SAFETY DATA SHEET
Monopropylene glycol (MPG)

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

Date issued 04.11.2013

1.1. Product identifier

Product name	Monopropylene glycol (MPG)
Chemical name	1,2-propylenglykol
REACH Reg No.	01-2119456809-23-0000
CAS no.	57-55-6
EC no.	200-338-0
Article no.	16200000

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

Use of the substance/preparation Lösningsmedel (Solvent). Antifreeze liquid.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name	Fred Holmberg & Co AB
Office address	Geijersgatan 8
Postal address	Box 60056
Postcode	S-216 10
City	Limhamn
Country	Sweden
Tel	+46 (0)40 15 79 20
Fax	+46 (0)40 16 22 95
E-mail	info@holmberg.se
Website	http://www.holmberg.se/en/

1.4. Emergency telephone number

Emergency telephone 112 (Europe)

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification notes	Ej farligt ämne eller blandning enligt enligt Direktiv 67/548/EEG. Not classified/subject to labelling according to 67/548/EEC.
Classification notes CLP	Ej farligt ämne eller blandning enligt regelverket (EG) nr 1272/2008. Not classified/subject to labelling according to (EC) No 1272/2008 [CLP/GHS].

2.2. Label elements

2.3. Other hazards

Other hazards Not known.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance	Identification	Classification	Contents
Monopropylene glycol (MPG)	CAS no.: 57-55-6 EC no.: 200-338-0 Registration number: 01-	Classification notes:Monopropylenglykol	99,5

	2119456809-23-0000	är ej märkningspliktigt. (Monopropylene glykol is not classified/subject to labelling)

Column headings	CAS no. = Chemical Abstracts Service; EU (Einecs or Elincs number) = European inventory of Existing Commercial Chemical Substances; Ingredient name = Name as specified in the substance list (substances that are not included in the substance list must be translated, if possible). Contents given in; %, %wt/wt, %vol/wt, %vol/vol, mg/m3, ppb, ppm, weight%, vol%
HH/HF/HE	T+ = Very toxic, T = Toxic, C = Corrosive, Xn = Harmful, Xi = Irritating, E = Explosive, O = Oxidizing, F+ = Extremly flammable, F = Very flammable, N = Environmental hazard

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air at once.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart.
Ingestion	Rinse mouth with water. Drink plenty of water.

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

Information for health personnel	Treat Symptomatically.

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

Specific details on antidotes	No recommendation given.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Fire creates: Carbon monoxide (CO). Carbon dioxide (CO2).

5.3. Advice for firefighters

Fire fighting procedures	No specific fire fighting procedure given.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Ventilate well. Stop leak if possible without risk. Avoid contact with skin and eyes. Do not breathe vapour.

6.2. Environmental precautions

Environmental precautionary measures	Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Cleaning method	Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

6.4. Reference to other sections

Other instructions	No recommendation given.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Mechanical ventilation may be required. Observe good industrial hygiene practices.

Protective Safety Measures

Safety Measures To Prevent fire	Take precautionary measures against static discharge. Keep away from heat / sparks / open flames / hot surfaces. — No smoking.
Advice on general occupational hygiene	Provide easy access to water supply and eye wash facilities.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Keep away from heat, sparks and open flame. Store in a cool and well-ventilated place. Protect from sunlight. Do not allow contact with air. Protect from moisture.
Conditions To Avoid	Avoid contact with oxidising agents.

7.3. Specific end use(s)

Specific use(s)	Not entered.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Other Information about threshold limit values	Innehåller inga ämnen med yrkeshygieniska gränsvärden. Contains no substances with Occupational Exposure limit values. Norske grenseverdier; FOR-2011-12-06-1358 vedlegg 1. Produktet har ikke normverdi.

8.2. Exposure controls

Occupational exposure limits	Well-ventilated area. Protective gloves and goggles are recommended. Provide eyewash, quick drench.

Safety signs

Respiratory protection

Respiratory protection	Suitable respiratory protection must be used at high concentrations. If ventilation is insufficient, suitable respiratory protection must be provided. Use respiratory equipment with gas filter, type A2.

