# SAFETY DATA SHEET

according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended

**Creation Date** 01-Feb-2010 **Revision Date** 09-Apr-2026 **Revision Number** 14

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THECOMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Description:** **Formaldehyde solution**
**Cat No. :** **F/1451/PB17, F/1451/25**
**Synonyms** Formalin; Formol; Methanal
**Molecular Formula** C H2 O

**Unique Formula Identifier (UFI)** **3YU0-K3VW-TX07-MH9J**

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

**Recommended Use** Laboratory chemicals
**Uses advised against** No Information available

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

**Company**

**UK entity/business name**
Fisher Scientific UK
Bishop Meadow Road, Loughborough,
Leicestershire LE11 5RG, United Kingdom

**EU entity/business name**
Thermo Fisher Scientific
Janssen Pharmaceuticalaan 3a
2440 Geel, Belgium

**E-mail address** begel.sdsdesk@thermofisher.com

### 1.4. Emergency telephone number

Chemtrec US: (800) 424-9300
Chemtrec EU: 001-703-527-3887
Tel: 01509 231166

**Poison Centre - Emergency information services**

**Ireland :** National Poisons Information Centre (NPIC) -
**01 809 2166** (8am-10pm, 7 days a week)
**Malta :** +356 2395 2000
**Cyprus :** +357 2240 5611

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

**GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567**

**Physical hazards**

Based on available data, the classification criteria are not met

**Health hazards**

| | |
|---|---|
| Acute oral toxicity | Category 3 (H301) |
| Acute dermal toxicity | Category 3 (H311) |
| Acute Inhalation Toxicity - Vapors | Category 3 (H331) |
| Skin Corrosion/Irritation | Category 1 B (H314) |
| Serious Eye Damage/Eye Irritation | Category 1 (H318) |
| Skin Sensitization | Category 1 (H317) |
| Germ Cell Mutagenicity | Category 2 (H341) |
| Carcinogenicity | Category 1B (H350) |
| Specific target organ toxicity - (single exposure) | Category 1 (H370) |

**Environmental hazards**
Based on available data, the classification criteria are not met

*Full text of Hazard Statements: see section 16*

## 2.2. Label elements

**Signal Word** **Danger**

**Hazard Statements**
H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H341 - Suspected of causing genetic defects
H350 - May cause cancer
H370 - Causes damage to organs
EUH071 - Corrosive to the respiratory tract
Combustible liquid

**Precautionary Statements**
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/physician

**Additional EU labelling**
Restricted to professional users

## 2.3. Other hazards

Lachrymator (substance which increases the flow of tears)

This product does not contain any known or suspected endocrine disruptors
Toxic to terrestrial vertebrates

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

| Component | CAS No | EC No | Weight % | GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567 |
|---|---|---|---|---|
| Formaldehyde | 50-00-0 | 200-001-8 | 35-41 | Acute Tox. 3 (H301)<br>Acute Tox. 3 (H311)<br>Acute Tox. 3 (H331)<br>Skin Corr. 1B (H314)<br>Eye Dam. 1 (H318)<br>Skin Sens. 1 (H317)<br>STOT SE 3 (H335)<br>Muta. 2 (H341)<br>Carc. 1B (H350)<br>EUH071 |
| Methyl alcohol | 67-56-1 | 200-659-6 | 5-14 | Flam. Liq. 2 (H225)<br>Acute Tox. 3 (H301)<br>Acute Tox. 3 (H311)<br>Acute Tox. 3 (H331)<br>STOT SE 1 (H370) |
| Water | 7732-18-5 | 231-791-2 | 40-46 | - |

| Component | Specific concentration limits (SCL's) | M-Factor | Component notes |
|---|---|---|---|
| Formaldehyde | Skin Corr. 1B :: C>=25%<br>Eye Irrit. 2 :: 5%<=C<25%<br>Skin Irrit. 2 :: 5%<=C<25%<br>STOT SE 3 :: C>=5%<25%<br>EUH071 :: C>=25% | - | - |
| Methyl alcohol | STOT Single Exp. 1 :: >= 10<br>STOT Single Exp. 2 :: 3 - < 10 | - | - |

| Component | ECHA (RAC) ATE (Oral) | ECHA (RAC) ATE (Dermal) | ECHA (RAC) ATE (Inhalation) |
|---|---|---|---|
| Formaldehyde | oral: ATE = 100 mg/kg bw | - | inhalation: ATE = 100 ppmV (gases) |

| Components | Reach Registration Number | |
|---|---|---|
| Formaldehyde | 01-2119488953-20 | |
| Methanol | 01-2119433307-44 | |

