

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

Identification of the substance/preparation	High Temperature Couplant I-2
Use of the substance/preparation	Couplant.
Version No.	01
CAS No.	Mixture
Product code	I-2/Q7700011
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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Percent	EC-No.	Classification
Lubricant	60164-51-4	> 90		
Silicon dioxide	7631-86-9	< 5	231-545-4	

4. FIRST-AID MEASURES

Inhalation	Move to fresh air. 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. Get medical attention if symptoms occur.
General advice	Exposure to hot material may cause thermal burns. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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.
Specific hazards	During fire, gases hazardous to health may be formed. Hydrogen fluoride.
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	Hydrogen fluoride.

6. ACCIDENTAL RELEASE MEASURES

Containment procedures	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.
Personal precautions	Avoid prolonged exposure. Keep unnecessary personnel away. In case of spills, beware of slippery floors and surfaces. 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	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	Avoid prolonged exposure. Do not breathe vapour from heated material. Observe good industrial hygiene practices. It is a good industrial hygiene practice to minimise skin contact.
Storage	Store in original tightly closed container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Egypt. OELs. Threshold limits of air pollutants in the workplace (Decree No. 388, Annex 8)

Components	Type	Value
Silicon dioxide (CAS 7631-86-9)	TWA	20 mp/ft3

Kenya. OEL-RL. Recommended Limit for Hazardous Chemical Substances (The Factories and Other Places of Work Rules in 2007 of the Factories and Other Places of Work Act (CAP. 514))

Components	Type	Value	Form
Silicon dioxide (CAS 7631-86-9)	TWA	6 mg/m3	Total inhalable dust.
		3 mg/m3	Respirable dust.

South Africa. Recommended Exposure Limits (RELs) Regulations for Hazardous Chemical Substances, Table 2

Components	Type	Value	Form
Silicon dioxide (CAS 7631-86-9)	TWA	6 mg/m3	Total inhalable dust.
		3 mg/m3	Respirable dust.

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. General ventilation normally adequate.

Personal protective equipment

Respiratory protection In case of inadequate ventilation or risk of inhalation of vapours, use 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	Grease.
Colour	Off-white.

Odour None.

pH Not available.

Melting point/freezing point -51.11 °C (-60 °F)

Boiling point, initial boiling point, and boiling range Not available.

Flash point Non flammable.

Auto-ignition temperature	> 704.44 °C (> 1300 °F)
Combustion characteristics (solid, gas)	Not applicable.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	< 0.001 torr (25 °C)
Vapour density	> 1
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	12 - 13 mPa·s
Other data	
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
Relative density	1.85

10. STABILITY AND REACTIVITY

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Conditions to avoid	None known.
Hazardous decomposition products	In case of fire: Hydrogen fluoride.
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
High Temperature Couplant I-2 (CAS Mixture)		
Acute		
<i>Dermal</i>		
ALD	Rabbit	> 17000 mg/kg
<i>Oral</i>		
LD50	Rat	> 30000 mg/kg
Acute toxicity	Expected to be a low ingestion hazard.	
Routes of exposure	Skin contact. Eye contact.	
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	Due to lack of data the classification is not possible.	
Epidemiology	No epidemiological data is available for this product.	
Local effects	Direct contact with eyes may cause temporary irritation.	
Symptoms and target organs	Direct contact with eyes may cause temporary irritation.	

12. ECOLOGICAL INFORMATION

Ecotoxicological data

Product	Species	Test results
High Temperature Couplant I-2 (CAS Mixture)		
Aquatic		
Fish	Oncorhynchus mykiss	> 1000 mg/l
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	No data is available on the degradability of this product.
Bioaccumulation	The product is not expected to bioaccumulate.
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	
R-phrases(s)	None.
S-phrases(s)	S25 Avoid contact with eyes.
	Safety data sheet available for professional user on request.

16. OTHER INFORMATION

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
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
Issue date	23-August-2016
Revision date	-