SAFETY DATA SHEET

Inhibited Glycol - MPG 98% + Inhibitor 2%

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

1.1 Product identifier

Trade name: Inhibited Glycol - MPG 98% + Inhibitor 2%

Product type: Monopropylene glycol–based antifreeze/coolant with Organic Acid Technology (OAT) inhibitors

Product code: MPG98+2

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; corrosion-protected antifreeze for chillers, solar heating, and refrigeration plants.

Uses advised against:
Use in open systems where vapours may be released; potable water or direct food contact; automotive engine coolant (different inhibitor balance required).

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
Tel: +44 (0)1244 506 860 (General Enquiries)

Email: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):

Classification: Aquatic Chronic 3 - H412: Harmful to aquatic life with long lasting effects

NOT classified for:
Acute toxicity, Skin irritation, Eye irritation (may cause mild irritation), STOT (single or repeated exposure), Reproductive toxicity

2.2 Label elements

Signal word: None

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes; remove contact lenses if easy to do.
P337 + P313 If eye irritation persists: Get medical advice.
P501 Dispose of contents/container in accordance with local regulations.

Other hazards:
Does not contain any PBT or vPvB substances.
Spilled product may increase biological oxygen demand (BOD) if released to watercourses.

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	98.04	Not classified
SureFlow COR-3 inhibitor package (contains Methyl-1H-benzotriazole)	Mixture	–	1.96	Aquatic Chronic 2 (H411)

Mixture classification: Aquatic Chronic 3 (H412), based on total inhibitor concentration.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Remove affected person from source of contamination. Keep warm and at rest
Inhalation	Move to fresh air, keep at rest. Seek medical attention if symptoms occur.
Ingestion	Rinse mouth. Do not induce vomiting. Seek medical advice.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water.
Eye contact	Rinse cautiously with water for at least 15 minutes. Seek medical attention if irritation persists.

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

General information	Mild gastrointestinal upset if ingested; possible mild eye irritation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water mist, foam, dry powder, or CO^2.

5.2. Specific hazards arising from the substance or mixture

Specific Hazards	Decomposition may produce: carbon oxides, organic vapours, nitrogen oxides, phosphorus compounds.
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. Ensure adequate ventilation.

6.2. Environmental precautions

Environmental Precautions	Avoid discharge to drains or watercourses. Although MPG is biodegradable, inhibitors are harmful to aquatic life.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Absorb with inert material (sand, vermiculite). Place in labelled container for disposal. Wash area with water.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene practices. Avoid spills, splashes, and contact with skin and eyes. Ensure adequate ventilation. Use only in closed systems designed for heat-transfer fluids.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original containers in a cool, dry, well-ventilated place (0–40 °C). Protect from frost and direct sunlight. Keep away from incompatible materials.

7.3 Specific end use(s) / Incompatible materials

Strong oxidising agents, strong acids, and galvanised metals.

Additional use guidance

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.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters Occupational exposure limits

Workplace Exposure Limit (WEL) EH40/2005:	Propylene glycol (total vapour & particulates): TWA 8h: 150 ppm (474 mg/m³) STEL: Not assigned

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 / freezing point: -59°C

Initial boiling point and boiling range: 188–189 °C

Flash point: >104–106 °C (Closed Cup)

Relative density @ 20 °C: 1.035–1.040

Solubility: Miscible with water

Auto-ignition temperature: 371 °C

Viscosity @ 25 °C: 50–60 mPa·s

SECTION 10: Stability and reactivity

10.1. Reactivity	Avoid strong oxidising agents and acids.
10.2. Chemical stability	Stable under normal conditions of use and storage.
10.3. Possibility of hazardous reactions	No hazardous reactions are expected under normal conditions of use.
10.4. Conditions to avoid	Avoid excessive heat, open flames, sparks, and other sources of ignition.
10.5. Incompatible materials	Strong oxidising agents, acids, galvanised metals.
10.6. Hazardous decomposition products	Carbon oxides, nitrogen oxides, phosphorus compounds.

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 → Not classified

Skin eye/irritation
May cause mild eye irritation.
Not a skin irritant.

Specific target organ toxicity - single exposure
STOT - single exposure Not classified
Specific target organ toxicity - repeated exposure

STOT - repeated exposure

Reproductive toxicity	Not classified
Reproductive toxicity - fertility	No evidence of fertility or developmental effects at relevant doses.

Aspiration Hazard

Aspiration Hazard	Not Classified.

SECTION 12: Ecological information

12.1 Toxicity:

MPG: LC50 (fish, 96h) = 40,000 mg/L – low aquatic toxicity.
Inhibitor package: Aquatic Chronic 2 (H411).

12.2. Persistence and degradability
Persistence and degradability: Readily biodegradable (based on data for MPG).

12.3. Bioaccumulative potential

Bioaccumulation	Low (log $K_ow \approx -0.9$).
12.4. Mobility in soil	High
12.5. Results of PBT and vPvB assessment	Not applicable

SECTION 13: Disposal considerations

13.1. Waste Treatment Methods

Disposal methods	Do not discharge to drains or watercourses. Dispose of waste via licensed waste contractor in accordance with local and national regulations..
Waste class	Waste code (EWC): To be determined by user depending on application.

SECTION 14: Transport information

14.1 UN number: Not applicable

14.2 UN proper shipping name: Not applicable

14.3 Transport hazard class(es): Not applicable

14.4 Packing group: Not applicable

14.5 Environmental hazards: Not classified as marine pollutant

14.6 Transport in bulk: Not applicable

Additional information: Not regulated under ADR/RID/IMDG/IATA

SECTION 15: Regulatory information

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

Compliant with UK REACH and CLP Regulation (EC 1272/2008).
No SVHCs >0.1%.
No applicable restrictions under REACH Annex XVII.

15.2. Chemical safety assessment

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

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	Initial release
Issued by	Compliance department
Revision date	03/12/2025
Revision	1.0
Supercedes date	
SDS Status	Approved
Key hazard statements	H412 Harmful to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. (inhibitor component)
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