

SAFETY DATA SHEET

Revision: 10 August 2020

Version number: 1

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

1.1 Product identifier	Bath and Heat Transfer Liquid Part Number BL500
1.2 Relevant identified uses of the substance or mixture and uses advised against	Heat transfer fluid in a temperature-controlled laboratory instrument. Uses advised against: not available.
1.3 Details of the supplier of the safety data sheet	QCL, Riverside, Forest Row Business Park, Forest Row, East Sussex, RH18 5DW, UK; Tel: 01342 820 820; Fax: 01342 820 825; sales@qclscientific.com; www.qclscientific.com.
1.4 Emergency telephone number	QCL: 01342 820 820 (9 am to 5 pm, Mon to Fri).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No. 1272/2008, and it is not mandatory to supply a safety data sheet, but this document contains information and advice concerning safe handling of the product.

2.2 Label elements

Signal word None.
Hazard statements None.
Precautionary statements None.
Supplemental information None.

2.3 Other hazards Not identified.

SECTION 3: Composition/information on ingredients

3.2 Mixtures ^a

Declarable components	Conc. (wt%)	EC No.	CAS No.	REACH Reg. No.	Classification
None.					
<i>Other components</i>					
Water	> 60	231-791-2	7732-18-5	NA	Not classified
Propane-1,2-diol ^b	< 40	200-338-0	57-55-6	NA	Not classified

^a NA: not available.

^b Propylene glycol (PG).

SAFETY DATA SHEET

Revision: 10 August 2020

Version number: 1

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation	Not expected route of exposure. However, if breathing difficulty, respiratory irritation, or other symptoms occur, get medical attention.
Skin	Not expected to cause adverse effects by skin contact. If irritation occurs, remove contaminated clothing and rinse affected area with water. Get medical attention. Wash contaminated clothing before re-use.
Eye	Not expected to cause adverse effects by eye contact. If irritation occurs, irrigate with room-temperature water or eyewash solution for several minutes, occasionally lifting eyelids. Get medical attention if irritation persists.
Ingestion	If swallowed, rinse mouth thoroughly and give water to drink. Get prompt medical attention for any adverse effects. Do not induce vomiting, unless instructed by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed Not expected to cause adverse effects during foreseeable use.

4.3 Indication of any immediate medical attention and special treatment needed Treat symptoms as they occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable	Product is water-based and non-flammable. Use extinguishing media appropriate to cause of the fire, and the surroundings.
Unsuitable	None.

5.2 Special hazards arising from the substance or mixture None.

5.3 Advice for firefighters Remove containers from fire-affected area or cool them with water spray. For larger fires, firefighters should wear breathing apparatus and protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Product is water-based, not classified as hazardous, and supplied in 500 mL containers. For large spills, wear personal protection. Product spills may be slippery. Follow prescribed procedures for responding to large spills and reporting to appropriate authorities.

6.2 Environmental precautions Avoid release to water courses. Product is not expected to be a risk to the environment because it is water-based, not classified as hazardous, and supplied in 500 mL containers.

6.3 Methods and material for containment and Clean up spill as soon as possible.
For small quantities, wipe off with damp cloth or paper, and wash

SAFETY DATA SHEET

Revision: 10 August 2020

Version number: 1

cleaning up	affected area with water. For large quantities, absorb with an inert material (eg sand, vermiculite). Wash contaminated surfaces with water. Collect spill, contaminated materials, and washings in a container for disposal.
6.4 Reference to other sections	For recommended personal protective equipment, see Section 8. For disposal considerations, see Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling	Avoid skin and eye contact with the product, using measures as described in Section 8.
7.2 Conditions for safe storage, including any incompatibilities	Store in a cool place away from direct sunlight.
7.3 Specific end use(s)	Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

EU limit values	None.
UK limit values	Propane-1,2-diol: WEL: 8 h TWA: total vapour and particulates, 474 mg/m ³ (150 ppm); particulates, 10 mg/m ³ .
Monitoring procedure	Not applicable.
Other: human health (DNELs, DMELs)	Propane-1,2-diol: DNEL: workers, long-term exposure, systemic effects, inhalation, 168 mg/m ³ ; workers, long-term exposure, local effects, inhalation, 10 mg/m ³ .
Other: environmental (PNEC)	Propane-1,2-diol: PNEC: freshwater, 260 mg/L; sewage treatment plant, 20 000 mg/L; soil, 50 mg/kg dry soil.

8.2 Exposure controls

Engineering controls	Engineering controls are not required for typical laboratory use.
Personal protective equipment	We recommend chemical-resistant gloves (eg nitrile rubber, PVC) and eye protection. For laboratory use, the need for personal protective equipment should be based on a workplace risk assessment for the particular use. Where more extensive contact may occur, wear protective clothing (eg lab coat, apron). PPE should be to European (EN) standards. Consult manufacturers concerning breakthrough times.
Environmental exposure controls	Not available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