*Full text of Hazard Statements: see section 16*

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

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

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

| | |
|---|---|
| **Ingestion** | Do NOT induce vomiting. Call a physician or poison control center immediately. |
| **Inhalation** | If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required. |
| **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. |

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

Causes burns by all exposure routes. May cause allergic skin reaction. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

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

**Notes to Physician** Treat symptomatically. Symptoms may be delayed.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

**Suitable Extinguishing Media**
Water mist may be used to cool closed containers. $CO_2$, dry chemical, dry sand, alcohol-resistant foam.

**Extinguishing media which must not be used for safety reasons**
No information available.

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

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Combustible material. Containers may explode when heated.

**Hazardous Combustion Products**
Formic acid, Oxygen from the air can oxidize formaldehyde to formic acid, especially when heated, Carbon monoxide (CO), Carbon dioxide ($CO_2$).

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges.

### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

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

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition.

**Hygiene Measures**
Handle in accordance with good industrial hygiene and safety practice.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Keep away from heat, sparks and flame.

**Technical Rules for Hazardous Substances (TRGS) 510** Class 6.1C
**Storage Class (LGK) (Germany)**

### 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

**Exposure limits**
List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. **IRE -** 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

| Component | The United Kingdom | European Union | Ireland |
|---|---|---|---|
| Formaldehyde | STEL: 2 ppm 15 min<br>STEL: 2.5 mg/m³ 15 min<br>TWA: 2 ppm 8 hr<br>TWA: 2.5 mg/m³ 8 hr<br>Carc. | TWA: 0.37 mg/m³ (8h)<br>TWA: 0.62 mg/m³ (8h)<br>TWA: 0.3 ppm (8h)<br>TWA: 0.5 ppm (8h)<br>Skin<br>STEL: 0.74 mg/m³ (8h)<br>STEL: 0.6 ppm (8h) | TWA: 0.3 ppm 8 hr.<br>TWA: 0.5 ppm 8 hr. for the healthcare, funeral and embalming sectors until July 11, 2024<br>TWA: 0.37 mg/m³ 8 hr.<br>TWA: 0.62 mg/m³ 8 hr. for the healthcare, funeral and embalming sectors until July 11, 2024<br>STEL: 0.6 ppm 15 min<br>STEL: 0.738 mg/m³ 15 min<br>STEL: 0.62 mg/m³ 15 min |
| Methyl alcohol | WEL - TWA: 200 ppm TWA; 266 mg/m³ TWA | TWA: 200 ppm 8 hr<br>TWA: 260 mg/m³ 8 hr | TWA: 200 ppm 8 hr.<br>TWA: 260 mg/m³ 8 hr. |

| | | | |
|---|---|---|---|
| | WEL - STEL: 250 ppm STEL; 333 mg/m³ STEL | Skin | STEL: 600 ppm 15 min STEL: 780 mg/m³ 15 min Skin |

**Biological limit values**
List source(s):

**Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)**
See table for values

| Component | Acute effects local (Dermal) | Acute effects systemic (Dermal) | Chronic effects local (Dermal) | Chronic effects systemic (Dermal) |
|---|---|---|---|---|
| Formaldehyde 50-00-0 ( 35-41 ) | | | DNEL = 37µg/cm2 | DNEL = 240mg/kg bw/day |
| Methyl alcohol 67-56-1 ( 5-14 ) | | DNEL = 20mg/kg bw/day | | DNEL = 20mg/kg bw/day |

| Component | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|---|---|---|---|---|
| Formaldehyde 50-00-0 ( 35-41 ) | DNEL = 0.75mg/m³ | | DNEL = 0.375mg/m³ | DNEL = 9mg/m³ |
| Methyl alcohol 67-56-1 ( 5-14 ) | DNEL = 130mg/m³ | DNEL = 130mg/m³ | DNEL = 130mg/m³ | DNEL = 130mg/m³ |

