SAFETY DATA SHEET
GLYCEROL AR

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

1.1. Product identifier
Product name: GLYCEROL AR
Product number: 1559
REACH registration number: 01-2119471987-18-0000
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
GLYCEROL AR

Hazard statements
NC Not Classified

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 AR
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 AR

**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**
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**
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)**
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
- Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.
- 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
- No specific requirements are anticipated under normal conditions of use.

**Eye/face protection**

- 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.

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**SECTION 9: Physical and Chemical Properties**

9.1. Information on basic physical and chemical properties

**Appearance**

- Viscous liquid.

**Colour**

- Colourless.

**Odour**

- Almost odourless.
GLYCEROL AR

Odour threshold: Not determined.

pH: pH (diluted solution): 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: 11.3% Lower flammable/explosive limit: 2.6%

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

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
GLYCEROL AR

Hazardous decomposition products
Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral
Acute toxicity oral (LD₅₀ mg/kg) 27,200.0
Species Rat
Notes (oral LD₅₀) REACH dossier information.

Acute toxicity - dermal
Acute toxicity dermal (LD₅₀ mg/kg) 56,750.0
Species Guinea pig
Notes (dermal LD₅₀) REACH dossier information.

Acute toxicity - inhalation
Acute toxicity inhalation (LC₅₀ vapours mg/l) 2.75
Species Rat
Notes (inhalation LC₅₀) REACH dossier information.

Skin corrosion/irritation
Based on available data the classification criteria are not met.
Animal data Not irritating.

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.

Carcinogenicity
There is no evidence that the product can cause cancer.

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

Reproductive toxicity - development
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 AR

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  EC₅₀, 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.
GLYCEROL AR

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 m3/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 AR

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

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.
- 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
GLYCEROL AR

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