

Safety Data Sheet

According to 1907/2006/EC (REACH) and 1272/2008/EC (CLP)

Printing Date: 4/10/2015

Revision: 4/15/2015

Trade Name: HERMETIC™ 4.8S Urethane – Thermal Shock Resistant Slurry - Part B

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

1.1 Product identifier

Trade Name: HERMETIC™ 4.8S Urethane - Part B

1.2 Article No: HERMETIC™ 4.8S Urethane - Part B

1.3 Details of the supplier of the Safety Data Sheet Manufacturer:

Elite Crete Systems
1151 Transport Drive
Valparaiso, IN 46383
Toll Free: 888.323.4445
Tel: (219) 465-7671
Fax: (219) 531-0898
www.elitecrete.com

1.4 Emergency telephone number:

CHEMTREC US DOMESTIC: (800-424-9300)
CHEMTREC INTERNATIONAL: (703-527-3887)

2 Hazards identification

2.1 Classification of the substance or mixture According to 2012 OSHA hazard Communication Standard: 29 CFR part 1910.1200

Classification according to Regulation (EC) No 1272/2008 and GHS:

Acute Toxicity.	Category 4 (Inhalation-Mist)	Acute toxicity
Eye Dam./Irrit.	Category 2B	Serious eye damage/eye irritation
Skin Corr./Irrit.	Category 2	Skin corrosion/irritation
Skin Sens.	Category 1B	Skin Sensitization
Resp. Sens.	Category 1	Respiratory Sensitization
Carc.	Category 2	Carcinogenicity
STOT SE	Category 3 (irritating to respiratory sys.)	Specific target organ tox. - single exposure
STOT RE	Category 2 (by inhalation)	Specific target organ tox. - repeated exposure

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008:

Hazard pictograms:



GHS05 GHS08

Signal word: Danger

Hazard Statements:

H320: Causes eye irritation.
H315: Causes skin irritation
H332: Harmful if inhaled
H317: May cause allergic skin reaction
H335: May cause respiratory irritation
H351: Suspected of causing cancer
H373: May cause damage to organs (Olfactory organs) through prolonged or repeated exposure (inhalation)

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Precautionary Statements: (Prevention):

Prevention

P280: Wear protective gloves/protective clothing/eye & face protection

P271: Use only outdoors or in well-ventilated areas

P260: Do not breath dust/gas/mist/vapors

P201: Obtain special instructions before use

P261: Avoid breathing dust

P202: Do not handle until all safety precautions have been read and understood

P284: (In case of inadequate ventilation) wear respiratory protection

P272: Contaminated work clothing should not be allowed out of the work place

P264: Wash hands thoroughly after handling

Precautionary Statements: (Response):

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+P311: IF exposed or concerned: Call a POISON CENTER or doctor/physician

P314: Get medical advice/attention if you feel unwell

P303+P362: IF ON SKIN (or hair): Wash with plenty of soap and water

P333+P311: If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician

P362_P364: Take off contaminated clothing and wash before reuse

P332_P313: If skin irritation occurs, Get medical advice/attention

P337_P311: If eye irritation persists: Call a POISON CENTER or doctor /physician

P310+P330: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

Precautionary statements: (Storage):

P403+P223+P403: Store in a well-ventilated place. Keep container tightly closed. Store locked up

Precautionary statements: (Disposal):

P501: Disposal of contents/container to be specified in accordance with State, Federal and Local regulations.

Hazards not otherwise classified:

No specific dangers known. If the regulations/notes for storage and handling are considered.

Labeling of special preparations GHS:

CONTAINS ISOCYANATES. INHALATION OF ISOCYANATE MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION. OVEREXPOSURE WELL ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ALLERGIC RESPIRATORY REACTIONS INCLUDING WEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING. ANIMAL TESTS INDICATE THAT SKIN CONTACT MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION.

