

MONOPROPYLENE GLYCOL (MPG)

Safety Data Sheet

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SECTION 1: Identification

1.1. Identification

Product name : MONOPROPYLENE GLYCOL (MPG)
EC number : 200-338-0
CAS-No. : 57-55-6
Formula : HO-CH₂-CH(OH)-CH₃

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
 For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Supplier

FARSA Group Ltd
Sales@farsagroup.az

1.4. Emergency contacts

Emergency number : +994512707856

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
propane-1,2-diol	(CAS-No.) 57-55-6 (EC-No.) 200-338-0 (REACH-no) 01-2119456809-23-XXXX	~ 99.5	Not classified

3.2. Mixtures

Not applicable

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SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation** : Remove person to fresh air and keep comfortable for breathing. Assure fresh air breathing. Allow the victim to rest.
- First-aid measures after skin contact** : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.
- First-aid measures after eye contact** : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse eyes with water as a precaution.
- First-aid measures after ingestion** : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

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

- Symptoms/effects** : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/effects after inhalation** : Practically non-toxic. At high concentrations, the vapours can be irritating to the respiratory system.
- Symptoms/effects after skin contact** : May cause slight irritation.
- Symptoms/effects after eye contact** : Direct contact with the eyes is likely to be irritating.
- Symptoms/effects after ingestion** : Ingestion may cause nausea and vomiting.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media** : Dry powder. Carbon dioxide. Water spray. Sand. Alcohol resistant foam.
- Unsuitable extinguishing media** : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

- Fire hazard** : Combustible.
- Hazardous decomposition products in case of fire** : Carbon monoxide. Carbon dioxide. Propionaldehyde.

5.3. Advice for firefighters

- Firefighting instructions** : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting** : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures** : Ventilate spillage area. Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment** : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures** : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and materials for containment and cleaning up

- Methods for cleaning up** : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
- Other information** : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed** : Avoid the formation of mists in the atmosphere.

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Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep only in the original container in a cool, well-ventilated place away from: Heat sources. Keep container closed when not in use.
Incompatible products	: Strong acids. Strong oxidizing agents. Isocyanates. Strong bases.
Incompatible materials	: Sources of ignition. Direct sunlight.
Storage temperature	: 0 - 40 °C
Information on mixed storage	: Do not store near oxidizing agents.
Storage area	: Store in a dry place. Material is hygroscopic.

7.3. Specific and use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Monopropylene glycol (MPG) (57-55-6)		
United Kingdom	Local name	Propane-1,2-diol
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ particulates 474 mg/m ³ total vapour and particulates
United Kingdom	WEL TWA (ppm)	150 ppm total vapour and particulates
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE
Monopropylene glycol (MPG) (57-55-6)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, inhalation		168 mg/m ³
Long-term - local effects, inhalation		10 mg/m ³
DNEL/DMEL (General population)		
Long-term - systemic effects, oral		85 mg/m ³
Long-term - systemic effects, inhalation		50 mg/m ³
Long-term - systemic effects, dermal		213 mg/m ³
Long-term - local effects, inhalation		10 mg/m ³
PNEC (Water)		
PNEC aqua (freshwater)		260 mg/l
PNEC aqua (marine water)		26 mg/l
PNEC (Sediment)		
PNEC sediment (freshwater)		572 mg/kg dwt
PNEC sediment (marine water)		57.2 mg/kg dwt
PNEC (Soil)		
PNEC soil		50 mg/kg dwt
PNEC (STP)		
PNEC sewage treatment plant		20000 mg/l

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8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Avoid all unnecessary exposure. In case of splash hazard: safety glasses. Gloves.
Materials for protective clothing	: Consult glove manufacturer's product information on material suitability and material thickness.
Hand protection	: Chemical resistant gloves (according to European standard EN 374 or equivalent). Wear rubber gloves. Nitrile rubber gloves. Neoprene protective gloves. PVC gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection (in case of inadequate ventilation)

Protective equipment symbol(s)



Environmental exposure controls	: Avoid release to the environment.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Appearance

