

# Monopropylene glycol (MPG)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
SDS Ref.: Periodic review of SDS 11/8/2021  
Date of issue: 1/16/2014 Revision date: 11/8/2018 Supersedes: 12/22/2016 Version: 2.1

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

#### 1.1. Product identifier

Product form : Substance  
Trade name : Monopropylene glycol (MPG)  
IUPAC name : 1,2-Propanediol  
EC-No. : 200-338-0  
CAS-No. : 57-55-6  
REACH registration No : 01-2119456809-23-XXXX  
Type of product : glycol  
Formula : HO-CH<sub>2</sub>-CH(OH)-CH<sub>3</sub>

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

Wessex Chemical Factors Ltd  
9 Crane Way, Woolsbridge Industrial Park,  
Three Legged Cross, Wimborne, Dorset  
BH21 6FA - United Kingdom  
T +44 (0) 1202 823 699 - F +44 (0) 1202 813 863  
[www.wessexchemicalfactors.co.uk](http://www.wessexchemicalfactors.co.uk)  
E-mail address of competent person responsible for the SDS : [info@wessexchemicalfactors.co.uk](mailto:info@wessexchemicalfactors.co.uk)

#### 1.4. Emergency telephone number

Emergency number : +44 (0) 1202 823 699 (Office hours only 9am - 5pm Monday - Thursday, 9am - 4pm Friday.)  
+44 (0) 7973629367 (Out of hours emergency number)

### SECTION 2: Hazards 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.
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##### 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 material 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.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

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

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### 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 end 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 <sup>3</sup> )	10 mg/m <sup>3</sup> particulates 474 mg/m <sup>3</sup> 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)	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, inhalation	168 mg/m <sup>3</sup>
Long-term - local effects, inhalation	10 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	85 mg/m <sup>3</sup>
Long-term - systemic effects, inhalation	50 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	213 mg/m <sup>3</sup>
Long-term - local effects, inhalation	10 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	260 mg/l
PNEC aqua (marine water)	26 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	572 mg/kg dwt
PNEC sediment (marine water)	57.2 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	50 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	20000 mg/l

### 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

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### Eye protection:

Chemical goggles or safety glasses

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

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

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

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

### 10.3. Possibility of hazardous reactions

No polymerization.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

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### 10.5. Incompatible materials

Strong acids. Strong oxidizing agents. Isocyanates. Strong bases.

### 10.6. Hazardous decomposition products

When heated to decomposition, emits toxic fumes. Carbon oxides (CO, CO<sub>2</sub>).

## 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

#### Monopropylene glycol (MPG) (57-55-6)

LD50 oral rat	22000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation : Repeated or prolonged contact may cause skin irritation  
Additional information : "Irritant": non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation  
Serious eye damage/irritation : Not classified  
Additional information : May cause slight temporary irritation  
Respiratory or skin sensitisation : Not classified (No sensitizing effect known)  
Germ cell mutagenicity : Not classified  
Additional information : Based on available data, the classification criteria are not met  
Carcinogenicity : Not classified  
Additional information : Based on available data, the classification criteria are not met  
Reproductive toxicity : Not classified  
Additional information : Based on available data, the classification criteria are not met  
STOT-single exposure : Not classified  
Additional information : Based on available data, the classification criteria are not met  
STOT-repeated exposure : Not classified  
Additional information : Based on available data, the classification criteria are not met  
Aspiration hazard : Not classified  
Additional information : Based on available data, the classification criteria are not met

#### Monopropylene glycol (MPG) (57-55-6)

Viscosity, kinematic	43 mm <sup>2</sup> /s (at 20 °C)
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Potential adverse human health effects and symptoms : May be slightly irritating to eyes, respiratory system and skin.

## 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.
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Chemical oxygen demand (COD)	1.53 g O <sub>2</sub> /g substance
ThOD	1.68 g O <sub>2</sub> /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.
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### 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.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

UN-No. (ADN) : Not applicable

UN-No. (RID) : Not applicable

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

Proper Shipping Name (ADN) : Not applicable

Proper Shipping Name (RID) : Not applicable

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : Not applicable

#### IMDG

Transport hazard class(es) (IMDG) : Not applicable

#### IATA

Transport hazard class(es) (IATA) : Not applicable

#### ADN

Transport hazard class(es) (ADN) : Not applicable

#### RID

Transport hazard class(es) (RID) : Not applicable

### 14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

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Packing group (ADN) : Not applicable

Packing group (RID) : 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

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. 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

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Data 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.

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*