# SAFETY DATA SHEET

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

**Creation Date** 26-Nov-2010 **Revision Date** 17-Jul-2025 **Revision Number** 13

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

### 1.1. Product identifier

**Product Description:** **Aqualine™ Electrolyte CG (Chlorine free catholyte for general use)**
**Cat No. :** **K/2560/04**
**Synonyms** Karl Fischer reagent

**Unique Formula Identifier (UFI)** **W1XH-H26E-9X0T-VT7P**

### 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

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

**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**

Flammable liquids Category 2 (H225)

**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 2 (H315) |
| Serious Eye Damage/Eye Irritation | Category 2 (H319) |
| 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

Contains Methanol, 2,4,6-Collidine, Iodine

**Signal Word** **Danger**

**Hazard Statements**
H225 - Highly flammable liquid and vapor
H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H370 - Causes damage to organs

**Precautionary Statements**
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
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
P311 - Call a POISON CENTER or doctor/physician

## 2.3. Other hazards

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

# 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 |
|---|---|---|---|---|
| Methyl alcohol | 67-56-1 | 200-659-6 | 92.1 | Flam. Liq. 2 (H225)<br>Acute Tox. 3 (H301)<br>Acute Tox. 3 (H311)<br>Acute Tox. 3 (H331)<br>STOT SE 1 (H370) |
| 2,4,6-Collidine | 108-75-8 | EEC No. 203-613-3 | 4.5 | Flam Liq. 3 (H226)<br>Acute Tox. 4 (H302)<br>Acute Tox. 3 (H311)<br>Acute Tox. 4 (H332)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335) |
| Sulfur dioxide | 7446-09-5 | EEC No. 231-195-2 | 2.8 | Press. Gas (H280)<br>Skin Corr. 1B (H314)<br>Eye Dam. 1 (H318)<br>Acute Tox. 3 (H331)<br>STOT SE 1 (H370) |
| Iodine | 7553-56-2 | 231-442-4 | 0.6 | Acute Tox. 4 (H302)<br>Acute Tox. 4 (H312)<br>Acute Tox. 4 (H332)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335)<br>STOT RE 1 (H372)<br>Aquatic Acute 1 (H400) |

| Component | Specific concentration limits (SCL's) | M-Factor | Component notes |
|---|---|---|---|
| Methyl alcohol | STOT Single Exp. 1 :: >= 10<br>STOT Single Exp. 2 :: 3 - < 10 | - | - |
| Iodine | - | 1 | - |

| Components | Reach Registration Number | |
|---|---|---|
| Methanol | 01-2119433307-44 | |
| Sulfur dioxide | 01-2119485028-34 | |
| Iodine | 01-2119485285-30 | |

*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** Remove to fresh air. 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. 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

None reasonably foreseeable. 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: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

### 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**
Use:. Dry chemical. Carbon dioxide ($CO_2$). Water spray. Alcohol resistant foam. Dike fire-control water for later disposal. Water mist may be used to cool closed containers.

**Extinguishing media which must not be used for safety reasons**
Do not use a solid water stream as it may scatter and spread fire.

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

Flammable. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Vapors may travel to source of ignition and flash back. Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Vapors may form explosive mixtures with air.

**Hazardous Combustion Products**
Carbon monoxide (CO), Carbon dioxide ($CO_2$), Hydrogen iodide, Formaldehyde, Nitrogen oxides (NOx), Sulfur oxides.

### 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. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

### 6.2. Environmental precautions

Should not be released into the environment.

### 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. Use

spark-proof tools and explosion-proof equipment.

### 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. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

**Hygiene Measures**
When using do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

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

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

**Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)** Class 3

### 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 |
|---|---|---|---|
| Methyl alcohol | WEL - TWA: 200 ppm TWA; 266 mg/m³ TWA<br>WEL - STEL: 250 ppm STEL; 333 mg/m³ STEL | TWA: 200 ppm 8 hr<br>TWA: 260 mg/m³ 8 hr<br>Skin | TWA: 200 ppm 8 hr.<br>TWA: 260 mg/m³ 8 hr.<br>STEL: 600 ppm 15 min<br>STEL: 780 mg/m³ 15 min<br>Skin |
| Sulfur dioxide | STEL: 1 ppm 15 min<br>STEL: 2.7 mg/m³ 15 min<br>TWA: 0.5 ppm 8 hr<br>TWA: 1.3 mg/m³ 8 hr | TWA: 1.3 mg/m³ (8h)<br>TWA: 0.5 ppm (8h)<br>STEL: 2.7 mg/m³ (15min)<br>STEL: 1 ppm (15min) | TWA: 0.5 ppm 8 hr.<br>TWA: 1.3 mg/m³ 8 hr.<br>STEL: 2.7 mg/m³ 15 min<br>STEL: 1 ppm 15 min |
| Iodine | STEL: 0.1 ppm 15 min<br>STEL: 1.1 mg/m³ 15 min | | TWA: 0.01 ppm 8 hr. inhalable fraction and vapour<br>TWA: 0.01 mg/m³ 8 hr.<br>STEL: 0.1 ppm 15 min |