**Predicted No Effect Concentration (PNEC)**
See values below.

| Component | Fresh water | Fresh water sediment | Water Intermittent | Microorganisms in sewage treatment | Soil (Agriculture) |
|---|---|---|---|---|---|
| Formaldehyde 50-00-0 ( 35-41 ) | PNEC = 0.44mg/L | PNEC = 2.3mg/kg sediment dw | PNEC = 4.44mg/L | PNEC = 0.19mg/L | PNEC = 0.2mg/kg soil dw |
| Methyl alcohol 67-56-1 ( 5-14 ) | PNEC = 20.8mg/L | PNEC = 77mg/kg sediment dw | PNEC = 1540mg/L | PNEC = 100mg/L | PNEC = 100mg/kg soil dw |

| Component | Marine water | Marine water sediment | Marine water intermittent | Food chain | Air |
|---|---|---|---|---|---|
| Formaldehyde 50-00-0 ( 35-41 ) | PNEC = 0.44mg/L | PNEC = 2.3mg/kg sediment dw | | | |
| Methyl alcohol 67-56-1 ( 5-14 ) | PNEC = 2.08mg/L | PNEC = 7.7mg/kg sediment dw | | | |

**8.2. Exposure controls**

**Engineering Measures**
Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas.
Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

**Personal protective equipment**

**Eye Protection** Goggles (European standard - EN 166)

**Hand Protection** Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments |
|---|---|---|---|---|
| Viton (R) | > 480 minutes | 0.7 mm | EN 374 | As tested under EN374-3 Determination of Resistance to Permeation by Chemicals |
| Nitrile rubber | > 360 minutes | 15 - 22 mil | | |
| Butyl rubber | > 240 minutes | 25 -35 mil | | |
| Neoprene gloves | > 60 minutes | 18 - 24 mil | | |

**Skin and body protection** Long sleeved clothing.

Inspect gloves before use.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)
Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.
Remove gloves with care avoiding skin contamination.

**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Large scale/emergency use** Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
**Recommended Filter type:** Organic gases and vapours filter Type A Brown conforming to EN14387

**Small scale/Laboratory use** Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
**Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141
When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls** Prevent product from entering drains. Do not allow material to contaminate ground water system.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

| | | |
|---|---|---|
| **Physical State** | Liquid | |
| **Appearance** | Colorless | |
| **Odor** | Irritating pungent | |
| **Odor Threshold** | 0.8 - 1 ppm | |
| **Melting Point/Range** | -15 °C / 5 °F | |
| **Softening Point** | No data available | |
| **Boiling Point/Range** | 97 °C / 206.6 °F | @ 760 mmHg |
| **Flammability (liquid)** | Flammable Combustible liquid | On basis of test data |
| **Flammability (solid,gas)** | Not applicable | Liquid |
| **Explosion Limits** | **Lower** 7 vol%<br>**Upper** 73 vol% | |
| **Flash Point** | 63 - 75 °C / 145.4 - 167 °F | **Method -** No information available |
| **Autoignition Temperature** | 424 °C / 795.2 °F | |
| **Decomposition Temperature** | > 150°C | |
| **pH** | 3-4.2 | |
| **Viscosity** | 1.0 mPas @ 20°C | |
| **Water Solubility** | Miscible | |
| **Solubility in other solvents** | No information available | |

**Partition Coefficient (n-octanol/water)**

| **Component** | **log Pow** |
|---|---|
| Formaldehyde | -0.35 |

| | | |
|---|---|---|
| Methyl alcohol | -0.74 | |
| **Vapor Pressure** | 2 mbar @ 20 °C | |
| **Density / Specific Gravity** | 1.083 | |
| **Bulk Density** | Not applicable | Liquid |
| **Vapor Density** | > 1.0 | (Air = 1.0) |
| **Particle characteristics** | Not applicable (liquid) | |

**9.2. Other information**

| | |
|---|---|
| **Molecular Formula** | C H2 O |
| **Molecular Weight** | 30.02 |
| **Explosive Properties** | explosive air/vapour mixtures possible |

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

None known, based on information available

**10.2. Chemical stability**

Stable under normal conditions. Stabilized with Methanol. Hazardous polymerization may occur upon depletion of inhibitor.

