



## SAFETY DATA SHEET

### Halt GX

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

##### 1.1. Product identifier

Product name Halt GX

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

Identified uses Embalming Chemical

Uses advised against No specific uses advised against are identified.

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

Supplier The MazWell Group Ltd.  
Units 11/14-15 Ardglan Industrial Estate,  
Whitchurch, Hampshire,  
RG28 7BB, United Kingdom  
+44 (0)1256-893883  
+44 (0)1256-893868  
enquiries@themazwellgroup.com

##### 1.4. Emergency telephone number

Emergency telephone +44 (0)1256 893883 (Mon- Fri 9:00 am - 4:30 pm)

National emergency telephone number National Poisons Information Centre (NPIC):  
+353 (0) 1 809 2166 (Public poisons information line - 8am - 10pm daily)  
+353 (0) 1 809 2566 (Healthcare Professionals only)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 STOT SE 3 - H335

Environmental hazards Aquatic Chronic 3 - H412

##### 2.2. Label elements

###### Hazard pictograms



Signal word

Danger

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<b>Hazard statements</b>	<p>H226 Flammable liquid and vapour.  H302+H332 Harmful if swallowed or if inhaled.  H314 Causes severe skin burns and eye damage.  H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  H317 May cause an allergic skin reaction.  H335 May cause respiratory irritation.  H412 Harmful to aquatic life with long lasting effects.</p>
<b>Precautionary statements</b>	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  P260 Do not breathe vapour/ spray.  P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  P302+P352 IF ON SKIN: Wash with plenty of water.  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/ doctor.  P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>Contains</b>	Glutaral
<b>Supplementary precautionary statements</b>	<p>P240 Ground and bond container and receiving equipment.  P241 Use explosion-proof electrical equipment.  P242 Use non-sparking tools.  P243 Take action to prevent static discharges.  P261 Avoid breathing vapour/ spray.  P264 Wash contaminated skin thoroughly after handling.  P270 Do not eat, drink or smoke when using this product.  P271 Use only outdoors or in a well-ventilated area.  P272 Contaminated work clothing should not be allowed out of the workplace.  P273 Avoid release to the environment.  P284 [In case of inadequate ventilation] wear respiratory protection.  P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.  P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  P321 Specific treatment (see medical advice on this label).  P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.  P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.  P362+P364 Take off contaminated clothing and wash it before reuse.  P363 Wash contaminated clothing before reuse.  P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.  P403+P233 Store in a well-ventilated place. Keep container tightly closed.  P403+P235 Store in a well-ventilated place. Keep cool.  P405 Store locked up.</p>
<b>Biocide Labelling</b>	Contains a preservative (Iodopropynyl Butylcarbamate) to control microbial deterioration.

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

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<b>Glutaral</b>	<b>10 - &lt;25%</b>
CAS number: 111-30-8	EC number: 203-856-5
M factor (Acute) = 1	
<b>Classification</b>	
Acute Tox. 3 - H301	
Acute Tox. 2 - H330	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Resp. Sens. 1 - H334	
Skin Sens. 1A - H317	
STOT SE 3 - H335	
Aquatic Acute 1 - H400	
Aquatic Chronic 2 - H411	
<b>Propan-2-ol</b>	<b>5 - &lt;10%</b>
CAS number: 67-63-0	EC number: 200-661-7
<b>Classification</b>	
Flam. Liq. 2 - H225	
Eye Irrit. 2 - H319	
STOT SE 3 - H336	
<b>Propane-1,2-diol</b>	<b>0.025 - &lt;0.25%</b>
CAS number: 57-55-6	EC number: 200-338-0
<b>Classification</b>	
Acute Tox. 4 - H302	

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General information</b>	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel. Chemical burns must be treated by a physician.
<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place. In the event of any sensitisation symptoms developing, ensure further exposure is avoided.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place.

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<b>Skin contact</b>	It is important to remove the substance from the skin immediately. Take off immediately all contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. Chemical burns must be treated by a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

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

<b>General information</b>	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	May cause sensitisation or allergic reactions in sensitive individuals. A single exposure may cause the following adverse effects: Severe irritation of nose and throat. Symptoms following overexposure may include the following: Corrosive to the respiratory tract.
<b>Ingestion</b>	May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.
<b>Skin contact</b>	Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur. May cause skin sensitisation or allergic reactions in sensitive individuals.
<b>Eye contact</b>	Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

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

<b>Notes for the doctor</b>	Treat symptomatically. May cause sensitisation or allergic reactions in sensitive individuals.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

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

<b>Specific hazards</b>	Containers can burst violently or explode when heated, due to excessive pressure build-up. Flammable liquid and vapour. Vapours may be ignited by a spark, a hot surface or an ember. Vapours may form explosive mixtures with air. Fire-water run-off in sewers may create fire or explosion hazard. This product is toxic. Severe corrosive hazard. Water used for fire extinguishing, which has been in contact with the product, may be corrosive.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion products may include the following substances: Very toxic or corrosive gases or vapours.

