



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 Ardglen 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)

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

Hazard statements
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.

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Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P260 Do not breathe vapour/ spray.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER/ doctor.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	Glutaral
Supplementary precautionary statements	<p>P240 Ground and bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical equipment.</p> <p>P242 Use non-sparking tools.</p> <p>P243 Take action to prevent static discharges.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P284 [In case of inadequate ventilation] wear respiratory protection.</p> <p>P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P405 Store locked up.</p>
Biocide Labelling	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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Glutaral		10 - <25%
CAS number: 111-30-8	EC number: 203-856-5	
M factor (Acute) = 1		
Classification		
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		
Propan-2-ol		5 - <10%
CAS number: 67-63-0	EC number: 200-661-7	REACH registration number: 01-2119457558-25-XXXX
Classification		
Flam. Liq. 2 - H225		
Eye Irrit. 2 - H319		
STOT SE 3 - H336		
Ethanediol		0.25 - <0.5%
CAS number: 107-21-1	EC number: 203-473-3	
Classification		
Acute Tox. 4 - H302		
STOT RE 2 - H373		
3-Iodo-2-propynyl butylcarbamate		0.025 - <0.25%
CAS number: 55406-53-6	EC number: 259-627-5	
M factor (Acute) = 10	M factor (Chronic) = 1	
Classification		
Acute Tox. 4 - H302		
Acute Tox. 3 - H331		
Eye Dam. 1 - H318		
Skin Sens. 1 - H317		
STOT RE 1 - H372		
Aquatic Acute 1 - H400		
Aquatic Chronic 1 - H410		

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Silicon dioxide	<0.025%
CAS number: 112926-00-8	EC number: 231-545-4
Substance with National workplace exposure limits.	
Classification	
Not Classified	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel. Chemical burns must be treated by a physician.
Inhalation	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.
Ingestion	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.
Skin contact	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.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
Protection of first aiders	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

General information	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.
Inhalation	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.
Ingestion	May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.
Skin contact	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.

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Eye contact 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

Notes for the doctor Treat symptomatically. May cause sensitisation or allergic reactions in sensitive individuals.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media 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.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards 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.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Very toxic or corrosive gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting 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.

Special protective equipment for firefighters 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

Personal precautions 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.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains and the aquatic environment.

6.3. Methods and material for containment and cleaning up

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Methods for cleaning up 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.

6.4. Reference to other sections

Reference to other sections 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions 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.

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/m³

Short-term exposure limit (15-minute): WEL 0.05 ppm 0.2 mg/m³

Sen

Propan-2-ol

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

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Ethanediol

Long-term exposure limit (8-hour TWA): WEL 20 ppm 52 mg/m³ vapour

Short-term exposure limit (15-minute): WEL 40 ppm 104 mg/m³ vapour

Sk

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate

Sk

Silicon dioxide

Long-term exposure limit (8-hour TWA): WEL 2.4 mg/m³ respirable dust

Long-term exposure limit (8-hour TWA): WEL 6 mg/m³ inhalable dust

WEL = Workplace Exposure Limit.

Sen = Capable of causing occupational asthma.

Sk = Can be absorbed through the skin.

Citric acid (CAS: 77-92-9)

PNEC

- Fresh water; 0.44 mg/l
- marine water; 0.044 mg/l
- STP; 1000 mg/l
- Sediment (Freshwater); 34.6 mg/kg
- Sediment (Marinewater); 3.46 mg/kg
- Soil; 33.1 mg/kg

8.2. Exposure controls

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.

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

9.2. Other information

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

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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity See the other subsections of this section for further details.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions The following materials may react strongly with the product: Oxidising agents.

10.4. Conditions to avoid

Conditions to avoid 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.

10.5. Incompatible materials

Materials to avoid Strong acids. Strong alkalis. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Corrosive gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Acute Tox. 4 - H302 Harmful if swallowed.

ATE oral (mg/kg) 1,013.16

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) 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.

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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.

Inhalation

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.

Ingestion

May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.

Skin contact

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.

Eye contact

Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

Route of exposure

Ingestion Inhalation Skin and/or eye contact

Target organs

Respiratory system, lungs

Medical considerations

Skin disorders and allergies.

Toxicological information on ingredients.

Glutaral

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 154.0

Species Rat

Notes (oral LD₅₀) REACH dossier information. Toxic if swallowed.