**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) |
|---|---|---|---|---|
| Methyl alcohol 67-56-1 ( 92.1 ) | | DNEL = 20mg/kg bw/day | | DNEL = 20mg/kg bw/day |
| Iodine 7553-56-2 ( 0.6 ) | | | | DNEL = 0.01mg/kg bw/day |

| Component | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|---|---|---|---|---|
| Methyl alcohol 67-56-1 ( 92.1 ) | DNEL = 130mg/m³ | DNEL = 130mg/m³ | DNEL = 130mg/m³ | DNEL = 130mg/m³ |
| Sulfur dioxide 7446-09-5 ( 2.8 ) | DNEL = 2.7mg/m³ | | DNEL = 2.7mg/m³ | |
| Iodine 7553-56-2 ( 0.6 ) | | | | DNEL = 0.07mg/m³ |

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

| Component | Fresh water | Fresh water sediment | Water Intermittent | Microorganisms in sewage treatment | Soil (Agriculture) |
|---|---|---|---|---|---|
| Methyl alcohol 67-56-1 ( 92.1 ) | PNEC = 20.8mg/L | PNEC = 77mg/kg sediment dw | PNEC = 1540mg/L | PNEC = 100mg/L | PNEC = 100mg/kg soil dw |
| Iodine 7553-56-2 ( 0.6 ) | PNEC = 18.13µg/L | PNEC = 3.99mg/kg sediment dw | | PNEC = 11mg/L | PNEC = 5.95mg/kg soil dw |

| Component | Marine water | Marine water sediment | Marine water intermittent | Food chain | Air |
|---|---|---|---|---|---|
| Methyl alcohol 67-56-1 ( 92.1 ) | PNEC = 2.08mg/L | PNEC = 7.7mg/kg sediment dw | | | |
| Iodine 7553-56-2 ( 0.6 ) | PNEC = 60.01µg/L | PNEC = 20.22mg/kg sediment dw | | | |

**8.2. Exposure controls**

**Engineering Measures**
Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.
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** Tight sealing safety goggles Goggles (European standard - EN 166)

**Hand Protection** Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments |
|---|---|---|---|---|
| Butyl rubber | > 480 minutes | 0.35 mm | Level 6 | As tested under EN374-3 Determination of |
| Viton (R) | > 480 minutes | 0.70 mm | EN 374 | Resistance to Permeation by Chemicals |
| Neoprene gloves | < 60 minutes | 0.45 mm | | |
| Nitrile rubber | < 30 minutes | 0.38 mm | | |

| | |
|---|---|
| **Skin and body protection** | Antistatic boots. Wear fire/flame resistant/retardant clothing. Impervious gloves. |

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.<br>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<br>**Recommended Filter type:** low boiling organic solvent Type AX Brown conforming to EN371 |
| **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.<br>**Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141<br>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. Local authorities should be advised if significant spillages cannot be contained. |

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

| | | |
|---|---|---|
| **Physical State** | Liquid | |
| **Appearance** | | |
| **Odor** | Alcohol-like | |
| **Odor Threshold** | No data available | |
| **Melting Point/Range** | No data available | |
| **Softening Point** | No data available | |
| **Boiling Point/Range** | > 64 °C / > 147.2 °F | |
| **Flammability (liquid)** | Highly flammable | On basis of test data |
| **Flammability (solid,gas)** | Not applicable | Liquid |
| **Explosion Limits** | **Lower** ~6.0 vol %<br>**Upper** ~36.0 vol % | |
| **Flash Point** | 11 °C / 51.8 °F | **Method -** Estimated |
| **Autoignition Temperature** | 464 °C / 867.2 °F | |
| **Decomposition Temperature** | No data available | |
| **pH** | No information available | |
| **Viscosity** | No data available | |
| **Water Solubility** | Miscible | |
| **Solubility in other solvents** | No information available | |

