



SAFETY DATA SHEET

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

Identification of the substance/preparation VOLSEAL® CONNECT ADHESIVE
Version No. 01
Revision date 09-May-2010
CAS # Mixture
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2. HAZARDS IDENTIFICATION

This preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification Xi, Xn, R20, R36/37/38, R42/43
Physical hazards Not classified as a physical hazard.
Health hazards Harmful by inhalation. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.
Environmental hazards Not classified as an environmental hazard.
Specific hazards May cause sensitisation by inhalation and skin contact. Certain pre-existing conditions may make workers particularly susceptible to the effects of this chemical: asthma, allergies, impaired pulmonary function. Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent	EC-No.	Classification
POLYMETHYLENE POLYPHENYLENE ISOCYANATE	9016-87-9	60 - 80		R14
Other components below reportable levels		20 - 40		

Composition comments For the full text of the R phrases mentioned in this Section, see Section 15.

4. FIRST-AID MEASURES

Inhalation If inhalation of gas/fume/vapour/dust/mist from the material is excessive (air concentration is greater than the TLV or health effects are noticed), immediately remove the affected person(s) to fresh air. Get medical attention immediately. Keep victim warm. If the affected person is not breathing, apply artificial respiration. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Skin contact Wash affected area with mild soap and water. Remove and isolate contaminated clothing and shoes. Launder contaminated clothing before reuse. Get medical attention if irritation develops or persists.

Eye contact Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Ingestion If swallowed, seek medical advice immediately and show this container or label. Have victim rinse mouth thoroughly with water. If swallowed, do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Aspiration may cause pulmonary oedema and pneumonitis.

General advice If you feel unwell, seek medical advice (show the label where possible). Symptoms of poisoning may only appear several hours later. Keep victim under observation.

Notes to physician Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Keep under medical supervision for at least 48 hours.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Dry chemical, foam, carbon dioxide.

Unusual fire & explosion hazards	Container may explode in heat of fire.
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Fire fighting equipment/instructions	Containers can build up pressure if exposed to heat (fire). Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Move containers from fire area if you can do it without risk.
Hazardous combustion products	Irritating and toxic gases or fumes may be released during a fire.

6. ACCIDENTAL RELEASE MEASURES

Containment procedures	Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.
Personal precautions	Ensure adequate ventilation. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions	Do not flush into surface water or sanitary sewer system. Do not contaminate water. Runoff from fire control or dilution water may cause pollution.
Methods for cleaning up	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Ventilate the contaminated area. Clean contaminated surface thoroughly. After removal flush contaminated area thoroughly with water. Wear appropriate protective equipment and clothing during clean-up.

7. HANDLING AND STORAGE

Handling	Use this product with adequate ventilation. Keep this product from heat, sparks, or open flame. When using do not eat or drink.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep at temperatures between 10 and 48°C. Never allow product to get in contact with water during storage. Purge open drums with nitrogen before resealing. Keep out of the reach of children. Keep this material away from food, drink and animal feed.
Further information	Keep containers dry and tightly closed to avoid moisture absorption and contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Personal protective equipment	
Respiratory protection	If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.
Hand protection	Protective gloves.
Eye protection	Wear safety glasses with side shields (or goggles) and a face shield.
Skin and body protection	Where contact is likely, wear chemical-resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield. Recommended gloves include rubber, neoprene, nitrile or viton.
General	Repeated exposure may lead to respiratory sensitisation reactions, producing an asthma-like condition.
Hygiene measures	When using, do not eat, drink or smoke. Avoid contact with skin. Avoid contact with eyes. Keep away from food and drink. Avoid contact with the skin and the eyes. Handle in accordance with good industrial hygiene and safety practices. When using do not smoke. When using do not eat or drink.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Not available.
Physical state	Liquid.
Form	Liquid.
Color	Dark brown.
Odor	Musty.
Odor threshold	Not available.
pH	Not available.
Boiling point	> 300 °C (> 572 °F)
Flash point	> 200 °C (> 392 °F) Tag closed cup

Flammability	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	0 hPa estimated
Relative density	1.1 - 1.3 g/cm ³
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Viscosity	70 - 100 mPa·s @ 25 C
Vapor density	8.5
Evaporation rate	Not available.
Melting point	Not available.
Freezing point	Not available.
Auto-ignition temperature	> 400 °C (> 752 °F)
Specific gravity	1.1 - 1.3 @ 20 C

10. STABILITY AND REACTIVITY

Chemical stability	Stable at normal conditions.
Conditions to avoid	Keep away from water. Exposure to moisture. Direct sources of heat.
Incompatible materials	Water. Acids. Alcohols Amides. Amines. Ammonia. Caustics. Glycol.
Hazardous decomposition products	Nitrogen oxides (NO _x). Carbon monoxide.
Possibility of hazardous reactions	Hazardous polymerisation can occur with elevated temperatures.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Product	Test results
VOLSEAL® CONNECT ADHESIVE (Mixture)	Acute Dermal LD50 Rabbit: 11750 mg/kg estimated Acute Inhalation LC50 Rat: 613 mg/l/4h estimated

* Estimates for product may be based on additional component data not shown.

Sensitisation	May cause sensitisation by inhalation and skin contact.
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12. ECOLOGICAL INFORMATION

Ecotoxicity	Components of this product have been identified as having potential environmental concerns.
Environmental effects	Based on the physical properties of this product, significant environmental persistence and bioaccumulation can be expected. Harmful to aquatic life.
Aquatic toxicity	May cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Disposal instructions	Dispose in accordance with all applicable regulations. Dispose of this material and its container to hazardous or special waste collection point. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.
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14. TRANSPORT INFORMATION

ADR

Not regulated as dangerous goods.

IATA

Not regulated as hazardous goods.

IMDG

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

Labeling

Symbol(s)

Xn



Harmful

R-phrases(s)

R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R42/43 May cause sensitization by inhalation and skin contact.

S-phrases(s)

S1/2 Keep locked up and out of the reach of children.
S13 Keep away from food, drink and animal feeding stuffs.
S23 Do not breathe fumes, vapour.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37 Wear suitable protective clothing and gloves.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S60 This material and its container must be disposed of as hazardous waste.
S63 In case of accident by inhalation: remove casualty to fresh air and keep at rest.
S64 If swallowed, rinse mouth with water (only if the person is conscious).

Inventory status

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

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. OTHER INFORMATION

Further information

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

List of relevant R phrases

R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R42/43 May cause sensitization by inhalation and skin contact.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.

Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Prepared by

EHS Department

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Other information

CETCO is an AMCOL International company.