



# SAFETY DATA SHEET


## 1. Identification

<b>Product identifier</b>	<b>Couplant B-2</b>
<b>Other means of identification</b>	None.
<b>Recommended use of the chemical and restrictions on use</b>	
<b>Recommended use</b>	Couplant.
<b>Restrictions on use</b>	Not available.
<b>Details of manufacturer or importer</b>	
<b>Supplier</b>	Olympus Australia Pty Ltd
<b>Address</b>	3 Acacia Place, Notting Hill, Victoria 3168, Australia
<b>Telephone</b>	Tel: +61 130-013-2992, Fax: +61 395-431-350
<b>e-mail</b>	
<b>Emergency telephone number</b>	CHEMTREC US: 1-800-424-9300, International: +1 703-527-3887

## 2. Hazard(s) identification

<b>Classification of the hazardous chemical</b>	
<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Specific target organ toxicity following single exposure Category 3 respiratory tract irritation
<b>Environmental hazards</b>	Not classified.

### Label elements, including precautionary statements

<b>Hazard symbol(s)</b>	
	Exclamation mark
<b>Signal word</b>	Warning
<b>Hazard Statement(s)</b>	May cause respiratory irritation.
<b>Precautionary Statement(s)</b>	
<b>Prevention</b>	Avoid breathing mist or vapour. Use only outdoors or in a well-ventilated area.
<b>Response</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards which do not result in classification</b>	None known.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

Substance		CAS number and other unique identifiers	Concentration of ingredients
Identity of chemical ingredients			
Glycerol		56-81-5	100

**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

### Description of necessary first aid measures

<b>Inhalation</b>	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.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth thoroughly. Get medical attention if symptoms occur.
<b>Personal protection for first-aid responders</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
<b>Symptoms caused by exposure</b>	Direct contact with eyes may cause temporary irritation. May cause respiratory irritation.
<b>Medical attention and special treatment</b>	Treat symptomatically.

## 5. Fire-fighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	By heating and fire, harmful vapours/gases may be formed.
<b>Special protective equipment and precautions for fire fighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Hazchem Code</b>	None.
<b>General fire hazards</b>	Will burn if involved in a fire.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	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.
<b>For emergency responders</b>	Keep unnecessary personnel away. Be aware of potential for surfaces to become slippery. Use personal protection recommended in Section 8 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.
<b>Methods and materials for containment and cleaning up</b>	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

<b>Precautions for safe handling</b>	Provide adequate ventilation. Avoid prolonged exposure. Avoid breathing mist or vapour. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	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 and personal protection

<b>Control parameters</b>	Follow standard monitoring procedures.
<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	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.

## Individual protection measures, for example personal protective equipment (PPE)

<b>Eye/face protection</b>	If contact is likely, safety glasses with side shields are recommended. Eye wash fountain is recommended.
<b>Skin protection</b>	
<b>Hand protection</b>	For prolonged or repeated skin contact use suitable protective gloves. Suitable gloves can be recommended by the glove supplier.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	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

<b>Physical state</b>	Liquid.
<b>Form</b>	Viscous.
<b>Colour</b>	Clear.
<b>Odour</b>	Mild.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	19.85 °C (67.73 °F)
<b>Initial boiling point and boiling range</b>	290 °C (554 °F)
<b>Flash point</b>	198.9 °C (390.0 °F) Closed cup
<b>Evaporation rate</b>	> 1 (Ether (anhydrous) =1)
<b>Flammability (solid, gas)</b>	Not applicable.

### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	2.6
<b>Flammability limit - upper (%)</b>	11.3
<b>Vapour pressure</b>	< 0.13 kPa
<b>Vapour density</b>	3.1 (Air = 1)
<b>Relative density</b>	1.4 - 1.6
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Soluble in water.
<b>Partition coefficient (n-octanol/water)</b>	-1.76
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

### Other physical and chemical parameters

<b>Explosive properties</b>	Not explosive.
<b>Molecular formula</b>	C3-H8-O3
<b>Molecular weight</b>	92.09 g/mol
<b>Oxidising properties</b>	Not oxidising.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport. Hygroscopic.
<b>Chemical stability</b>	Material is stable under normal conditions..

<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Excessive heat. Ignition sources.
<b>Incompatible materials</b>	Strong oxidising agents.
<b>Hazardous decomposition products</b>	Hygroscopic

## 11. Toxicological information

### Information on possible routes of exposure

<b>Inhalation</b>	High mist concentrations may cause irritation of respiratory tract.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to exposure** Direct contact with eyes may cause temporary irritation. May cause respiratory irritation.

**Acute toxicity** Not expected to be acutely toxic.

Product	Species	Test results
Glycerol (CAS 56-81-5)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 10 g/kg
<i>Oral</i>		
LD50	Rat	12600 mg/kg

**Skin corrosion/irritation** No adverse effects due to skin contact are expected.

**Serious eye damage/irritation** Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitisation

**Respiratory sensitisation** Due to lack of data the classification is not possible.

**Skin sensitisation** This product is not expected to cause skin sensitisation.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Not an aspiration hazard.

## 12. Ecological information

**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.

Product	Species	Test results
Glycerol (CAS 56-81-5)		
<b>Aquatic</b>		
Fish	LC50 Fish	54000 mg/l, 96 hours

**Persistence and degradability** The product is readily biodegradable.

**Bioaccumulative potential** The product is not bioaccumulating.

**Mobility in soil** 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 methods** Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

**Residual waste** 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

### ADG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

### 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

### Safety, health and environmental regulations

**National regulations** No poison schedule number allocated. This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (23/12/2011).

#### High Volume Industrial Chemicals (HVIC)

Glycerol (CAS 56-81-5)

1000 - 9999 TONNES See the regulation for additional information.

#### Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

Not listed.

#### National Pollutant Inventory (NPI) substance reporting list

Not listed.

#### Prohibited Carcinogenic Substances

Not regulated.

#### Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

#### Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

#### Restricted Carcinogenic Substances

Not regulated.

### International regulations

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto protocol

Not applicable.

#### Montreal Protocol

Not applicable.

#### Basel Convention

Not applicable.

### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

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
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*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).

## 16. Other information

**Issue date** 11-August-2016

**Revision date** -

### Key abbreviations or acronyms used

LD50: Lethal Dose 50%.

LC50: Lethal Concentration 50%.

### 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.