### 5.3. Advice for firefighters

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<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
<b>Special protective equipment for firefighters</b>	Regular protection may not be safe. Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

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

<b>Personal precautions</b>	Do not touch or walk into spilled material. No smoking, sparks, flames or other sources of ignition near spillage. Evacuate area. Avoid inhalation of vapours and spray/mists. Provide adequate ventilation. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with contaminated tools and objects. Promptly remove any clothing that becomes contaminated. Wash thoroughly after dealing with a spillage.
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#### 6.2. Environmental precautions

<b>Environmental precautions</b>	Avoid discharge into drains and the aquatic environment.
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#### 6.3. Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	No smoking, sparks, flames or other sources of ignition near spillage. Eliminate all ignition sources if safe to do so. Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Do not allow material to enter confined spaces, due to the risk of explosion. Do not empty into drains. Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.
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#### 6.4. Reference to other sections

<b>Reference to other sections</b>	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.
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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

<b>Usage precautions</b>	Read and follow manufacturer's recommendations. Keep away from food, drink and animal feeding stuffs. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Immediate first aid is imperative. Wear protective clothing as described in Section 8 of this safety data sheet. Do not handle broken packages without protective equipment. Keep container tightly sealed when not in use. In use may form flammable/explosive vapour-air mixture. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Avoid discharge to the aquatic environment. Do not reuse empty containers.
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### Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

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

#### Storage precautions

Store away from incompatible materials (see Section 10). Store locked up. Eliminate all sources of ignition. Take precautionary measures against static discharges. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from oxidising materials, heat and flames. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

#### Storage class

Flammable liquid storage.

### 7.3. Specific end use(s)

#### Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Glutaral

Long-term exposure limit (8-hour TWA): WEL 0.05 ppm 0.2 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 0.05 ppm 0.2 mg/m<sup>3</sup>

Sen

##### Propan-2-ol

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m<sup>3</sup>

##### Propane-1,2-diol

Long-term exposure limit (8-hour TWA): WEL 150 ppm 474 mg/m<sup>3</sup> total vapour and particulates

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> particulate

WEL = Workplace Exposure Limit.

Sen = Capable of causing occupational asthma.

#### Undecan-4-olide (CAS: 104-67-6)

##### DNEL

Workers - Inhalation; Long term systemic effects: 19 mg/m<sup>3</sup>

Workers - Dermal; Long term systemic effects: 5.38 mg/kg/day

General population - Inhalation; Long term systemic effects: 4.68 mg/m<sup>3</sup>

General population - Dermal; Long term systemic effects: 2.7 mg/kg/day

General population - Oral; Long term systemic effects: 2.7 mg/kg/day

##### PNEC

Fresh water; 17.52 µg/l

Fresh water, Intermittent release; 58.5 µg/l

marine water; 1.75 µg/l

STP; 80 mg/l

Sediment (Freshwater); 1.882 mg/kg

Sediment (Marinewater); 0.188 mg/kg

Soil; 0.366 mg/kg

Secondary poisoning; 66.7 mg/kg

### 8.2. Exposure controls

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### Protective equipment



### Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilating equipment.

### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

### Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

### Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Warn cleaning personnel of any hazardous properties of the product.

### Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly.

### Environmental exposure controls

Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

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

Appearance	Liquid.
Colour	Not known.
Odour	Characteristic.
Odour threshold	Not available.
pH	pH (concentrated solution): 7.4-7.6

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<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	82-84°C/179-183°F
<b>Flash point</b>	31°C/88°F
<b>Evaporation rate</b>	<1 (butyl acetate = 1)
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	> 1
<b>Relative density</b>	1.045-1.055
<b>Solubility(ies)</b>	Not known.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	Not applicable.
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

### 9.2. Other information

<b>Other information</b>	No information required.
<b>Volatile organic compound</b>	This product contains a maximum VOC content of 85% .

## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

<b>Reactivity</b>	See the other subsections of this section for further details.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	The following materials may react strongly with the product: Oxidising agents.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Static electricity and formation of sparks must be prevented. Do not pressurise, cut, weld, drill, grind or otherwise expose containers to heat or sources of ignition.
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	Strong acids. Strong alkalis. Strong oxidising agents.
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### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Corrosive gases or vapours.
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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Acute Tox. 4 - H302 Harmful if swallowed.

**ATE oral (mg/kg)** 1,013.16

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Acute Tox. 4 - H332 Harmful if inhaled.

**ATE inhalation (dusts/mists mg/l)** 1.84

##### Skin corrosion/irritation

**Animal data** Skin Corr. 1B - H314 Causes severe burns.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Eye Dam. 1 - H318 Corrosive to skin. Corrosivity to eyes is assumed.

##### Respiratory sensitisation

**Respiratory sensitisation** There is evidence that the product can cause respiratory hypersensitivity.

##### Skin sensitisation

**Skin sensitisation** May cause skin sensitisation or allergic reactions in sensitive individuals.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

##### Carcinogenicity

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

##### IARC carcinogenicity

Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans.

##### Reproductive toxicity

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

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

##### Specific target organ toxicity - single exposure

**STOT - single exposure** STOT SE 3 - H335 May cause respiratory irritation.

**Target organs** Respiratory system, lungs

##### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

##### Aspiration hazard

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

##### General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

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<b>Inhalation</b>	May cause sensitisation or allergic reactions in sensitive individuals. Corrosive to the respiratory tract. Symptoms following overexposure may include the following: Severe irritation of nose and throat.
<b>Ingestion</b>	May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.
<b>Skin contact</b>	Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur. May cause skin sensitisation or allergic reactions in sensitive individuals.
<b>Eye contact</b>	Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.
<b>Route of exposure</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target organs</b>	Respiratory system, lungs
<b>Medical considerations</b>	Skin disorders and allergies.

### Toxicological information on ingredients.

#### Glutaral

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 154.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** REACH dossier information. Toxic if swallowed.

**ATE oral (mg/kg)** 154.0

##### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 2,001.0

**Species** Rabbit

**Notes (dermal LD<sub>50</sub>)** REACH dossier information. Based on available data the classification criteria are not met.

**ATE dermal (mg/kg)** 2,001.0

##### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)** 0.28

**Species** Rat

**Notes (inhalation LC<sub>50</sub>)** REACH dossier information. Toxic if inhaled.

**ATE inhalation (dusts/mists mg/l)** 0.28

##### Skin corrosion/irritation

**Animal data** Dose: 0.5 mL, 4 hours, Rabbit Erythema/eschar score: Well defined erythema (2). Oedema score: Moderate oedema - raised approximately 1 mm (3). REACH dossier information. Corrosive.

##### Serious eye damage/irritation

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<b>Serious eye damage/irritation</b>	Corrosive to skin. Corrosivity to eyes is assumed.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	Sensitising.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Guinea pig maximization test (GPMT) - Guinea pig: Sensitising. REACH dossier information. Epidemiological studies have shown evidence of skin sensitisation.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<b>Genotoxicity - in vivo</b>	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	NOAEL 100 ppm, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Two-generation study - NOAEL 2000 ppm, Oral, Rat P REACH dossier information. Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Maternal toxicity: - NOAEL: 50 ppm, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	NOAEL 50 ppm, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Toxicity** Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

#### Ecological information on ingredients.

##### Glutaral

<b>Toxicity</b>	Aquatic Acute 1 - H400 Very toxic to aquatic life.
<b><u>Acute aquatic toxicity</u></b>	
<b>LE(C)<sub>50</sub></b>	0.1 < L(E)C <sub>50</sub> ≤ 1
<b>M factor (Acute)</b>	1
<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 13 mg/l, Lepomis macrochirus (Bluegill)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: 14.87 mg/l, Daphnia magna

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**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 0.75 mg/l, Scenedesmus subspicatus

### 12.2. Persistence and degradability

**Persistence and degradability** The degradability of the product is not known.

### Ecological information on ingredients.

#### Glutaral

**Persistence and degradability** The product is readily biodegradable.

**Phototransformation** Water - DT<sub>50</sub> : 8.2 hours  
Estimated value.

**Biodegradation** Water - Degradation > 90%: 28 days

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

### Ecological information on ingredients.

#### Glutaral

**Bioaccumulative potential** The product is not bioaccumulating.

**Partition coefficient** log Pow: -0.36

### 12.4. Mobility in soil

**Mobility** No data available.

### Ecological information on ingredients.

#### Glutaral

**Mobility** The product is miscible with water and may spread in water systems.

**Adsorption/desorption coefficient** Water - log K<sub>oc</sub>: 0.76-3.32 @ 25°C

**Henry's law constant** 0.011 Pa m<sup>3</sup>/mol @ 25°C Estimated value.

**Surface tension** 68 mN/m @ 20°C

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### Ecological information on ingredients.