**10.3. Possibility of hazardous reactions**

| | |
|---|---|
| **Hazardous Polymerization** | Hazardous polymerization may occur upon depletion of inhibitor. |
| **Hazardous Reactions** | None under normal processing. |

**10.4. Conditions to avoid**

Temperatures above 65°C. Keep away from open flames, hot surfaces and sources of ignition.

**10.5. Incompatible materials**

Strong oxidizing agents. Potassium permanganate. Peroxides. Perchloric acid + aniline. Strong bases. Sodium hydroxide. Ammonia. Hydroxides. Sodium bisulfite. Strong acids. Hydrogen chloride. Isocyanates. Acid anhydrides. Magnesium carbonates. Iodine.

**10.6. Hazardous decomposition products**

Formic acid. Oxygen from the air can oxidize formaldehyde to formic acid, especially when heated. Carbon monoxide (CO). Carbon dioxide ($CO_2$).

## SECTION 11: TOXICOLOGICAL INFORMATION

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

**Product Information**

**(a) acute toxicity;**

| | |
|---|---|
| **Oral** | Category 3 |
| **Dermal** | Category 3 |
| **Inhalation** | Category 3 |

**Toxicology data for the components**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Formaldehyde | 500 mg/kg (Rat) | LD50 = 270 mg/kg (Rabbit) | 0.578 mg/L (Rat) 4 h |
| Methyl alcohol | LD50 = 1187 – 2769 mg/kg (Rat) | LD50 = 17100 mg/kg ( Rabbit ) | LC50 = 128.2 mg/L ( Rat ) 4 h |

| | | | |
|---|---|---|---|
| Water | - | - | - |

| Component | ECHA (RAC) ATE (Oral) | ECHA (RAC) ATE (Dermal) | ECHA (RAC) ATE (Inhalation) |
|---|---|---|---|
| Formaldehyde | oral: ATE = 100 mg/kg bw | - | inhalation: ATE = 100 ppmV (gases) |

**(b) skin corrosion/irritation;** Category 1 B

**(c) serious eye damage/irritation;** Category 1

**(d) respiratory or skin sensitization;**

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

**Skin** Category 1

| Component | Test method | Test species | Study result |
|---|---|---|---|
| Formaldehyde<br>50-00-0 ( 35-41 ) | Skin sensitization<br>Test method Patch Test<br><br>Respiratory sensitization<br>in vitro | Man<br>guinea pig | Sensitizer<br>Sensitization |
| Methyl alcohol<br>67-56-1 ( 5-14 ) | OECD Test Guideline 406<br>Guinea Pig Maximisation Test (GPMT) | guinea pig | non-sensitising |

**(e) germ cell mutagenicity;** Category 2

**(f) carcinogenicity;** Category 1B

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

| Component | EU | UK | Germany | IARC |
|---|---|---|---|---|
| Formaldehyde | Carc Cat. 1B | Cat 3 | | Group 1 |

**(g) reproductive toxicity;** No data available

| Component | Test method | Test species / Duration | Study result |
|---|---|---|---|
| Methyl alcohol<br>67-56-1 ( 5-14 ) | OECD Test Guideline 416 | Rat / Inhalation<br>2 Generation | NOAEC =<br>1.3 mg/l (air) |

**(h) STOT-single exposure;** Category 1
Category 3

**Results / Target organs** Respiratory system, Optic nerve, Central nervous system (CNS).

**(i) STOT-repeated exposure;** No data available

**Target Organs** None known.

**(j) aspiration hazard;** Based on available data, the classification criteria are not met

**Symptoms / effects,both acute and delayed** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

**11.2. Information on other hazards**

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**

**Ecotoxicity effects** Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|---|---|---|---|
| Formaldehyde | Leuciscus idus: LC50 = 15 mg/L 96h | EC50 = 20 mg/L 96h<br>EC50 = 2 mg/L 48h | EC50 (72h) = 4.89 mg/L (Desmodesmus subspicatus) |
| Methyl alcohol | Pimephales promelas: LC50 > 10000 mg/L 96h | EC50 > 10000 mg/L 24h | |

| Component | Microtox | M-Factor |
|---|---|---|
| Methyl alcohol | EC50 = 39000 mg/L 25 min<br>EC50 = 40000 mg/L 15 min<br>EC50 = 43000 mg/L 5 min | |

