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

1.1. Product identifier

Product name: GLYCEROL TECH
Product number: 2593
REACH registration number: 01-211971987-18-0000
CAS number: 56-81-5
EC number: 200-289-5

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

Uses advised against: No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier: Reagent Chemical Services
18 Aston Fields Road
Whitehouse Industrial Estate
Runcorn
Cheshire WA7 3DL

T: 01928 716903 (08.30 - 17.00)
F: 01928 716425
E: info@reagent.co.uk

1.4. Emergency telephone number

Emergency telephone: OHES Environmental Ltd 24-7
Tel. 0333 333 9939 (24 hour)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical hazards: Not Classified
Health hazards: Not Classified
Environmental hazards: Not Classified

Classification (67/548/EEC or 1999/45/EC)

2.2. Label elements

EC number: 200-289-5
Hazard statements

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name
GLYCEROL TECH

REACH registration number
01-2119471987-18-0000

CAS number
56-81-5

EC number
200-289-5

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Remove affected person from source of contamination.

Inhalation
Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion
Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if any discomfort continues.

Skin contact
Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye contact
Do not rub eye. Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if any discomfort continues.

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

General information
The product is considered to be a low hazard under normal conditions of use. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation
May cause irritation.

Ingestion
May cause discomfort if swallowed. May cause stomach pain or vomiting.

Skin contact
May be slightly irritating to skin.

Eye contact
May cause eye irritation.

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

Notes for the doctor
Treat symptomatically.

Specific treatments
No specific chemical antidote is known to be required after exposure to this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire. Water spray, foam, dry powder or carbon dioxide.

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
GLYCEROL TECH

Specific hazards  The product is not flammable. When handled correctly, undamaged units represent no danger.

Hazardous combustion products  Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting  Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters  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  Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes.

For emergency responders  Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions  No negative effects on the aquatic environment are known. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up  Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. To prevent release, place container with damaged side up. Take care as floors and other surfaces may become slippery. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: Absorb in vermiculite, dry sand or earth and place into containers. Dispose of waste via a licensed waste disposal contractor. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections  For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions  Wear protective clothing as described in Section 8 of this safety data sheet. Do not get in eyes, on skin, or on clothing. Avoid spilling.

Advice on general occupational hygiene  Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash after use and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions  Store in tightly-closed, original container in a dry and cool place. Protect from freezing and direct sunlight. Store away from the following materials: Strong acids. Strong alkalis.

Storage class  Chemical storage.

7.3. Specific end use(s)

Specific end use(s)  The identified uses for this product are detailed in Section 1.2.
8.1. Control parameters

Occupational exposure limits

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

WEL = Workplace Exposure Limit

**DNEL**
- Industry - Inhalation; Long term local effects: 56 mg/m³
- Consumer - Inhalation; Long term local effects: 33 mg/m³
- Consumer - Oral; Long term systemic effects: 229 mg/kg/day

**PNEC**
- Fresh water: 0.885 mg/l
- Marine water: 0.0885 mg/l
- Intermittent release: 8.85 mg/l
- STP: 1000 mg/l
- Sediment (Freshwater): 3.3 mg/kg
- Sediment (Marine water): 0.33 mg/kg
- Soil: 0.141 mg/kg

8.2. Exposure controls

**Protective equipment**

Provide adequate ventilation and appropriate extraction when vapours or mists are generated.

**Eye/face protection**

Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

**Hand protection**

Wear protective gloves. 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. For exposure up to 8 hours, wear gloves made of the following material: Neoprene. Nitrile rubber. Polyvinyl chloride (PVC). Thickness: ≥ 0.2 mm

**Other skin and body protection**

No specific requirements are anticipated under normal conditions of use.

**Hygiene measures**

Good personal hygiene procedures should be implemented. Wash hands thoroughly after handling. Wash at the end of each work shift and before eating, smoking and using the toilet. Take off contaminated clothing and wash it before reuse.

**Respiratory protection**

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Wear a respirator fitted with the following cartridge: Particulate filter, type P2. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Check that the respirator fits tightly and the filter is changed regularly.

**Environmental exposure controls**

Store in a demarcated bunded area to prevent release to drains and/or watercourses.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

**Appearance**
Viscous liquid.

**Colour**
Colourless.

**Odour**
Almost odourless.
GLYCEROL TECH

Odour threshold
Not determined.

pH
pH (diluted solution): About 5 10%

Melting point
Approx. 18°C

Initial boiling point and range
Approx. 290°C @

Flash point
Approx. 160°C

Evaporation rate
Not determined.

Evaporation factor
Not determined.

Flammability (solid, gas)
Scientifically unjustified.

Upper/lower flammability or explosive limits
Upper flammable/explosive limit: 19

Vapour pressure
< 0.1 hPa @ 20 @ °C

Vapour density
Not determined.

Relative density
Approx. 1.26 g/ml @ @ 20°C

Bulk density
Not determined.

Solubility(ies)
Miscible with water.

Partition coefficient
log Pow: -1.75

Auto-ignition temperature
Approx. 400°C

Decomposition Temperature
No information available.