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

| **Component** | **log Pow** |
|---|---|
| Methyl alcohol | -0.74 |
| Iodine | 2.49 |

| | | |
|---|---|---|
| **Vapor Pressure** | No information available | |
| **Density / Specific Gravity** | 0.83 | Calculated |
| **Bulk Density** | Not applicable | Liquid |
| **Vapor Density** | No data available | (Air = 1.0) |

**Particle characteristics** Not applicable (liquid)

**9.2. Other information**

**Explosive Properties** Vapors may form explosive mixtures with air
**Evaporation Rate** No information available

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

None known, based on information available

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Hazardous Polymerization** Hazardous polymerization does not occur.
**Hazardous Reactions** None under normal processing.

**10.4. Conditions to avoid**

Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.

**10.5. Incompatible materials**

Strong oxidizing agents. Strong reducing agents.

**10.6. Hazardous decomposition products**

Carbon monoxide (CO). Carbon dioxide ($CO_2$). Hydrogen iodide. Formaldehyde. Nitrogen oxides (NOx). Sulfur oxides.

## 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 |
|---|---|---|---|
| Methyl alcohol | LD50 = 1187 – 2769 mg/kg (Rat) | LD50 = 17100 mg/kg ( Rabbit ) | LC50 = 128.2 mg/L ( Rat ) 4 h |
| 2,4,6-Collidine | 400 mg/kg ( Rat ) | 1000 mg/kg ( Guinea Pig ) | - |
| Sulfur dioxide | - | - | Per CGA P-20: 2500 ppm/1hr ( Rat ) |
| Iodine | 315 mg/kg ( Rat ) | 1425 mg/kg ( Rabbit ) | 4.588 mg/L 4h ( Rat ) |

**(b) skin corrosion/irritation;** Category 2

**(c) serious eye damage/irritation;** Category 2

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

**Respiratory** No data available
**Skin** No data available

| Component | Test method | Test species | Study result |
|---|---|---|---|
| Methyl alcohol<br>67-56-1 ( 92.1 ) | OECD Test Guideline 406<br>Guinea Pig Maximisation Test (GPMT) | guinea pig | non-sensitising |
| Iodine<br>7553-56-2 ( 0.6 ) | OECD Test Guideline 429<br>Local Lymph Node Assay | mouse | non-sensitising |

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;** No data available

There are no known carcinogenic chemicals in this product

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

| Component | Test method | Test species / Duration | Study result |
|---|---|---|---|
| Methyl alcohol<br>67-56-1 ( 92.1 ) | OECD Test Guideline 416 | Rat / Inhalation<br>2 Generation | NOAEC =<br>1.3 mg/l (air) |

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

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

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

**Target Organs** None known.

**(j) aspiration hazard;** No data available

**Symptoms / effects,both acute and delayed** 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. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

### 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 a substance which is:. Very toxic to aquatic organisms.

| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|---|---|---|---|
| Methyl alcohol | Pimephales promelas: LC50 > 10000 mg/L 96h | EC50 > 10000 mg/L 24h | |
| Iodine | LC50 = 1.67 mg/L 96h | EC50 = 0.55 mg/L 48h | EC50 = 0.13 mg/L 72h |

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

| | | |
|---|---|---|
| | EC50 = 43000 mg/L 5 min | |
| Iodine | EC50 = 280 mg/L 3h | 1 |

**12.2. Persistence and degradability**

**Persistence** Persistence is unlikely, based on information available.

| Component | Degradability |
|---|---|
| Methyl alcohol<br>67-56-1 ( 92.1 ) | DT50 ~ 17.2d<br>>94% after 20d |

**Degradation in sewage treatment plant** Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**12.3. Bioaccumulative potential** Bioaccumulation is unlikely

| Component | log Pow | Bioconcentration factor (BCF) |
|---|---|---|
| Methyl alcohol | -0.74 | <10 dimensionless |
| Iodine | 2.49 | No data available |

**12.4. Mobility in soil** The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces Will likely be mobile in the environment due to its volatility. Disperses rapidly in air

**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. Can be landfilled or incinerated, when in compliance with local regulations.