According to Regulation 1994 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200

Emergency overview;

DANGER

CONTAINS ISOCYANATES. INHALATION OF ISOCYANATE MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION. OVEREXPOSURE WELL ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN REPORTED TO CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ALLERGIC RESPIRATORY REACTIONS INCLUDING WEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING. ANIMAL TESTS INDICATE THAT SKIN CONTACT MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION
AVOID CONTACT WITH SKIN AND EYES. SKIN OR EYE CONTACT MAY CAUSE IRRITATION.

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3 Composition/ Information on Ingredients

According to regulation 2012 OSHA Hazard Communication Standard 29 CFR Part 1910.1200

<u>CAS Number</u>	<u>Chemical name</u>	<u>Content (W/W)</u>
101-68-8	Diphenylmethane-4,4'-diisocyanate (MDI)	25% - 50%
17589-24-1	1,3-Diazetidone-2,4-dione, 1,3-bis(4-(4- Isocyanatophenyl) Methyl)-	1% - 3%
26447-40-5	Methylenediphenyl Diisocyanate	3% - 7%
57636-09-6	Isocyanic acid, polymethylenepolyphenylene ester	1% - 3%
9016-87-9	P-MDI	50% - 75%

According to regulation 1994 OSHA Hazard Communication Standard 29 CFR Part 1910.1200

101-68-8	Diphenylmethane-4,4'-diisocyanate (MDI)	25% - 50%
17589-24-1	1,3-Diazetidone-2,4-dione, 1,3-bis(4-(4- Isocyanatophenyl) Methyl)-	1% - 3%
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57636-09-6	Isocyanic acid, polymethylenepolyphenylene ester	1% - 3%
9016-87-9	P-MDI	50% - 75%

Hazard description:

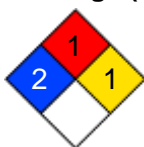
Canadian WHMIS Classification:

non corrosive, non hazardous

WHMIS-symbols:

None required

NFPA ratings (scale 0 – 4)



Health = 2
Fire = 1
Reactivity = 1

HMIS-ratings (scale 0 – 4)

Health	2
Fire	1
Reactivity	1

Health = 2
Fire = 1
Reactivity = 1

2.3 Other hazards

No known

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4 First Aid measures

4.1 Description of first aid measures

After inhalation:

If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if breathing difficulty continues.

After skin contact:

Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder contaminated clothing before re-use.

After eye contact:

If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation develops.

After swallowing:

If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or MSDS with the victim to the health professional.

4.2 Most important symptoms and effects, both acute and delayed. Also see labelling

Acute: This material may cause irritation to the respiratory tract and skin and even burns. Product may cause an allergic skin reaction.

Chronic: Prolonged or repeated skin contact may cause dermatitis.

Hazards: Pre-existing skin or respiratory system problems may be aggravated by exposure to this product.

4.3 Indication of any immediate medical attention and special treatment needed:

Treat symptoms and reduce over-exposure.

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

Carbon dioxide, foam, dry chemical, halon, water spray, sand, limestone powder.

5.2 Special hazards arising from the substance or mixture:

Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gas. Burning produces toxic and toxic fumes. Downwind personnel must be evacuated.

5.3 Advice for firefighters:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Personnel should be trained for spill response operations.

6.2 Environmental precautions: All work practices must be aimed at eliminating environmental contamination.

6.3 Methods and material for containment and cleaning up: Contain spill if safe to do so. Prevent entry into drains, sewers, and other waterways. Soak up with a non-combustible absorbent material and place in an appropriate container for disposal. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

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7 Handling and storage

7.1 Precautions for safe handling

As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors/mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

. Do not store near acids and bases... keep containers tightly closed in a cool dry and well ventilated place.

7.3 Specific end use(s): keep from freezing.

8 Exposure controls/personal protection

Additional information about design of technical facilities:

Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

Use local exhaust ventilation to control airborne vapor. Ensure eyewash/safety shower stations are available near areas where this product is used.