SAFETY DATA SHEET

Revision: 10 August 2020

Version number: 1

Appearance	Blue liquid
Odour	None
Odour threshold	Not available
pH	6.5 to 7.5
Melting/freezing point	Not available (0 °C for water; -60 °C for PG)
Initial boiling point/range	Not available (100 °C for water; ca. 180 °C at 1013.25 hPa for PG)
Flash point	Not available (ca. 109 °C in closed cup for PG)
Evaporation rate	Not available (< 0.1 for PG; butyl acetate = 1)
Flammability (solid, gas)	Not applicable
Flamm. or expl. limits	Not available (lower explosion limit 2.6 vol%, upper explosion limit 12.6 vol% for PG)
Vapour pressure	Not available (2310 Pa at 20 °C for water; ca. 10 Pa at 20 °C for PG)
Vapour density	Not available (ca. 2 at 15 to 20 °C for PG; air = 1.0)
Relative density	Not available (1.04 at 25 °C for PG)
Solubilities	In water: product: miscible in all proportions; Other solvents: PG: soluble in ethanol and acetone; 120 g/L in diethyl ether
Partition coeff. (log K_{ow})	Not available (-1.07 at 20.5 °C for PG)
Auto-ignition temp.	Not available (> 400 °C for PG)
Decomposition temp.	Not available
Viscosity	Not available (43.4 mPa.s at 25 °C for PG)
Explosive properties	Not classified as explosive
Oxidising properties	Not classified as oxidising
9.2 Other information	Not available

SECTION 10: Stability and reactivity

10.1 Reactivity	Not available.
10.2 Chemical stability	Stable.
10.3 Possibility of hazardous reactions	Not available.
10.4 Conditions to avoid	Not available.
10.5 Incompatible materials	Not available.
10.6 Hazardous decomposition products	Not available.

SAFETY DATA SHEET

Revision: 10 August 2020

Version number: 1

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met for the oral, dermal or inhalation routes. PG: LD ₅₀ (oral; rat), 22 000 mg/kg; LD ₅₀ (skin; rabbit), >2 000 mg/kg; LC ₅₀ (mist inhalation; 2 h; rabbit), 317 042 mg/L.
Skin corrosion/irritation	Based on available data, the classification criteria are not met. PG: no skin irritation (rabbit) (OECD Test Guideline 404).
Serious eye damage/irritation	The product is not expected to meet the criteria for classification. PG: no eye irritation (rabbit) (OECD Test Guideline 405).
Respiratory or skin sensitisation	Respiratory sensitisation: no expectation of respiratory sensitisation potential. Skin sensitisation: based on available data, the classification criteria are not met. PG: does not cause skin sensitisation. (Maximisation Test; Guinea pig) (OECD Test Guideline 406).
Germ cell mutagenicity	Based on available data, the classification criteria are not met. PG: <i>in vitro</i> and <i>in vivo</i> tests did not show mutagenic effects.
Carcinogenicity	Based on available data, the classification criteria are not met. PG: animal testing did not show any carcinogenic effects.
Reproductive toxicity	Based on available data, the classification criteria are not met. PG: animal testing did not show any effects on fertility.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met. PG: in rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effects.
Aspiration hazard	Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity	The product is not expected to meet the criteria for classification. PG: LC ₅₀ (freshwater fish, 96 h), 40 613 mg/L (static test; OECD Test Guideline 203). EC ₅₀ (Daphnia, 48 h), 18 340 mg/L (static test; OECD Test Guideline 202); NOEC (Daphnia reproduction, 7 d), 13 020 mg/L (semi-static test). E _r C ₅₀ (algae, 96 h), 19 000 mg/L (static test; OECD Test Guideline 201). NOEC (bacteria, 18 h), > 20 000 mg/L.
12.2 Persistence and degradability	PG: readily biodegradable, 81.7% (28 d) (OECD Test Guideline 301F).
12.3 Bioaccumulative potential	PG: low potential bioaccumulation, BCF 0.09.
12.4 Mobility in soil	Not available.
12.5 Results of PBT and	PG: not PBT or vPvB.

SAFETY DATA SHEET

Revision: 10 August 2020

Version number: 1

vPvB assessment**12.6 Other adverse effects** Not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods Product is a non-hazardous aqueous solution, and small quantities may be diluted and disposed of via the drains. Incineration or landfill may be appropriate for large quantities.

Disposal must be in accordance with current national and local regulations. Chemical residues generally count as special waste. General EU requirements are given in Directive 2008/98/EC.

SECTION 14: Transport information

14.1 UN Number Not classified as dangerous goods for transport.

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/environmentally hazardous.

14.6 Special precautions for user Not available.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture *UK:* Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended (also implementing 90/394/EEC on carcinogens at work). COSHH Essentials: Easy Steps to Control Chemicals; HSE Books 2003 (also available on the HSE web site). Workplace Exposure Limits EH40/2005 (Third edition, 2018); Health and Safety Executive.

15.2 Chemical safety assessment Not available.

SECTION 16: Other information

Revisions This SDS is the first version in EU CLP format.

Abbreviations DNEL, derived no-effect level; DMEL, derived minimum effect level; EC, effect concentration; LC, lethal concentration; LD, lethal dose; NOEC, no-observed-effect-concentration; OECD, Organisation for Economic Co-operation and Development; PBT, persistent, bioaccumulative, and toxic; PG, propylene glycol; PNEC, predicted no-effect concentration;

SAFETY DATA SHEET

Revision: 10 August 2020

Version number: 1

	STOT RE, specific target organ toxicity repeated exposure; STOT SE, specific target organ toxicity single exposure; vPvB, very persistent, very bioaccumulative; WEL, UK workplace exposure limit.
References	Search for chemicals; available at the European Chemicals Agency website: http://echa.europa.eu/ . GESTIS Substance Database; Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA); http://www.dguv.de/ifa/GESTIS/index-2.jsp .
Basis of classification	The mixture is self-classified from available information on the ingredients.
List of hazard statements	None.