



## SAFETY DATA SHEET MONO PROPYLENE GLYCOL USP

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

#### 1.1. Product identifier

Product name	MONO PROPYLENE GLYCOL USP
Product number	1778
REACH registration number	01-2119456809-23-xxxx
CAS number	57-55-6
EC number	200-338-0

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

Identified uses    Manufacture of substance    Distribution of substance    Formulation and (re)packing of substances and mixtures    Uses in coatings    Use in cleaning agents    Use as binders and release agents    Use as a functional fluid    Laboratories  
Other consumer uses. See Page 8 for more information on responsible uses\*.

Uses advised against - Not for use in cat food.

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

Supplier	Fluid Science Limited Unit 3b Arbour ct, Arbour lane, Knowsley Industrial Park, Kirkby L33 7XE  +44 (0)1244 506 860
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Contact person                      sales@fluidscienceltd.com

#### 1.4. Emergency telephone number

Emergency telephone                0870 190 6777 (National Chemical Emergency Centre) +44 (0)1270 502891

### 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

#### 2.2. Label elements

EC number	200-338-0
Hazard statements	NC Not Classified

#### 2.3. Other hazards

### SECTION 3: Composition/information on ingredients

## MONO PROPYLENE GLYCOL USP

### 3.1. Substances

Product name	MONO PROPYLENE GLYCOL USP
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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

General information	Get medical attention if any discomfort continues. Treat symptomatically
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.
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.
Skin contact	Rinse immediately with plenty of water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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

General information	No additional symptoms or effects are anticipated.
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#### 4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations.
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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
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. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours. Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO).

#### 5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Cool containers exposed to flames with water until well after the fire is out. Wear self contained breathing apparatus
Special protective equipment protective for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate clothing.

### SECTION 6: Accidental release measures

## MONO PROPYLENE GLYCOL USP

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions      Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Avoid contact with eyes and prolonged skin contact. Take care as floors and other surfaces may become slippery.

6.2. Environmental precautions

Environmental precautions      Do not discharge into drains or watercourses or onto the ground. Avoid release to the environment. Do not let the product or washing down water enter natural water courses or the sewer.

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. Wash thoroughly after dealing with a spillage. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Take care as floors and other surfaces may become slippery. Contain spillage - Do not wash spillage down drain.

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      Avoid spilling. Avoid contact with skin and eyes. Avoid the formation of mists.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions      No special storage precautions required. Keep away from heat, sparks and open flame. Keep container tightly closed. Suitable container materials: Stainless steel. Aluminium. Container lined with phenolic or epoxy-phenolic FDA food contact approved coating. HDPE.

Storage class      Unspecified storage.

7.3. Specific end use(s)

Usage description      The information contained within this Safety Data Sheet is given as a guide to the precautions required to maintain a safe work environment.

**SECTION 8: Exposure controls/Personal protection**8.1. Control parameters Occupational exposure limits

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

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

WEL = Workplace Exposure Limit

DNEL      Industry - Inhalation; Long term : 168 mg/m<sup>3</sup>  
Consumer - Inhalation; Long term : 50 mg/m<sup>3</sup>

PNEC      - Fresh water; 260 mg/l  
- marine water; 26 mg/l  
- STP; 20000 mg/l  
- Sediment; Freshwater 572 mg/kg  
- Sediment; Marine water 57.2 mg/kg  
- Soil; 50 mg/kg

8.2. Exposure controls

Protective equipment

## MONO PROPYLENE GLYCOL USP



Appropriate engineering controls	Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients. All handling should only take place in well-ventilated areas.
Eye/face protection	Wear chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	It is recommended that chemical-resistant, impervious gloves are worn. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Provide eyewash station. Wear apron or protective clothing in case of contact.
Hygiene measures	Provide eyewash station. Wash contaminated clothing before reuse. Wash promptly if skin becomes contaminated.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Respirators must conform to BS EN 149 and be regularly maintained in accordance with relevant legislation.

### SECTION 9: Physical and chemical properties

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

Appearance	Colourless liquid.
Colour	Colourless.
Odour	No characteristic odour.
Melting point	< -20°C
Initial boiling point and range	184°C @ 752.46 mm Hg
Flash point	104°C Closed cup.
Evaporation rate	0.01 (butyl acetate = 1)
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 2.6 Upper flammable/explosive limit: 12.5
Vapour pressure	20 Pa @ 25°C
Vapour density	2.62
Relative density	1.03 @ 20°C
Partition coefficient	: -1.07
Auto-ignition temperature	> 400°C
Viscosity	43.4 mPa s @ 25°C

## MONO PROPYLENE GLYCOL USP

### 9.2. Other information

#### SECTION 10: Stability and reactivity

##### 10.1. Reactivity 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 Will not polymerise.

##### 10.4. Conditions to avoid

Conditions to avoid Avoid contact with strong oxidising agents. Avoid contact with acids. bases

##### 10.5. Incompatible materials

Materials to avoid Strong acids. Strong oxides. bases

##### 10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Oxides of carbon. aldehydes organic acids, alcohols ethers

#### SECTION 11: Toxicological information

##### 11.1. Information on toxicological effects

Other health effects There is no evidence that the product can cause cancer.