ATE oral (mg/kg) 154.0

Acute toxicity - dermal

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Acute toxicity dermal (LD₅₀ mg/kg)	2,001.0
Species	Rabbit
Notes (dermal LD₅₀)	REACH dossier information. Based on available data the classification criteria are not met.
ATE dermal (mg/kg)	2,001.0
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ dust/mist mg/l)	0.28
Species	Rat
Notes (inhalation LC₅₀)	REACH dossier information. Toxic if inhaled.
ATE inhalation (dusts/mists mg/l)	0.28
<u>Skin corrosion/irritation</u>	
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.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Corrosive to skin. Corrosivity to eyes is assumed.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Sensitising.
<u>Skin sensitisation</u>	
Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Sensitising. REACH dossier information. Epidemiological studies have shown evidence of skin sensitisation.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
Carcinogenicity	NOAEL 100 ppm, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Two-generation study - NOAEL 2000 ppm, Oral, Rat P REACH dossier information. Based on available data the classification criteria are not met.
Reproductive toxicity - development	Maternal toxicity: - NOAEL: 50 ppm, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - repeated exposure</u>	

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STOT - repeated exposure NOAEL 50 ppm, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

Aspiration hazard

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

Propan-2-ol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,840.0

Species Rat

Notes (oral LD₅₀) REACH dossier information.

ATE oral (mg/kg) 5,840.0

Skin corrosion/irritation

Animal data Primary dermal irritation index: 0 REACH dossier information.

Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.1 ml, 1 second, Rabbit REACH dossier information. Irritating.

Skin sensitisation

Skin sensitisation Buehler test - Guinea pig: Not sensitising. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. REACH dossier information.

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information.

Carcinogenicity

Carcinogenicity NOEL 5000 ppm, Inhalation, Rat REACH dossier information.

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 3 - H336 May cause drowsiness or dizziness.

Target organs Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEC 5000 ppm, Inhalation, Rat REACH dossier information.

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

Toxicity Aquatic Acute 1 - H400 Very toxic to aquatic life.

Acute aquatic toxicity

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LE(C)₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC ₅₀ , 96 hours: 13 mg/l, Lepomis macrochirus (Bluegill)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 14.87 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 0.75 mg/l, Scenedesmus subspicatus

Propan-2-ol

Toxicity	No negative effects on the aquatic environment are known.
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 96 hours: 10000 mg/l, Pimephales promelas (Fat-head Minnow) REACH dossier information.
Acute toxicity - aquatic invertebrates	LC ₅₀ , 24 hours: > 10000 mg/l, Daphnia magna REACH dossier information.
Acute toxicity - aquatic plants	Toxicity threshold, 7 days: 1800 mg/l, Scenedesmus quadricauda REACH dossier information.

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 ₅₀ : 8.2 hours Estimated value.
Biodegradation	Water - Degradation > 90%: 28 days

Propan-2-ol

Persistence and degradability	The product is readily biodegradable.
Biodegradation	Water - Degradation (53%): 5 days REACH dossier information. The substance is readily biodegradable.
Biological oxygen demand	1.19 - 1.72 g O ₂ /g substance REACH dossier information.
Chemical oxygen demand	2.23 g O ₂ /g substance REACH dossier information.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

Ecological information on ingredients.

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Glutaral

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Pow: -0.36

Propan-2-ol

Bioaccumulative potential No data available on bioaccumulation.

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 Koc: 0.76-3.32 @ 25°C

Henry's law constant 0.011 Pa m³/mol @ 25°C Estimated value.

Surface tension 68 mN/m @ 20°C

Propan-2-ol

Mobility Soluble in water.

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.

Propan-2-ol

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.

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.

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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

General For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

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

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

14.3. Transport hazard class(es)

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

Transport labels



14.4. Packing group

ADR/RID packing group	II
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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

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

National regulations	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.
EU legislation	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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Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 IATA: International Air Transport Association.
 ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
 IMDG: International Maritime Dangerous Goods.
 CAS: Chemical Abstracts Service.
 ATE: Acute Toxicity Estimate.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 EC₅₀: 50% of maximal Effective Concentration.
 PBT: Persistent, Bioaccumulative and Toxic substance.
 vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations and acronyms

Flam. Liq. = Flammable liquid
 Acute Tox. = Acute toxicity
 Eye Dam. = Serious eye damage
 Resp. Sens. = Respiratory sensitisation
 Skin Corr. = Skin corrosion
 Skin Sens. = Skin sensitisation
 STOT SE = Specific target organ toxicity-single exposure
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Classification procedures according to Regulation (EC) 1272/2008

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.

Training advice

Read and follow manufacturer's recommendations. Only trained personnel should use this material.

Revision date

27/11/2018

Revision

2

Supersedes date

27/04/2017

SDS number

5349

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Hazard statements in full

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs (Larynx) through prolonged or repeated exposure.
H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

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.