8.1 Control parameters

Components with occupational exposure limits

Diphenylmethane-4m4'-	OSHA PEL	CVL 0.02 ppm 0.2 mg/m ³ ; CVL 0.02 ppm 0.2 mg/m ³
Diisocyanate (MDI)	ACGIH TLV	TWA value 0.005 ppm;
P-MDI	OSHA PEL	CLV 0.02 ppm 0.2 mg/m ³ ; CLV 0.02 ppm 0.2 mg/m ³
	ACGIH TLV	TWA value 0.005 ppm;
Isocyanic acid	OSHA PEL	CLV 0.02 ppm 0.2 mg/m ³ ; CLV 0.02 ppm 0.2 mg/m ³
Polymethylenepolyphenylene ester (P-MDI)	ACGIH TLV	TWA value 0.005 ppm

Personal protective equipment

Provide local exhaust ventilation to maintain recommended P.E.L.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.



Face mask

Respiratory protection: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.



Protective gloves

Protection of hands: Use chemical resistant gloves to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

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Material of gloves:

The selection of suitable gloves does not only depend on the material, but also on the quality, and varies from manufacturer to manufacturer.



Safety goggles

Eye protection: Safety glasses or chemical goggles as appropriate to prevent eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

Body Protection:

Use body protection appropriate to prevent contact (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:

Liquid

Color:

Dark amber to brown liquid

Odor:

faint odor aromatic

Odor threshold:

Not Available

pH-value:	N/A
Change in condition	
Melting point/Melting range:	No data available
Boiling point/Boiling range:	392°F (200°C)
Flash point: (open cup)	428 °F (220°C)
Flammability (solid, gaseous):	Not flammable
Auto/Self-ignition temperature:	482°F (250°C)
Decomposition temperature:	No data available
Self-igniting:	Not self igniting
Danger of explosion:	N/A
Explosion limits	
Lower:	Not established
Upper:	Not established
Vapor pressure at 20 °C:	0.00016 mmHg

Density at 20°C:	122g/cm ³
Relative density:	10.3 pounds per gallon @ 25°C
Vapor density:	No data available
Evaporation rate:	No data available
Solubility in / Miscibility with Water:	Reacts with water
Specific Gravity 20oC: (Water = 1):	Not Available
Viscosity:	200 cps (200mPa) @ 77°F

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Solvent content:

Organic solvents: 0

VOC (EC) 0.00%

9.2 Other information No data available

10 Stability and reactivity

10.1 Reactivity

Corrosion to metals:

No corrosive effect on metal

Oxidizing properties:

Not-fire propagating

10.2 Chemical stability:

Product is stable if stored and handled as prescribed/indicated.

10.3 Possibility of hazardous reactions:

Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols. Reacts with acids. Reacts with alkalis. Reacts with amines. Risk of exothermic reaction. Risk of polymerization.

Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.

10.4 Conditions to avoid:

Avoid moisture

10.5 Incompatible materials:

Acids, amines, alcohols, water, alkalis, strong bases, Substances/products that react with isocyanates.

10.6 Hazardous decomposition products:

Hazardous decomposition products: carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gasses/vapors.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11 Toxicological information

11.1 Information on toxicological effects: Toxicity data is available for this product

Primary routes of exposure:

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact.

Routes of entry for gasses include inhalation and eye contact. Skin contact may be a route of entry for Liquefied gasses.

Acute toxicity effects:

Assessment of acute toxicity. Inhalation of vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Inhalation exposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, on the onset of which may be delayed.

ORAL

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Type of value LD50

Species: rat (male/female)

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Value: > 2,000 mg/kg (Directive 84/449/EEC, B.1)

Inhalation

Type of value: LC50

Species: rabbit (male/Female)

Value: 9,400 mg/kg

Dermal

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Type of value: LD50

Species: rat (male/Female)

Value: 2.0 mg/l (OECD Guideline 403)

An aerosol was tested.

Assessment other acute effects

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

Irritation / corrosion

Assessment of irritating effects: irritating to eyes, respiratory system and skin. Skin contact may result in dermatitis, either irritative or allergic.