**12.2. Persistence and degradability** Not applicable for mixtures

**Persistence** Soluble in water, Persistence is unlikely, based on information available, Miscible with water.

| Component | Degradability |
|---|---|
| Formaldehyde<br>50-00-0 ( 35-41 ) | Readily biodegradable (OECD guideline 301A, 301C and 301D) under aerobic and anaerobic conditions. |
| Methyl alcohol<br>67-56-1 ( 5-14 ) | DT50 ~ 17.2d<br>>94% after 20d |

**12.3. Bioaccumulative potential** Bioaccumulation is unlikely

| Component | log Pow | Bioconcentration factor (BCF) |
|---|---|---|
| Formaldehyde | -0.35 | No data available |
| Methyl alcohol | -0.74 | <10 dimensionless |

**12.4. Mobility in soil** The product is water soluble, and may spread in water systems . Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

**12.5. Results of PBT and vPvB assessment** No data available for assessment.

**12.6. Endocrine disrupting properties**

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

**12.7. Other adverse effects**

**Persistent Organic Pollutant** This product does not contain any known or suspected substance

**Ozone Depletion Potential** This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

| | |
|---|---|
| **Waste from Residues/Unused Products** | Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. |
| **Contaminated Packaging** | Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition. |
| **European Waste Catalogue (EWC)** | According to the European Waste Catalog, Waste Codes are not product specific, but application specific. |
| **Other Information** | Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. |

## SECTION 14: TRANSPORT INFORMATION

**IMDG/IMO**

| | |
|---|---|
| **14.1. UN number** | UN2209 |
| **14.2. UN proper shipping name** | FORMALDEHYDE SOLUTION |
| **14.3. Transport hazard class(es)** | 8 |
| **14.4. Packing group** | III |

**ADR**

| | |
|---|---|
| **14.1. UN number** | UN2209 |
| **14.2. UN proper shipping name** | FORMALDEHYDE SOLUTION |
| **14.3. Transport hazard class(es)** | 8 |
| **14.4. Packing group** | III |

**IATA**

| | |
|---|---|
| **14.1. UN number** | UN2209 |
| **14.2. UN proper shipping name** | FORMALDEHYDE SOLUTION |
| **14.3. Transport hazard class(es)** | 8 |
| **14.4. Packing group** | III |

| | |
|---|---|
| **14.5. Environmental hazards** | No hazards identified |
| **14.6. Special precautions for user** | No special precautions required. |
| **14.7. Maritime transport in bulk according to IMO instruments** | Not applicable, packaged goods |

## SECTION 15: REGULATORY INFORMATION

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

**International Inventories**

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component | CAS No | EINECS | ELINCS | NLP | IECSC | TCSI | KECL | ENCS | ISHL |
|---|---|---|---|---|---|---|---|---|---|
| Formaldehyde | 50-00-0 | 200-001-8 | - | - | X | X | KE-17074 | X | X |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Methyl alcohol | 67-56-1 | 200-659-6 | - | - | X | X | KE-23193 | X | X |
| Water | 7732-18-5 | 231-791-2 | - | - | X | X | KE-35400 | X | - |

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---|---|---|---|---|---|---|---|---|
| Formaldehyde | 50-00-0 | X | ACTIVE | X | - | X | X | X |
| Methyl alcohol | 67-56-1 | X | ACTIVE | X | - | X | X | X |
| Water | 7732-18-5 | X | ACTIVE | X | - | X | X | X |

**Legend:** X - Listed '-' - Not Listed **KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

### Authorisation/Restrictions according to EU REACH

| Component | CAS No | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---|---|---|---|---|
| Formaldehyde | 50-00-0 | - | Use restricted. See entry 72. (see link for restriction details) Use restricted. See entry 77. (see link for restriction details) Use restricted. See entry 28. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details) | - |
| Methyl alcohol | 67-56-1 | - | Use restricted. See entry 69. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details) | - |
| Water | 7732-18-5 | - | - | - |