#### Glutaral

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

### 12.6. Other adverse effects

**Other adverse effects** None known.

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**General information** Reuse or recycle products wherever possible. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods** Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible. Vapour from residual product may create a highly flammable or explosive atmosphere inside the container. Containers should be thoroughly emptied before disposal because of the risk of an explosion. Do not cut or weld used containers unless they have been thoroughly cleaned internally.

### SECTION 14: Transport information

#### 14.1. UN number

UN No. (ADR/RID)	2920
UN No. (IMDG)	2920
UN No. (ICAO)	2920
UN No. (ADN)	2920

#### 14.2. UN proper shipping name

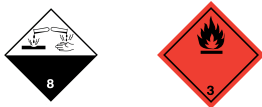
<b>Proper shipping name (ADR/RID)</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (CONTAINS Glutaral, Propan-2-ol)
<b>Proper shipping name (IMDG)</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (CONTAINS Glutaral, Propan-2-ol)
<b>Proper shipping name (ICAO)</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (CONTAINS Glutaral, Propan-2-ol)
<b>Proper shipping name (ADN)</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (CONTAINS Glutaral, Propan-2-ol)

#### 14.3. Transport hazard class(es)

<b>ADR/RID class</b>	8
<b>ADR/RID subsidiary risk</b>	3
<b>ADR/RID classification code</b>	CF1
<b>ADR/RID label</b>	8
<b>IMDG class</b>	8
<b>IMDG subsidiary risk</b>	3
<b>ICAO class/division</b>	8
<b>ICAO subsidiary risk</b>	3
<b>ADN class</b>	8
<b>ADN subsidiary risk</b>	3

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### Transport labels



#### 14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
ADN packing group	II

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

#### 14.6. Special precautions for user

EmS	F-E, S-C
ADR transport category	2
Emergency Action Code	•3W
Hazard Identification Number (ADR/RID)	83
Tunnel restriction code	(D/E)

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

### SECTION 15: Regulatory information

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

<b>National regulations</b>	Health and Safety at Work etc. Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
<b>EU legislation</b>	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

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<b>Abbreviations and acronyms used in the safety data sheet</b>	<p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>CAS: Chemical Abstracts Service.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.</p> <p>LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>EC<sub>50</sub>: 50% of maximal Effective Concentration.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
<b>Classification abbreviations and acronyms</b>	<p>Flam. Liq. = Flammable liquid</p> <p>Acute Tox. = Acute toxicity</p> <p>Eye Dam. = Serious eye damage</p> <p>Resp. Sens. = Respiratory sensitisation</p> <p>Skin Corr. = Skin corrosion</p> <p>Skin Sens. = Skin sensitisation</p> <p>STOT SE = Specific target organ toxicity-single exposure</p> <p>Aquatic Chronic = Hazardous to the aquatic environment (chronic)</p>
<b>Classification procedures according to Regulation (EC) 1272/2008</b>	<p>Acute Tox. 4 - H332: Acute Tox. 4 - H302: Eye Dam. 1 - H318: Skin Corr. 1B - H314: STOT SE 3 - H335: Resp. Sens. 1 - H334: Skin Sens. 1 - H317: : Calculation method. Aquatic Chronic 3 - H412: : Calculation method. Flam. Liq. 3 - H226: : Expert judgement.</p>
<b>Training advice</b>	<p>Read and follow manufacturer's recommendations. Only trained personnel should use this material.</p>
<b>Revision date</b>	18/06/2021
<b>Revision</b>	3
<b>Supersedes date</b>	27/11/2018
<b>SDS number</b>	5349
<b>Hazard statements in full</b>	<p>H225 Highly flammable liquid and vapour.</p> <p>H226 Flammable liquid and vapour.</p> <p>H301 Toxic if swallowed.</p> <p>H302 Harmful if swallowed.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H318 Causes serious eye damage.</p> <p>H319 Causes serious eye irritation.</p> <p>H330 Fatal if inhaled.</p> <p>H332 Harmful if inhaled.</p> <p>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H336 May cause drowsiness or dizziness.</p> <p>H400 Very toxic to aquatic life.</p> <p>H411 Toxic to aquatic life with long lasting effects.</p> <p>H412 Harmful to aquatic life with long lasting effects.</p>

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This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.