

Revision Date 26.09.2013
Revision 02



SAFETY DATA SHEET MONOPROPYLENE GLYCOL

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	MONOPROPYLENE GLYCOL
Product No.	100085, 100086, 102698, 102699, 102700, 100751, 109477, 109479, 100901, 105977
Synonyms, Trade Names	PROPYLENE GLYCOL, PROPAN 1, 2 DIOL, DOWCAL 20, DOWCAL N , 1, 2 PROPYLENE GLYCOL CARE, PROPYLENE GLYCOL INDUSTRIAL GRADE, MONOPROPYLENE GLYCOL PH , MPG STANDARD, PROPYLENE GLYCOL USP GRADE, PROPYLENE GLYCOL TECHNICAL GRADE, PROPYLENE GLYCOL USP/EP, KOLLISOLV PG
REACH Registration number	01-2119456809-23
CAS-No.	57-55-6
EC No.	200-338-0

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

Identified uses	Chemical Intermediate Antifreeze liquid. Industrial Solvent Pharmaceuticals Food industry Cosmetics
------------------------	--

1.3. Details of the supplier of the safety data sheet

Supplier	Univar Aquarius House 6 Midpoint Business Park Thornbury Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univareurope.com
-----------------	--

1.4. Emergency telephone number

Emergency Contact Number (Office Hours)	+44 1274 267346
Emergency Contact Number (Outside Office Hours)	+441865 407333
Sds No.	20317

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

MONOPROPYLENE GLYCOL

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Not classified.
Environment	Not classified.

Classification (67/548/EEC) Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Environment

The product is not expected to be hazardous to the environment.

2.2. Label elements

EC No. 200-338-0

Label In Accordance With (EC) No. 1272/2008

No pictogram required.

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Product name	MONOPROPYLENE GLYCOL
REACH Registration number	01-2119456809-23
CAS-No.	57-55-6
EC No.	200-338-0

Composition Comments

This product is not classified as hazardous, the information in this datasheet is given for guidance only.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.

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

Skin contact

Slightly irritating.

Eye contact

May cause temporary eye irritation.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

MONOPROPYLENE GLYCOL

5.1. Extinguishing media

Extinguishing media

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Specific hazards

Oxides of: Carbon.

5.3. Advice for firefighters

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Store in closed original container at temperatures between 0°C and 40°C.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
MONOPROPYLENE GLYCOL	WEL	150 ppm	474 mg/m ³			

WEL = Workplace Exposure Limit.

Ingredient Comments

WEL = Workplace Exposure Limits

DNEL

Industry	Inhalation.	Long Term	Systemic Effects	50 mg/m ³
Industry	Inhalation.	Long Term	Local Effects	10 mg/m ³
Consumer	Inhalation.	Long Term	Systemic Effects	168 mg/m ³
Consumer	Inhalation.	Long Term	Systemic Effects	10 mg/m ³

PNEC

Freshwater	260	mg/l
------------	-----	------

MONOPROPYLENE GLYCOL

Marinewater	26	mg/l
STP	20000	mg/l
Sediment (Freshwa	572	mg/l
Sediment (Marinew	57.2	mg/l
Soil	50	mg/l

8.2. Exposure controls

Protective equipment



Engineering measures

Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of vapours.

Respiratory equipment

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

Hand protection

No specific hand protection noted, but gloves may still be advisable. Use protective gloves made of: Impermeable material.

Eye protection

If risk of splashing, wear safety goggles or face shield.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Colourless. or Misc. colours.
Solubility	Soluble in water.
Initial boiling point and boiling range (°C)	> 150
Melting point (°C)	<-51
Relative density	1.03 - 1.05 20
Vapour pressure	<10 mbar 20°C
pH-Value, Conc. Solution	7 - 10
Viscosity	43 cSt 20
Flash point (°C)	104 PM Closed cup.
Auto Ignition Temperature (°C)	>370
Flammability Limit - Lower(%)	2.6
Flammability Limit - Upper(%)	12.5
Partition Coefficient (N-Octanol/Water)	log Pow -1.07

9.2. Other information

Not determined.

SECTION 10: STABILITY AND REACTIVITY

MONOPROPYLENE GLYCOL

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances. Strong acids. Strong alkalis.

10.6. Hazardous decomposition products

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Acute Toxicity (Oral LD₅₀)

20000 mg/kg Rat

Acute Toxicity (Dermal LD₅₀)

> 2000 mg/kg Rabbit

Skin Corrosion/Irritation:

Not irritating.

Serious eye damage/irritation:

Data lacking.

Respiratory or skin sensitisation:

Not Sensitising.

Germ cell mutagenicity:

This substance has no evidence of mutagenic properties.

Carcinogenicity:

This substance has no evidence of carcinogenic properties.

Reproductive Toxicity:

This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - repeated exposure:

Target Organs

Central nervous system

Inhalation

In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

MONOPROPYLENE GLYCOL

Ingestion

May cause discomfort if swallowed.

Skin contact

Liquid may irritate skin.

Eye contact

Spray and vapour in the eyes may cause irritation and smarting.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity**Acute Fish Toxicity**

Not considered toxic to fish.

Acute Toxicity - Fish

LC50 96 hours 40613 mg/l *Onchorhynchus mykiss* (Rainbow trout)

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours > 4000 mg/l *Daphnia magna*

Acute Toxicity - Aquatic Plants

EC50 96 hours 19000 mg/l *Scenedesmus subspicatus*

12.2. Persistence and degradability**Degradability**

The substance is readily biodegradable.

Biodegradation

Degradation (81%) > 28 days

OECD 301F

Degradation (96%) 64 days

12.3. Bioaccumulative potential**Bioaccumulative potential**

The product is not bioaccumulating.

Bioaccumulation factor

BCF < 100

Partition coefficient

log Pow -1.07

12.4. Mobility in soil**Mobility:**

The product is miscible with water. May spread in water systems.

Henry's Law Constant

1.2 E -08 atm m³/mol

12.5. Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Do not puncture or incinerate even when empty.

13.1. Waste treatment methods

MONOPROPYLENE GLYCOL

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

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

14.1. UN number

No information required.

14.2. UN proper shipping name

No information required.

14.3. Transport hazard class(es)

No information required.

14.4. Packing group

No information required.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

No information required.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information required.

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

Guidance Notes

CHIP for everyone HSG(108).

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. 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 with amendments.

15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

MONOPROPYLENE GLYCOL

Revision Comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision Date	26.09.2013
Revision	02
SDS No.	20317
Safety Data Sheet Status	Approved.
Date	27.09.2010
Signature	Jitendra Panchal
Risk Phrases In Full	
NC	Not classified.
Hazard Statements In Full	