**REACH links**
*https://echa.europa.eu/substances-restricted-under-reach*

### Seveso III Directive (2012/18/EC)

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|---|---|---|---|
| Formaldehyde | 50-00-0 | 5 tonne | 50 tonne |
| Methyl alcohol | 67-56-1 | 500 tonne | 5000 tonne |
| Water | 7732-18-5 | Not applicable | Not applicable |

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

| Component | CAS No | OECD HPV | Restriction of Hazardous Substances (RoHS) | Basel Convention (Hazardous Waste) |
|---|---|---|---|---|
| Formaldehyde | 50-00-0 | Listed | Not applicable | Not applicable |
| Methyl alcohol | 67-56-1 | Listed | Not applicable | Not applicable |
| Water | 7732-18-5 | Listed | Not applicable | Not applicable |

### Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and

**import of dangerous chemicals**
Not applicable

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**
Not applicable

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 2000/39/EC establishing a first list of indicative occupational exposure limit values
Take note of Dir 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations

**National Regulations**

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

**WGK Classification** Water endangering class = 3 (self classification)

| Component | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|---|---|---|
| Formaldehyde | WGK 3 | Krebserzeugende Stoffe - : 5 mg/m³ (Massenkonzentration) |
| Methyl alcohol | WGK 2 | Class I : 20 mg/m³ (Massenkonzentration) |

| Component | France - INRS (Tables of occupational diseases) |
|---|---|
| Formaldehyde | Tableaux des maladies professionnelles (TMP) - RG 43 |
| Methyl alcohol | Tableaux des maladies professionnelles (TMP) - RG 84 |

| Component | Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81) | Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC) | Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure |
|---|---|---|---|
| Formaldehyde<br>50-00-0 ( 35-41 ) | | Group I | |
| Methyl alcohol<br>67-56-1 ( 5-14 ) | Prohibited and Restricted Substances | Group I | |

**15.2. Chemical safety assessment**

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

## SECTION 16: OTHER INFORMATION

**Full text of H-Statements referred to under sections 2 and 3**
H225 - Highly flammable liquid and vapor
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H331 - Toxic if inhaled
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H341 - Suspected of causing genetic defects
H350 - May cause cancer
H370 - Causes damage to organs
EUH071 - Corrosive to the respiratory tract

**Legend**

**CAS** - Chemical Abstracts Service
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**IECSC** - Chinese Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**ENCS** - Japanese Existing and New Chemical Substances
**AICS** - Australian Inventory of Chemical Substances
**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit
**ACGIH** - American Conference of Governmental Industrial Hygienists
**DNEL** - Derived No Effect Level
**RPE** - Respiratory Protective Equipment
**LC50** - Lethal Concentration 50%
**NOEC** - No Observed Effect Concentration
**PBT** - Persistent, Bioaccumulative, Toxic
**TWA** - Time Weighted Average
**IARC** - International Agency for Research on Cancer
Predicted No Effect Concentration (PNEC)
**LD50** - Lethal Dose 50%
**EC50** - Effective Concentration 50%
**POW** - Partition coefficient Octanol:Water
**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road
**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code
**OECD** - Organisation for Economic Co-operation and Development
**BCF** - Bioconcentration factor
**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association
**MARPOL** - International Convention for the Prevention of Pollution from Ships
**ATE** - Acute Toxicity Estimate
**VOC** - (Volatile Organic Compound)

**Key literature references and sources for data**
https://echa.europa.eu/information-on-chemicals
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

| | |
|---|---|
| **Physical hazards** | On basis of test data |
| **Health Hazards** | Calculation method |
| **Environmental hazards** | Calculation method |

**Training Advice**
Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.
Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.
First aid for chemical exposure, including the use of eye wash and safety showers.
Chemical incident response training.
Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

| | |
|---|---|
| **Creation Date** | 01-Feb-2010 |
| **Revision Date** | 09-Apr-2026 |
| **Revision Summary** | SDS sections updated, 2, 3, 11, 12. |

## This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

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**Disclaimer**

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# End of Safety Data Sheet