



SAFETY DATA SHEET
MONOPROPYLENE GLYCOL

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Compilation date: 06/04/11

Revision No: 3

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

1.1. Product identifier

Product name: MONOPROPYLENE GLYCOL
REACH registered number(s): 01-2119456809-23-XXXX
CAS number: 57-55-6
EINECS number: 200-338-0
Synonyms: * PROPANE-1,2-DIOL
1,2-DIHYDROXYPROPANE
1,2-PROPANDIOL

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

Use of substance / mixture: Organic Solvent. Coolant. Anti-freezing Agent. Chemical manufacturing.

1.3. Details of the supplier of the safety data sheet

Company name: Monarch Chemicals Limited
New Road
Sheerness
Kent
ME12 1LZ
United Kingdom
Tel: 01795 583333 (09:00 - 17:00 Mon-Fri)
Fax: 01795 583300
Email: sales@monarchchemicals.co.uk

1.4. Emergency telephone number

Emergency tel: 07711 009064 (Out of Hours)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: This product has no classification under CLP.

2.2. Label elements

Label elements: This product has no label elements.

2.3. Other hazards

PBT: This substance is not identified as a PBT substance.

[cont...]

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Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: MONOPROPYLENE GLYCOL

Section 4: First aid measures

4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. If irritation develops or persists seek medical attention.
- Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.
- Ingestion:** If conscious, wash the mouth out with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. If irritation develops or persists seek medical attention.
- Inhalation:** * Not applicable under normal conditions of use. Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious, check for breathing and apply artificial respiration if necessary. Move to fresh air in case of accidental inhalation of vapours. If symptoms develop seek medical attention.

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

- Skin contact:** There may be mild irritation at the site of contact. There may be mild discomfort and redness. May cause dermatitis and defatting of the skin.
- Eye contact:** There may be irritation and redness.
- Ingestion:** May cause mild irritation of the gastrointestinal tract if large quantities are ingested. Nausea and stomach pain may occur. There may be vomiting and diarrhoea.
- Inhalation:** Not applicable under normal conditions of use. May cause irritation of the mucous membranes and respiratory system. Prolonged inhalation of mists may cause lung inflammation.
- Delayed / immediate effects:** * Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: * No special requirements.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Water spray. Carbon dioxide. Alcohol or polymer foam. Dry chemical powder. Use water spray to cool containers. Use water spray to reduce vapours. Do not use water in a jet.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Keep containers exposed to fire cool with waterspray. Non-flammable, but will support combustion.

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5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Wear suitable protective clothing. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Eliminate all sources of ignition.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Wash the spillage site with large amounts of water.

6.4. Reference to other sections

Reference to other sections: * Refer to section 8 of SDS. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Wear suitable protective clothing. Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air. Avoid contact with the material and breathing its vapours.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed. Avoid incompatible materials and conditions - see section 10 of SDS.

Suitable packaging: * Steel drums. Aluminium containers. Polyethylene. Some rubbers and plastics are attacked by the product.

7.3. Specific end use(s)

Specific end use(s): * No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits:

Respirable dust

State	8 hour TWA:	15 min. STEL:	8 hour TWA:	15 min. STEL:

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UK	150 ppm (474 mg/m ³)	-	-	-
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8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Ensure all engineering measures mentioned in section 7 of SDS are in place.

Respiratory protection: Gas/vapour filter, type A: organic vapours (EN141). Wear suitable respiratory protection when aerosols or mist are present.

Hand protection: Gloves (solvent-resistant).

Eye protection: Safety goggles. Ensure eye bath is to hand.

Skin protection: * Protective clothing. Boots. Ensure safety shower is to hand.

Environmental: * No special requirement.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: Odourless

Evaporation rate: Negligible

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Soluble

Also soluble in: Most organic solvents.

Viscosity: * Non-viscous

Boiling point/range°C: * ~ 185

Melting point/range°C: * < -20

Flammability limits %: lower: 2.6

upper: 12.6

Flash point°C: 99

Part.coeff. n-octanol/water: * -1.07

Autoflammability°C: * > 400

Vapour pressure: 20 Pa @ 25 oC

Relative density: ~ 1.03 g/ml

pH: Neutral.

9.2. Other information

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions. Hygroscopic.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

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10.4. Conditions to avoid

Conditions to avoid: Heat. Hot surfaces. Sources of ignition. Flames. Static Discharge. Moist air. Humidity. Moisture.

10.5. Incompatible materials

Materials to avoid: * Strong acids. Strong Alkalis. Strong oxidising agents.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of carbon dioxide / carbon monoxide. In a fire may liberate acrid and irritant fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
ORL	RAT	LD50	20,000	mg/kg
SKN	RBT	LD50	> 10,000	mg/kg

Symptoms / routes of exposure

Skin contact: There may be mild irritation at the site of contact. There may be mild discomfort and redness. May cause dermatitis and defatting of the skin.

Eye contact: There may be irritation and redness.

Ingestion: May cause mild irritation of the gastrointestinal tract if large quantities are ingested. Nausea and stomach pain may occur. There may be vomiting and diarrhoea.

Inhalation: Not applicable under normal conditions of use. May cause irritation of the mucous membranes and respiratory system. Prolonged inhalation of mists may cause lung inflammation.

Delayed / immediate effects: * Immediate effects can be expected after short-term exposure.

Other information: * There is no further information at this time.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values:

Species	Test	Value	Units
RAINBOW TROUT (<i>Oncorhynchus mykiss</i>)	96H LC50	40613	mg/l

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Ceriodaphnia dubia	48H EC50	18340	mg/l
MYSID SHRIMP (Mysidopsis bahia)	96H LC50	18800	mg/l
GREEN ALGA (Selenastrum capricornutum)	96H EC50	19000	mg/l

12.2. Persistence and degradability

Persistence and degradability: * The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: * Product is not expected to bioaccumulate.

12.4. Mobility in soil

Mobility: Non-volatile. Soluble in water. Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

Persistence (P-):

Persistence result: not P-

Bioaccumulation (B-):

Bioconcentration factor (BCF): <2000

Bioaccumulation result: not B-

Toxicity (T-):

mg/l

NOEC for marine or freshwater organisms: >0.1

Toxicity result: not T-

PBT identification: This substance is not identified as a PBT substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity. Do not allow to enter watercourses or soils. Spillage in sewers or waterways must be avoided.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: * Transfer to a suitable container and arrange for collection by specialised disposal company.

Recovery operations: * No information available at this time.

Disposal of packaging: Contaminated containers must not be treated as household waste. Where practical, containers and packaging should be recycled by a licenced contactor.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

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Section 14: Transport information

Transport class: This product is not classified for transport.

Section 15: Regulatory information

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

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.