SAFETY DATA SHEET

MPG 30/70 Antifreeze Coolant (Heating & Refrigeration Grade)

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

1.1 Product identifier

Trade name: MPG 30/70 Antifreeze Coolant (Heating & Refrigeration Grade)

Product type: Monopropylene glycol/water heat transfer fluid (30/70 premix)

Product code: MPG30/70-HVAC

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

Identified uses:
Heat transfer fluid for closed-loop heating, cooling, refrigeration, and HVAC systems;
antifreeze for chillers, solar heating, and refrigeration plants where uninhibited glycols are acceptable.

Uses advised against:
Use in open systems where vapours may be released; potable water or direct food contact;
automotive engine coolant; systems requiring corrosion inhibited heat transfer fluids.

1.3 Details of the supplier of the safety data sheet

Fluid Science Limited
Unit 3b Arbour Court
Arbour Lane
Knowsley Industrial Park
Kirkby
L33 7XE
+44 (0)1244 506 860 (General Enquiries)+
sales@fluidscienceltd.com

1.4 Emergency telephone number:

In the UK: NHS 111 (for medical advice)
Chemical emergencies: +44 (0)870 190 6777 (National Chemical Emergency Centre, 24/7, English)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture (Regulation (EC) No 1272/2008):

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 practices.

2.2 Labelling according to Regulation (EC) No. 1272/2008

No hazardous labelling applicable

Signal word: None

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

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

Substance	CAS No	EC No	% w/w	Classification (Reg. 1272/2008
Monopropylene Glycol (MPG USP)	57-55-6	200-338-0	30	Not classified
Deionised Water	7732-18-5	231-791-2	70	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	No special measures required. If symptoms persist or in case of doubt, seek medical attention.
Inhalation	Exposure by inhalation is unlikely under normal conditions. Move person to fresh air. Seek medical attention if symptoms occur.
Ingestion	Rinse mouth. Do not induce vomiting. Give water to drink. Seek medical attention if unwell.
Skin contact	Wash skin thoroughly with soap and water. Remove contaminated clothing. Seek medical attention if irritation develops.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.

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

Mild transient irritation may occur in eyes or with prolonged skin contact.

Ingestion of large quantities may cause nausea, headache, or gastrointestinal discomfort.

No delayed or chronic effects are expected for normal exposure.

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

No specific treatment required. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:	Water spray, alcohol-resistant foam, dry chemical, or CO^2.
Unsuitable media:	Direct water jet (may spread fire).

5.2. Specific hazards arising from the substance or mixture

Specific Hazards	This product is combustible at elevated temperatures. Thermal decomposition may produce Carbon monoxide (CO) Carbon Dioxide (CO^2). Small amounts of other organic vapours. No unusual fire or explosion hazards
Protective equipment	Firefighters should wear self-contained breathing apparatus (SCBA) and full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin and eyes. Provide adequate ventilation.Spills may create slip hazard.

6.2. Environmental precautions

Environmental Precautions	Do not discharge to drains, watercourses, or soil. Contain spill to prevent environmental contamination. Large spills may cause environmental effects due to oxygen depletion.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Absorb with inert material. Place in labelled container for disposal. Wash area with water.

SECTION 7: Handling and storage

This product is designed exclusively for use in closed circuit heating, refrigeration, and cooling systems. Ensure the system is sealed to prevent vapour formation or leaks. Do not use in systems containing galvanised components unless corrosion inhibitor compatibility is confirmed.

7.1 Handling	Prevent spills; product is slippery. Avoid contact with eyes and prolonged skin contact. Use in closed or well-ventilated systems. Do not use in potable water systems. Avoid contact with galvanised metals, as uninhibited glycol solutions may attack zinc coatings. Wash hands after handling. Do not eat, drink, or smoke when using this product.

7.2. Conditions for safe storage

Storage precautions	Store in original container, tightly closed, in a cool, dry, well-ventilated place (0–40 °C). Protect from frost and direct sunlight.
7.3. Incompatible Materials	Strong oxidising agents (e.g., peroxides, chromates). Galvanised metals, uninhibited glycol mixtures may attack zinc coatings. Strong acids and strong bases.
7.4. Specific End Use	Heat-transfer fluid for closed-loop HVAC, refrigeration, and cooling systems.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters Occupational exposure limits

Workplace Exposure Limit (WEL):	Propylene Glycol (Particulates & Vapour): 150 ppm (474 mg/m³) 10 mg/m³ (particulates) TWA (UK HSE EH40)