Viscosity
1412 mPa s @ 20°C

Explosive properties
Not considered to be explosive.

Oxidising properties
Does not meet the criteria for classification as oxidising.

9.2. Other information
None.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity
The following materials may react with the product: Acids. Oxidising agents.

10.2. Chemical stability
Stability
Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions
May generate heat.

10.4. Conditions to avoid
Conditions to avoid
Avoid excessive heat for prolonged periods of time. Avoid freezing. When exposed to air, this product will absorb moisture.

10.5. Incompatible materials
Materials to avoid
Avoid contact with the following materials: Acids. Oxidising agents.

10.6. Hazardous decomposition products
SECTION 11: Toxicological information

11.1. Information on toxicological effects

**Acute toxicity - oral**

Acute toxicity oral (LD$_{50}$ mg/kg) 27,200.0
Species Rat
Notes (oral LD$_{50}$) REACH dossier information.

**Acute toxicity - dermal**

Acute toxicity dermal (LD$_{50}$ mg/kg) 56,750.0
Species Guinea pig
Notes (dermal LD$_{50}$) REACH dossier information.

**Acute toxicity - inhalation**

Acute toxicity inhalation (LC$_{50}$ vapours mg/l) 2.75
Species Rat
Notes (inhalation LC$_{50}$) REACH dossier information.

**Skin corrosion/irritation**

Based on available data the classification criteria are not met.

**Serious eye damage/irritation**

Based on available data the classification criteria are not met.

**Respiratory sensitisation**

Based on available data the classification criteria are not met.

**Skin sensitisation**

Based on available data the classification criteria are not met.

**Germ cell mutagenicity**

DNA damage and/or repair: Negative.

**Genotoxicity - in vitro**

Scientifically unjustified.

**Genotoxicity - in vivo**

Scientifically unjustified.

**Carcinogenicity**

There is no evidence that the product can cause cancer.

**Reproductive toxicity**

Two-generation study - 2000 mg/kg/day, Oral, Rat Based on available data the classification criteria are not met.

**Developmental toxicity:** NOAEL: 1310 mg/kg, Oral, Rat No evidence of reproductive toxicity in animal studies.

**Specific target organ toxicity - single exposure**

STOT - single exposure No specific test data are available.
GLYCEROL TECH

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 8000-10000 mg/kg, Oral, Rat Based on available data the classification criteria are not met.

Aspiration hazard
Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

General information This product has low toxicity.

Inhalation Vapours/aerosol spray may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

Ingestion Nausea, vomiting. May cause stomach pain or vomiting. Diarrhoea.

Skin contact May cause irritation.

Eye contact May cause temporary eye irritation. Profuse watering of the eyes. Redness.

Route of entry Skin and/or eye contact Oral Inhalation

SECTION 12: Ecological Information

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Acute toxicity - fish LC50, 96 hours: 54000 mg/l, Onchorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 10000 mg/l, Daphnia magna

Acute toxicity - aquatic plants ECₐ, 192 hours: > 10000 mg/l, Freshwater algae

Acute toxicity - microorganisms NOEC, 16 hours: > 1000 mg/l, Activated sludge REACH dossier information.

Acute toxicity - terrestrial Scientifically unjustified.

Chronic toxicity - fish early life stage Scientifically unjustified.

Short term toxicity - embryo and sac fry stages Not determined.

Chronic toxicity - aquatic invertebrates Scientifically unjustified.

Toxicity to soil Scientifically unjustified.

Toxicity to terrestrial plants Scientifically unjustified.

12.2. Persistence and degradability

Phototransformation Not determined.

Stability (hydrolysis) Scientifically unjustified.

Biodegradation Water - Degradation (%) 94%; 24 hours The substance is readily biodegradable.

Biological oxygen demand No specific test data are available.

Chemical oxygen demand No specific test data are available.
12.3. Bioaccumulative potential

Bioaccumulative potential: Bioaccumulation is unlikely.
Partition coefficient: log Pow: -1.75

12.4. Mobility in soil

Mobility: The product is miscible with water and may spread in water systems.
Adsorption/desorption coefficient: Scientifically unjustified.
Henry’s law constant: 0.000000006 atm m^3/mol @ 25°C
Surface tension: ~ 63.4 mN/m @ 20°C

12.5. Results of PBT and vPvB assessment

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: When handling waste, the safety precautions applying to handling of the product should be considered. The generation of waste should be minimised or avoided wherever possible.
Disposal methods: Reuse or recycle products wherever possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General: The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

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.

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

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).
Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation

Guidance
Workplace Exposure Limits EH40.

Authorisations (Title VII Regulation 1907/2006)
No specific authorisations are known for this product.

Restrictions (Title VIII Regulation 1907/2006)
No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS
All the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet
ATE: Acute Toxicity Estimate.
DNEL: Derived No Effect Level.
DMEL: Derived Minimal Effect Level.
PNEC: Predicted No Effect Concentration.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
NOAEC: No Observed Adverse Effect Concentration.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

General information
Only trained personnel should use this material. This datasheet is not intended to be a replacement for a full risk assessment, these should always be carried out by competent persons.

Key literature references and sources for data
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