## SECTION 14: TRANSPORT INFORMATION

**IMDG/IMO**

| | |
|---|---|
| **14.1. UN number** | UN1992 |
| **14.2. UN proper shipping name** | FLAMMABLE LIQUID, TOXIC, N.O.S. |
| **Technical Shipping Name** | (Contains methanol and 2,4,6-collidine) |
| **14.3. Transport hazard class(es)** | 3 |
| **Subsidiary Hazard Class** | 6.1 |
| **14.4. Packing group** | II |

**ADR**

| | |
|---|---|
| **14.1. UN number** | UN1992 |
| **14.2. UN proper shipping name** | FLAMMABLE LIQUID, TOXIC, N.O.S. |
| **Technical Shipping Name** | (Contains methanol and 2,4,6-collidine) |
| **14.3. Transport hazard class(es)** | 3 |
| **Subsidiary Hazard Class** | 6.1 |
| **14.4. Packing group** | II |

**IATA**

| | |
|---|---|
| **14.1. UN number** | UN1992 |
| **14.2. UN proper shipping name** | FLAMMABLE LIQUID, TOXIC, N.O.S. |
| **Technical Shipping Name** | (Contains methanol and 2,4,6-collidine) |
| **14.3. Transport hazard class(es)** | 3 |
| **Subsidiary Hazard Class** | 6.1 |
| **14.4. Packing group** | II |

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Methyl alcohol | 67-56-1 | 200-659-6 | - | - | X | X | KE-23193 | X | X |
| 2,4,6-Collidine | 108-75-8 | 203-613-3 | - | - | X | X | - | X | X |
| Sulfur dioxide | 7446-09-5 | 231-195-2 | - | - | X | X | KE-32567 | X | X |
| Iodine | 7553-56-2 | 231-442-4 | - | - | X | X | KE-21023 | X | - |

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---|---|---|---|---|---|---|---|---|
| Methyl alcohol | 67-56-1 | X | ACTIVE | X | - | X | X | X |
| 2,4,6-Collidine | 108-75-8 | X | ACTIVE | X | - | X | X | X |
| Sulfur dioxide | 7446-09-5 | X | ACTIVE | X | - | X | X | X |
| Iodine | 7553-56-2 | 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) |
|---|---|---|---|---|
| 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) | - |
| 2,4,6-Collidine | 108-75-8 | - | - | - |
| Sulfur dioxide | 7446-09-5 | - | Use restricted. See entry 75. (see link for restriction details) | - |
| Iodine | 7553-56-2 | - | Use restricted. See entry 75. (see link for restriction details) | - |

**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 |
|---|---|---|---|
| Methyl alcohol | 67-56-1 | 500 tonne | 5000 tonne |
| 2,4,6-Collidine | 108-75-8 | Not applicable | Not applicable |
| Sulfur dioxide | 7446-09-5 | Not applicable | Not applicable |
| Iodine | 7553-56-2 | 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

**National Regulations**

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

**WGK Classification** Water endangering class = 2 (self classification)

| Component | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|---|---|---|
| Methyl alcohol | WGK 2 | Class I : 20 mg/m³ (Massenkonzentration) |
| Sulfur dioxide | WGK1 | |
| Iodine | WGK2 | |

| Component | France - INRS (Tables of occupational diseases) |
|---|---|

| | |
|---|---|
| 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 |
|---|---|---|---|
| Methyl alcohol<br>67-56-1 ( 92.1 ) | Prohibited and Restricted Substances | Group I | |
| Iodine<br>7553-56-2 ( 0.6 ) | Prohibited and Restricted Substances | | |

**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
H226 - Flammable liquid and vapor
H301 - Toxic if swallowed
H302 - Harmful if swallowed
H311 - Toxic in contact with skin
H312 - Harmful in contact with skin
H331 - Toxic if inhaled
H332 - Harmful if inhaled
H314 - Causes severe skin burns and eye damage
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H370 - Causes damage to organs
H372 - Causes damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life

**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

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association
**MARPOL** - International Convention for the Prevention of Pollution from Ships

**OECD** - Organisation for Economic Co-operation and Development
**ATE** - Acute Toxicity Estimate
**BCF** - Bioconcentration factor
**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.
First aid for chemical exposure, including the use of eye wash and safety showers.
Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.
Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

| | |
|---|---|
| **Creation Date** | 26-Nov-2010 |
| **Revision Date** | 17-Jul-2025 |
| **Revision Summary** | SDS sections updated, 3, 5, 8, 10, 11. |

## 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