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 20,000.0

Species Rat

ATE oral (mg/kg) 20,000.0

##### Acute toxicity - dermal

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

Species Rabbit

ATE dermal (mg/kg) 2,001.0

##### Acute toxicity - inhalation

Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l) 317.042

Species Rabbit

ATE inhalation (dusts/mists mg/l) 317.042

##### Skin corrosion/irritation

Skin corrosion/irritation Not irritating.

##### Serious eye damage/irritation

## MONO PROPYLENE GLYCOL USP

Serious eye damage/irritation	May cause temporary eye discomfort.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Not available.
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Negative.
<u>Carcinogenicity</u>	
Carcinogenicity	No evidence of carcinogenicity in animal studies.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	No evidence of reproductive toxicity in animal studies.
Reproductive toxicity development	No evidence of reproductive toxicity in animal studies.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
<u>Aspiration hazard</u>	
Aspiration hazard	Based on physical properties, not likely to be an aspiration hazard.
Inhalation	No significant hazard at normal ambient temperatures. Heating may generate the following products: Toxic gases or vapours. Vapour may irritate respiratory system/lungs.
Ingestion	No harmful effects expected from quantities likely to be ingested by accident.
Skin contact	Skin irritation should not occur when used as recommended. Product has a defatting effect on skin.
Eye contact	May cause temporary eye irritation.
Acute and chronic health hazards	This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Toxicity	Not considered toxic to fish.
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC <sub>50</sub> , 96 hours: >44,000 (rainbow trout) mg/l, Fish
Acute toxicity - aquatic invertebrates	EC <sub>50</sub> , 48 hours: 18340 mg/l, Ceriodaphnia dubia.
Acute toxicity - aquatic plants	EC <sub>50</sub> , 96 hours: 19000 mg/l, Pseudokirchneriella subcapitata
Acute toxicity microorganisms	NOEC, >: > 20000 mg/l, Pseudomonas putida, 18hr
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - aquatic invertebrates	NOEC, : 13020 mg/l, Ceriodaphnia (water flea), static renewal, 7d

## MONO PROPYLENE GLYCOL USP

### 12.2. Persistence and degradability

Persistence and degradability The product has proven to be degradable under anaerobic conditions. Readily biodegradable. Biodegradability after 28 days was found to be > 80%

### 12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating. BCF: ~ 0.09,

Partition coefficient : -1.07

### 12.4. Mobility in soil

Mobility The product is soluble in water.

### 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

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### General information

Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Contaminated packages must be completely emptied before sending away for laundering and re-use.

#### Disposal methods

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Recycle containers wherever possible. This product is not classified as hazardous waste.

#### Waste class

EWC NUMBER: Allocation of a waste code number in accordance with the European Waste Catalogue, should be carried out in agreement with an EA authorised waste disposal company.

## SECTION 14: Transport information

#### General

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

2491

### 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

Not applicable.

## MONO PROPYLENE GLYCOL USP

### 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

EU legislation Dangerous Substances Directive 67/548/EEC.  
Regulation (EC) No 1272/2008 CLP.  
Regulation (EC) No 1907/2006 REACH.

Guidance Workplace Exposure Limits EH40.

#### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

#### Inventories

EU - EINECS/ELINCS Present.

US - TSCA Present.

### SECTION 16: Other information

General information Since empty containers retain product residue, follow label warnings, even after container is emptied. For further Health and Safety information contact: Health and Safety Officer. Labels should not be removed from containers until they have been cleaned and no product remains within.

#### **Customer Notice\***

The recipient is responsible for determining whether Monopropylene Glycol USP/EP grade is safe, lawful, and technically suitable for recipient's specific use. Since Fluid Science has no control over how this information or its product may be ultimately used, all liability is expressly disclaimed, and Fluid Science assumes no obligation or liability therefore. No warranty, expressed or implied, is given nor is freedom from any patent owned by Fluid Science or others to be inferred.

Key literature references and sources for data Manufacturer's Material Safety Data Sheet

Revision comments Updated company address.

Issued by Compliance Department

Revision date 01/03/2022

Revision 4

Supersedes date 01/03/2022

SDS number 1778

SDS status Approved.

Risk phrases in full Not classified.

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