8.2. Exposure controls

Respiratory Protection	Not required under normal conditions; use A2/P2 respirator if vapour formation likely.
Hand Protection	Nitrile or butyl rubber gloves (EN 374).
Eye Protection	Safety goggles (EN 166).
Body Protection	Overalls or chemical-resistant clothing.
Hygiene	Wash hands after use. No eating, drinking, or smoking during handling.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless, but may be dyed red or blue depending on customer preference.
Odour	Mild, characteristic.
pH @20°C	7.0 - 9.0
Melting point	approx. −32 °C
Initial boiling point and range	103°C
Flash point	>100°C (Closed Cup)
Relative density @ 20°C	1.04-1.06.
Solubility	Completely miscible with water
Auto-ignition temperature	371°C
Viscosity @ 25°C	5-10 mPa·s

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal use conditions.

10.2. Chemical stability

Stable under recommended handling and storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No hazardous polymerisation or self-reactivity expected.

10.4. Conditions to avoid

Conditions to avoid	Excessive heat (>100 °C), ignition sources, and contamination with strong oxidising agents. Avoid evaporation and concentration of glycol residues..

10.5. Incompatible materials

Materials to avoid	Strong oxidising agents (e.g., peroxides, chromates). Galvanised metals (uninhibited glycol solutions may attack zinc coatings). Strong acids and alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition	Thermal decomposition may produce carbon monoxide (CO), carbon dioxide (CO^2) , and trace organic vapours. No hazardous decomposition expected under normal handling or storage.

SECTION 11: Toxicological information

Mixture toxicity calculated based on component data in accordance with CLP Annex I

11.1. Information on toxicological effects Acute toxicity - oral

Acute toxicity (oral): Low Toxicity

LD_{50} (oral rat, MPG)	20,000 mg/kg
Skin corrosion/irritation	Not classified. Prolonged or repeated contact may cause mild irritation.
Serious eye damage/irritation	Not classified. May cause temporary eye irritation.
Respiratory irritation:	Not expected under normal conditions.
Skin sensitisation:	Not a skin sensitiser.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	No known specific target organ toxicity at normal exposure levels.

Genotoxicity / carcinogenicity

No evidence of mutagenic or carcinogenic effects.

Aspiration Hazard

Not Classified.

SECTION 12: Ecological information

12.1. Toxicity Acute aquatic toxicity	MPG - LC_{50} fish 40,000 mg/l, (low toxicity) Daphnia EC_{50} (48 h): >50,000 mg/L Algae IC_{50}: >19,000 mg/L
12.2. Persistence and degradability Persistence and degradability:	Readily biodegradable (based on data for MPG).
12.3. Bioaccumulative potential	Low (log $K_ow \approx -0.9$).
12.4. Mobility in soil	High
12.5. Results of PBT and vPvB assessment	Not applicable
12.6 Endocrine disrupting properties	Contains no substances identified as endocrine disruptors.

SECTION 13: Disposal considerations

13.1. Waste Treatment Methods

Disposal methods	Dispose of waste in accordance with local/regional regulations. Do not discharge to drains or watercourses. Empty containers may contain residues, rinse before recycling or disposal.
Waste class	Waste code (EWC): To be assigned by the user in accordance with local authority guidance.

SECTION 14: Transport information

General	Not regulated under ADR/RID/IMDG/IATA
14.1. UN number	Not Applicable
14.2. UN proper shipping name	Not Applicable
14.3. Transport hazard class(es)	None
14.4. Packing group	Not Applicable
14.5. Environmental hazards	Not classified as Marine Pollutant
14.6. Transport in bulk	Not Applicable

SECTION 15: Regulatory information

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

UK Reach	Components Compliant
CLP	Regulation (EC) No 1272/2008: See Section 2

15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out for this mixture.

No substances present above 0.1% listed on the UK REACH Candidate List (SVHC)
No specific restrictions under Reach Annex XVII

SECTION 16: Other information

General information	Follow label warnings; empty containers may retain residues. Labels should not be removed from containers until they have been cleaned and no product
Revision comments	Approved
Issued by	Compliance department
Revision date	03/12/2025
Revision	2
Supercedes date	
SDS Status	Approved
Key hazard statements	None

Abbreviations

CLP: Classification, Labelling and Packaging Regulation
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
WEL: Workplace Exposure Limit
PBT/vPvB Persistent, Bioaccumulative and Toxic / very Persistent, very Bioaccumulative