Hand protection

Hand protection	Use protective gloves. Chemical resistant gloves required for prolonged or repeated contact. Gloves of nitrile rubber, PVA or Viton are recommended.

Eye / face protection

Eye protection	Use safety goggles or face shield in case of splash risk.

Skin protection

Skin protection (except hands)	Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene / Environmental

Specific hygiene measures	Wash hands after contact.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Colourless liquid.
Colour	Colourless.
Odour	Odourless.
pH (as supplied)	Value: 6,4 Test temperature: 20 °C

Comments, pH (as supplied)	500g/kg
Melting point/melting range	Value: -59 °C Method of testing: Literature.
Boiling point / boiling range	Value: ~ 184 °C
Flash point	Value: ~ 104 °C Method of testing: Literature
Vapour pressure	Value: 0,2 hPa Test temperature: 25 °C
Specific gravity	Value: 1030 kg/m3 Test temperature: 20 °C
Solubility in water	Blandbar (miscible).
Partition coefficient: n-octanol/water	Value: -1,07 Test temperature: 20,5
Spontaneous combustability	Value: > 400 °C
Viscosity	Value: 43,428 mPa/s Test temperature: 25 °C

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity — There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability — Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to avoid — Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidisers.

10.5. Incompatible materials

10.6. Hazardous decomposition products

Hazardous decomposition products — Fire creates: Carbon monoxide (CO). Carbon dioxide (CO_2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information:

Other toxicological data — Acute Toxicity (Oral LD50): mg/kg (oral rat) > 22000 (OECD 401)
Acute Toxicity (Dermal LD50): > 2000 mg/kg Rabbit

Potential acute effects

Inhalation	Icke klassificerad som aspirationstoxisk (Not classified as asp. tox.)
Skin contact	Not Irritating.
Eye contact	Not Irritating.

Delayed effects / repeated exposure

Sensitisation	Not known.
Chronic effects	None known.
STOT-single exposure	Not known.
STOT-repeated exposure	Not known.

Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity	None.
Mutagenicity	Not known.
Teratogenic properties	Not known.
Reproductive toxicity	None.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic, fish	Value: 40,613 mg/l Method of testing: LC50 Fish, species: Oncorhynchus mykiss Duration: 96h
Acute aquatic, algae	Value: 24200 mg/l Method of testing: EC50 (OECD 201) Algae, species: Selenastrum capricornutum Duration: 72h
Acute aquatic, Daphnia	Value: 18800 mg/l Method of testing: EC50 Daphnia, species: Mysidopsis bahia Duration: 48h
Other ecotoxicological information, crustaceans	NOEC (7 d) 13.020 mg/l, Ceriodaphnia sp.

12.2. Persistence and degradability

Persistence and degradability description	Lätt biologiskt nedbrytbar (Readily biodegradable).

12.3. Bioaccumulative potential

Bioaccumulative potential	Data lacking.

12.4. Mobility in soil

Surface tension	Value: 71,6 mN/m
Comments, Surface tension	(21,5 °C; 1,01 g/l) (Direktiv 92/69/EEG, A.5, OECD-ringmetod)

12.5. Results of PBT and vPvB assessment

PBT assessment results	This substance is not classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects / Remarks	None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Confirm disposal procedures with environmental engineer and local regulations. Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point. Liquid components can be disposed of by incineration.
Product classified as hazardous waste	No
Packaging classified as hazardous waste	No

SECTION 14: Transport information

14.1. UN number

Comments	Not dangerous goods in the meaning of ADR/RID, ADNR, IMDG-Code, ICAO/IATA-DGR

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Ship type required	NA
Pollution category	Z

SECTION 15: Regulatory information

EC no. 200-338-0

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

Other Label Information	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.
Legislation and regulations	Dangerous Substance Directive 67/548/EEC. The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895). Avfallsförordningen (2011:927).

15.2. Chemical safety assessment

SECTION 16: Other information

Responsible for safety data sheet Fred Holmberg & Co AB