Physical state	Liquid	Decomposition temperature	No data available
Appearance	Colorless, viscous liquid.	Flammability (solid, gas)	Flammable
Molecular mass	76.1 g/mol	Vapour pressure	20 Pa
Colour	Colourless.	Relative vapour density at 20 °C	No data available
Odour	Odourless.	Relative density	No data available
Odour threshold	No data available	Density	1.03 - 1.05 g/cm ³
pH	No data available	Solubility	Soluble in water.
Relative evaporation rate (butylacetate=1)	0.01	Log pow	-1.07
Melting point	< -51 °C	Viscosity, kinematic	43 mm ² /s (at 20 °C)
Freezing point	No data available	Viscosity, dynamic	No data available
Boiling point	184 °C	Explosive properties	No data available
Flash point	104 °C	Oxidising properties	Non oxidizing material according to EC criteria.
Auto-ignition temperature	> 370 °C	Explosive limits	2.6 - 12.5 vol %

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable at ambient temperature and under normal conditions of use.
Possibility of hazardous reactions	: No polymerization
Conditions to avoid	: Direct sunlight. Extremely high or low temperatures.
Incompatible materials	: Strong acids. Strong oxidizing agents. Isocyanates. Strong bases.
Hazardous decomposition products	: When heated to decomposition, emits toxic fumes. Carbon oxides (CO, CO ₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
LD50 oral rat	: 22000 mg/kg
LD50 dermal rabbit	: > 2000 mg/kg

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SECTION 12: Ecological information

12.1. Toxicity

- Ecology - general** : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
- Ecology - water** : Propylene glycol is known to exert high levels of biochemical oxygen demand (BOD) during degradation in surface waters. This process can adversely affect aquatic life by consuming oxygen needed by aquatic organisms.
- Acute aquatic toxicity** : Not classified
- Chronic aquatic toxicity** : Not classified

Monopropylene glycol (MPG) (57-55-6)	
LC50 fish 1	40613 mg/l Rainbow trout (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 1	43500 mg/l
EC50 96h algae (1)	19000 mg/l
NOEC chronic crustacea	13020 mg/l
NOEC chronic algae	15000 mg/l

12.2. Persistence and degradability

Monopropylene glycol (MPG) (57-55-6)	
Persistence and degradability	Readily biodegradable.
Chemical oxygen demand (COD)	1.53 g O ₂ /g substance
ThOD	1.68 g O ₂ /g substance
Biodegradation	96 % (64 days)

12.3. Bioaccumulative potential

Monopropylene glycol (MPG) (57-55-6)	
Log Pow	-1.07
Bioaccumulative potential	No bioaccumulation.

12.4. Mobility in soil

Monopropylene glycol (MPG) (57-55-6)	
Ecology - soil	Soluble material/quickly disperses in water.

12.5. Results of PBT and vPvB assessment

Monopropylene glycol (MPG) (57-55-6)	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Other adverse effects

- Other adverse effects** : Do not allow large quantities, as are, to spread into the environment. Do not discharge into drains or rivers.
- Additional information** : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste treatment methods** : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- Product/Packaging disposal recommendations** : Dispose in a safe manner in accordance with local/national regulations. Do not pierce or burn, even after use.
- Ecology - waste materials** : Avoid release to the environment.

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SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID/ADN)	: Not applicable
UN No. (IMDG)	: Not applicable
UN No. (ICAO)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR/RID/ADN)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (ICAO)	: Not applicable

14.3. Transport hazard class(es)

ADR/RID/ADN Class	: Not applicable
IMDG Class	: Not applicable
ICAO Class/Division	: Not applicable

14.4. Packing group

ADR/RID/ADN Packing group	: Not applicable
IMDG Packing group	: Not applicable
ICAO Packing group	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport	: No data available
Transport by sea	: No data available
Air transport	: No data available
Inland waterway transport	: No data available
Rail transport	: No data available

SECTION 15: Regulatory information

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

EU-Regulations	: No REACH Annex XVII restrictions Monopropylene glycol (MPG) is not on the REACH Candidate List Monopropylene glycol (MPG) is not on the REACH Annex XIV List
National regulations	: No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Information Sources	: 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: None

Disclaimer:

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