

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance/preparation	Couplant B-2
Use of the substance/preparation	Couplant.
Version No.	01
CAS No.	56-81-5
Manufacturer	
Supplier	Olympus
Address	48 Woerd Ave. Waltham, MA 02453, USA
Telephone	+1 781-419-3900
Emergency telephone number	CHEMTREC US: 1-800-424-9300, International: +1 703-527-3887

2. HAZARDS IDENTIFICATION

Physical hazards	Not classified as a physical hazard.
Health hazards	Not classified as a health hazard.
Environmental hazards	Not classified as an environmental hazard.
Specific hazards	Direct contact with eyes may cause temporary irritation. May cause respiratory irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Percent	EC-No.	Classification
Glycerol	56-81-5	100	200-289-5	

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. FIRST-AID MEASURES

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth thoroughly. Get medical attention if symptoms occur.
General advice	If you feel unwell, seek medical advice (show the label where possible).

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Extinguishing media which must not be used for safety reasons	None known.
Unusual fire & explosion hazards	Will burn if involved in a fire.
Specific hazards	By heating and fire, harmful vapours/gases may be formed.
Special protective equipment for fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
Hazardous combustion products	Acrolein.
General fire hazards	Will burn if involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

Containment procedures	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.
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Personal precautions	Ensure adequate ventilation. Avoid prolonged exposure. Keep unnecessary personnel away. In case of spills, beware of slippery floors and surfaces. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). After cleaning, flush away traces with water. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Handling	Provide adequate ventilation. Avoid prolonged exposure. Avoid breathing mist or vapour. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Storage	Store in closed original container at temperatures between 18°C and 54°C. Store away from incompatible materials (see section 10 of the SDS).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	
Additional exposure data	Not available.
Engineering measures	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Personal protective equipment	
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Hand protection	For prolonged or repeated skin contact use suitable protective gloves. Suitable gloves can be recommended by the glove supplier.
Eye protection	If contact is likely, safety glasses with side shields are recommended. Eye wash fountain is recommended.
Skin and body protection	Wear suitable protective clothing.
Environmental exposure controls	Environmental manager must be informed of all major releases.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	Liquid.
Form	Viscous.
Colour	Clear.
Odour	Mild.
pH	Not available.
Melting point/freezing point	19.85 °C (67.73 °F)
Boiling point, initial boiling point, and boiling range	290 °C (554 °F)
Flash point	198.9 °C (390.0 °F) Closed cup
Auto-ignition temperature	Not available.
Flammability limit - lower (%)	2.6
Flammability limit - upper (%)	11.3
Vapour pressure	< 0.13 kPa
Vapour density	3.1 (Air = 1)
Evaporation rate	> 1 (Ether (anhydrous) =1)
Solubility(ies)	
Solubility (water)	Soluble in water.
Partition coefficient (n-octanol/water)	-1.76
Decomposition temperature	Not available.
Molecular weight	92.09 g/mol

Other data

Molecular formula	C3-H8-O3
Relative density	1.4 - 1.6

10. STABILITY AND REACTIVITY

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport. Hygroscopic.
Conditions to avoid	Excessive heat. Ignition sources.
Hazardous decomposition products	Hygroscopic
Stability	Material is stable under normal conditions..
Materials to avoid	Strong oxidising agents.
Hazardous polymerisation	No dangerous reaction known under conditions of normal use.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Product	Species	Test results
Glycerol (CAS 56-81-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 10 g/kg
<i>Oral</i>		
LD50	Rat	12600 mg/kg
Acute toxicity	Not expected to be acutely toxic.	
Routes of exposure	Inhalation. Skin contact. Eye contact. Ingestion.	
Toxicological information	Occupational exposure to the substance or mixture may cause adverse effects.	
Sensitisation	Not classified.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Reproductivity	This product is not expected to cause reproductive or developmental effects.	
Epidemiology	No epidemiological data is available for this product.	
Local effects	High mist concentrations may cause irritation of respiratory tract. Direct contact with eyes may cause temporary irritation.	
Symptoms and target organs	Direct contact with eyes may cause temporary irritation. May cause respiratory irritation.	

12. ECOLOGICAL INFORMATION

Ecotoxicological data

Product	Species	Test results	
Glycerol (CAS 56-81-5)			
Aquatic			
Fish	LC50	Fish	54000 mg/l, 96 hours
Ecotoxicity	The product is 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.		
Persistence and degradability	The product is readily biodegradable.		
Bioaccumulation	The product is not bioaccumulating.		
Mobility	No data available for this product.		
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

13. DISPOSAL CONSIDERATIONS

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. REGULATORY INFORMATION

Labelling

Contains	Glycerol
EC number	200-289-5
R-phrases(s)	None.
S-phrases(s)	S24/25 Avoid contact with skin and eyes.

16. OTHER INFORMATION

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Disclaimer

Olympus cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Prepared by

Olympus

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