crustacea:***

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---|---|---|---|---|
| Formaldehyde | 48 Hours | *Daphnia pulex* | $LC_{50}$ | 2 mg/L | LOLI |

**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 |
|---|---|
| Methenamine | Not PBT/vPvB |
| Formaldehyde | 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.

**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** 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**

## 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 |
|---|---|---|
| Methenamine - 100-97-0 | 75<br>77 | |
| Formaldehyde - 50-00-0 | 72<br>77<br>28<br>75 | |

**Persistent Organic Pollutants** Not applicable

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

**Named dangerous substances per Seveso Directive (2012/18/EU)**

| Chemical name | Lower-tier requirements (tons) | Upper-tier requirements (tons) |
|---|---|---|
| Formaldehyde - 50-00-0 | 5 | 50 |

**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 |
|---|---|---|
| Methenamine<br>100-97-0 | RG 15bis,RG 74 | - |
| Formaldehyde<br>50-00-0 | RG 43,RG 43bis,RG 84<br>RG 84<br>RG 5,RG 20bis,RG 102<br>RG 2,RG 9,RG 14,RG 20,RG 34,RG 65 | - |

| Chemical name | Explosives | REPORTABLE EXPLOSIVES PRECURSORS (2019/1148) |
|---|---|---|
| Methenamine<br>100-97-0 | | Present |

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** | Does not comply |
| **IECSC** | Complies |
| **KECI** | Complies |
| **PICCS** | Does not comply |
| **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** 03-14-2007

**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 |
| 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 |

**Full text of H-Statements referred to under section 3**
H228 - Flammable solid
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H331 - Toxic if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H341 - Suspected of causing genetic defects
H350 - May cause cancer

**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**