Skin

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Species: Rabbit

Result: Irritating

Method: Draize test

Eye

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Species: Rabbit

Result: Irritating

Method: Draize test

Sensitization

Assessment of sensitization. Sensitization after skin contact is possible. The substance may cause sensitization of the respiratory tract. As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PEL?TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent. Prolonged contact can cause reddening, swelling, rash, scaling, or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material, or even as a result of vapor-only exposure. Animal tests indicate that skin contact may play a role in causing respiratory sensitization.

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Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Buehler test:

Species Guinea pig

Result: Sensitizing

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Result: sensitizing

Other

Species: Guinea Pig

Result: sensitizing

Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.

Chronic toxicity effects:

Repeated dose toxicity:

Assessment of repeated dose toxicity. The substance may cause damage to the olfactory epithelium after repeated inhalation. The substance may cause damage to the lung. These effects are not relevant to humans at occupational levels of exposure. after repeated inhalation.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Experimental/calculated data: rat (Wistar) (male/female) Inhalation 2 years, 6 hr/day 0, 0.2, 1, 6 mg/m³, olfactory epithelium

NOAEL: 0.2 mg/m³

LOAEL: 1 mg/m³

The substance may cause damage to the olfactory epithelium after repeated exposure. These effects are not relevant to humans at occupational levels of exposure. Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Generic toxicity

Assessment of mutagenicity. The substance was mutagenic in various bacterial test systems; However, these results could not be confirmed in tests with mammals.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Genetic toxicity in vitro: OECD Guideline 471 Ames-test Salmonella hyphimunium: with and without metabolic activation ambiguous

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Genetic toxicity in vitro: OECD Guideline 474 Micronucleus assay rat (male) inhalation negative

No clastogenic effect reported

Carcinogenicity

Assessment of carcinogenicity. A carcinogenic potential cannot be excluded after prolonged exposure to severely irritating concentrations. These effects are not relevant to humans at occupational levels of exposure' Experimental/calculated data: OECD Guideline 453 rat inhalation 0, 0.2, 1 6 mg/m³

Result: lung tumors.

Reproductive toxicity

Assessment of reproduction toxicity. Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Teraogenicity

Assessment of teratogenicity: The substance did not cause malformations in animal studies; however, Toxicity to development was observed at high doses that were toxic to the parental animals.

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Development

OECD Guideline 414 rat inhalation 0,1,4, 12mg/m³

NOAEL Mat: 4 mg/m³

NOAEL Teratog: 4 mg/m³

The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.

Symptoms of Exposure

The most important known symptoms and effects are described in the labeling (see section 2) and/or section 11. Eye irritation, skin irritation, allergic symptoms.

Medical conditions aggravated by overexposure

The isocyanate component is a respiratory sensitizer. It may cause allergic skin reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Medical supervision of all employees who handle or come into contact with isocyanates is recommended. Contact may aggravate pulmonary disorders.

Persons with history of respiratory disease or hypersensitivity should not be

exposed to this product. Pre-employment and periodic medical examinations with respiratory function tests (FEV₁, FVC as a minimum) are suggested. Persons with asthmatic conditions, chronic bronchitis, or other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended..

12 Ecological information

12.1 Toxicity

Aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. Based on long-term (chronic) toxicity study data, the product is not likely harmful to aquatic organisms.

The product may hydrolyse. The test result maybe partially due to degradation products. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Toxicity to fish

LC₀ (96h) > 1,000 mg/l, Brachydanio rerio (OCED Guideline 203, static)

Aquatic invertebrates

EC₅₀ (24h) > 1,000 mg/l Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants

EC₀ (72h) > 1,640 mg/l (growth rate), Scenedesmus subspicatus (OCED Guideline 201, static)

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 aquatic

aerobic bacteria from a domestic water treatment plant/EC₅₀ (3h): > 100 mg/l

12.2 Persistence and degradability:

Assessment biodegradation and elimination (H20)

Poorly biodegradable. The product is unstable in water. The elimination data also refer to products of hydrolysis

Elimination information

0% BOD of the ThOD (28d) (OCED Guideline 302 C) (aerobic, activated sludge) poorly biodegradable.

Assessment of stability in water

In contact with water the substance will hydrolyse slowly.

Information on stability in Water (Hydrolysis)

T_{1/2} 20h 79°F (25°C)

12.3 Bio accumulative potential:

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Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected

Bioaccumulation potential

Bio-concentration factor: 200 (28d), Cyprinus carpo (OCED Guideline 305E)

12.4 Mobility in soil:

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected

Ecological effects:

Remark:

Additional ecological information: No data available

General notes:

Component Information:

no other information available

13 Disposal considerations

13.1 Waste treatment methods

Recommendations:

Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

RCRA WASTE CODE: D002

EU WASTE CODE: To Be Established

14 Transport information

14.1 UN-Number

DOT: CAN: ADR: ADN: IMDG: IATA: NOT REGULATED

14.2 UN proper shipping name

ADR: DOT: CAN: ADR: ADN: IMDG: IATA: NOT REGULATED

14.3 Transport hazard class(es)

DOT: CAN: ADR: ADN: IMDG: IATA:

Class:

NOT REGULATED

Label:

14.4 Packing group

DOT: CAN: ADR: ADN: IMDG: IATA: NOT REGULATED

14.5 Environmental hazards:

Marine pollutant:

NOT REGULATED

14.6 Special precautions for user

Danger code (Kemler):

No data available

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EMS Number:

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: No data available

Transport/Additional information

ADR
Limited Quantities (LQ)
Excepted Quantities (EQ) No data available

Transport Category:
Tunnel restriction code:

UN "Model Regulation": No data available

Further information

DOT: This product is regulated if the amount in a single receptical exceeds the reportable quantity (RQ) = 13,157.9 lb.

15 Regulatory information

Federal regulations:

Regulation status:

Chemical TSCA, US released/ listed

EPCRA 311/312 (Hazard categories):

Acute Chronic

EPCRA 313:

<u>CAS Number</u>	<u>Chemical name</u>
101-68-8	Diphenylmethane-4,4'-diisocyanate (MDI)
9016-87-9	P-MDI

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical Name</u>
5000 lbs	101-68-8; 9016-87-9	Diphenylmethane-4,4'-diisocyanate (MDI), P-MDI

Reportable quantities for release: 13,157.9 lbs.

State regulations:

<u>State RTK</u>	<u>CAS Number</u>	<u>Chemical name</u>
MA, NJ, PA	9016-87-9	P MDI
MA, NJ, PA	101-68-8	Diphenylmethane-4,4'-diisocyanate (MDI)
NJ	26447-40-5	Methylenediphenyl diisocyanate'

HFPA Hazard codes;

Health 2, Fire 1, Reactivity 1, Special

HIMIS III rating

Health 2, Flammability 1, Physical hazard 1

Safety Data Sheet

According to 1907/2006/EC (REACH) and 1272/2008/EC (CLP)

Printing Date: 4/10/2015

Revision: 4/15/2015

Trade Name: HERMETIC™ 4.8S Urethane – Thermal Shock Resistant Slurry - Part B

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Hazard Statements:

H302: Harmful if swallowed

H318: Causes serious eye damage

Precautionary Statements:

Prevention: P264: Wash hands thoroughly after handling
P270: Do not eat, drink or smoke when using this product

Response: P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310+P330: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

Disposal: P501: Disposal of contents/container to be specified in accordance with State, Federal and

Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation.

IATA: International Air Transport Association.

ACGIH: American Conference of Governmental Industrial Hygienists.

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

NFPA: National Fire Protection Association (USA).

HMIS: Hazardous Materials Identification System (USA).

LC50: Lethal concentration, 50 percent.

LD50: Lethal dose, 50 percent.