



SILTECH CORP.

Safety Data Sheet

Prepared in accordance with GHS standard
& Annex II - EC regulation 1907/2006 and amendments

Silmer NCO Di-50
SDS No: 5761

Last Revision Date: May 13, 2015

SECTION 1. IDENTIFICATION

Material Identification: Silmer NCO Di-50

Company Identification: Siltech Corp.

Chemical Name: Isocyanate functional silicone pre-polymer

225 Wicksteed Avenue

Chemical Classification: Silicone

Toronto, Ontario

CAS #: 1411848-76-4 / 5124-30-1

Canada

M4H 1G5

(416) 424-4567

Recommended Product Usage

Polymer production

CANUTEC 24-HOUR EMERGENCY RESPONSE TELEPHONE NUMBER: (613) 996-6666

USE IN CASE OF A DANGEROUS GOODS EMERGENCY

SECTION 2. HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATION:

Acute toxicity	Category 3	Inhalation
Eye irritation	Category 2	
Skin irritation	Category 2	
Specific Target Organ Toxicity	Category 3	(single exposure)
Respiratory sensitisation	Category 1	

GHS LABEL ELEMENTS (including precautionary statements):

Symbol :



Signal Word:

Danger

Hazard Risk Statement:

- H331: Toxic if inhaled
- H319: Causes serious eye irritation
- H335: May cause respiratory irritation
- H315: Causes skin irritation
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H317: May cause an allergic skin reaction

Precautionary Statement:

Prevention:

- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P271: Use in well ventilated area.

Response:

- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Storage:

- P403 + P235: Store in well-ventilated place. Keep cool.

Disposal:

- P501: Dispose of contents/container in accordance with local / regional / national / international regulations.

OTHER HAZARD (risk not included in classification):

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Common Name or Synonym</u>	<u>CAS No.</u>	<u>EINECS/ ELINCS No.</u>	<u>% (w/w)</u>	<u>GHS Classification</u>	<u>Classification according to Directive 67-548/EEC</u>
Siloxanes and Silicones, di-Me, 3-[[[4-(4-isocyanatocyclohexyl)methyl] cyclohexyl] amino] carbonyl] oxy] propyl group-terminated	Isocyanate functional silicone	1411848-76-4	N/A	95 - 99	Skin irritation: Category 2	Xi
Dicyclohexylmethane-4,4'-Diisocyanate	HMDI	5124-30-1	225-863-2	1 - 5	Acute toxicity – inhalation: Category 3 Eye irritation: Category 2 Specific Target Organ Toxicity – single exposure: Category 3 Skin irritation: Category 2 Respiratory sensitisation: Category 1 Skin sensitisation: Category 1	T, Xi R23 R36/37/38 R42/43

SECTION 4. FIRST AID MEASURES

Eyes: Immediately flush with water for 15 minutes. Obtain medical attention if irritation occurs.

Skin: Remove contaminated clothing and wash with soap and water. Obtain medical attention if irritation occurs.

Inhalation: If first aid is required move victim to fresh air. Obtain medical attention if irritation occurs.

Ingestion: Do not induce vomiting and obtain medical attention immediately.

SECTION 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Carbon dioxide, dry powder, foam. Water can be used to cool fire exposed containers.

Unsuitable Extinguishing Media: None known.

Specific Hazards Arising from the Chemical: Silicon Dioxide. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde.

Special Protective Actions for Fire-Fighters: Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. Use water spray to cool fire exposed containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Avoid eye and skin contact. Use personal protective equipment.

Environmental Precautions: Prevent from entering drains or water sources.

Containment/Clean up: Collect for disposal. Clean up remaining materials from spill with suitable absorbent. For large spills provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean area as appropriate since some silicone material, even in small quantities, may present a slip hazard. Final cleaning may require steam, solvents or detergents.

SECTION 7. HANDLING AND STORAGE

Handling Precautions: Avoid eye and skin contact. Do not take internally. Use with adequate ventilation. Wash after handling. Exercise good industrial hygiene practice.

Storage Conditions: Keep container tightly closed in a dry and well-ventilated area. (moisture sensitive)

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMIT VALUES / BIOLOGICAL LIMIT VALUES:

Industrial Hygiene Standards

<u>Ingredient</u>	<u>CAS No.</u>	<u>Exposure Limit</u>
Dicyclohexylmethane-4,4 ϕ Diisocyanate	5124-30-1	ACGIH TLV-TWA: 0.005 ppm OSHA PEL – TWA: 0.005 ppm

ENGINEERING CONTROLS:

Local Ventilation: Required.

General ventilation: Required.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory protection: In the case of vapour formation use a respirator with an approved filter.

Hand protection: Permeation time \geq 8 hours

Nitrile rubber/Nitrile latex - NBR (0.35 mm) , Butyl rubber - Butyl (0.5 mm) , Fluoro carbon rubber - FKM (0.4 mm)

Eye protection: Use proper protection - safety glasses as a minimum.

Skin protection: Impervious clothing.

Hygiene measures: Observe good industrial hygiene practices. Wash after handling.

Note: These precautions are for room temperature handling. Use at elevated temperatures or aerosol spray applications may require added precautions.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Appearance:</u>	Clear to hazy liquid	<u>Viscosity@25°C:</u>	1,500 cps
<u>Colour:</u>	Colourless	<u>Melting/Freezing Point:</u>	Not determined
<u>Odour:</u>	Odourless	<u>Initial Boiling Point:</u>	>100°C @ 760 mmHg
<u>Odour Threshold:</u>	Not determined	<u>Boiling Range:</u>	Not determined
<u>Flash Point:</u>	>100°C (Pensky-Martens closed cup)	<u>Explosive Properties:</u>	No
<u>Flammability:</u>	Not determined	<u>Vapour Pressure @25°C:</u>	Not determined
<u>Flammability Limits:</u>	Not determined	<u>Vapour Density</u>	Not determined
<u>Auto-ignition Temperature:</u>	Not determined	<u>Partition Coefficient</u>	Not determined
<u>Decomposition Temperature:</u>	Not determined	<u>pH:</u>	Not determined
<u>Specific Gravity @25°C:</u>	0.98	<u>Oxidising Properties:</u>	No
<u>Solubility in Water:</u>	Reacts to liberate CO ₂	<u>Evaporation Rate:</u>	Not determined

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable. (isocyanate will react on contact with moisture)

Possibility of Hazardous Reactions: May occur on contact with moisture and at elevated temperatures.

Conditions to Avoid: Avoid extreme heat or cold.

Incompatible Materials: Water, amines, strong bases, alcohols, metal compounds, surface active materials.

Hazardous Decomposition Products: The following decomposition products may form during fire or at very high temperatures: Carbon Oxides, Silicon dioxide, Formaldehyde, and traces of incompletely burned carbon compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE:

Respiratory:	Exposure is expected.
Oral:	Exposure is expected.
Eye, Skin:	Exposure is expected.

INFORMATION ON THE HEALTH HAZARDS:

Acute Toxicity:

Eyes:	Direct contact may cause temporary redness and discomfort.
Skin:	HMDI: (LD50 Dermal ó rabbit ó >10,000 mg/kg)
Inhalation:	HMDI: (LC50 Inhalation ó rat ó 434 mg/m ³ ó 4h)
Ingestion:	HMDI: (LD50 Oral ó rat ó 9,900 mg/kg)

Chronic Toxicity:

Skin:	HMDI: may cause irritation to skin..
Inhalation:	No known applicable information.
Ingestion:	Repeated ingestion or swallowing large amounts may injure internally.
Other Health Hazard	No known applicable information.

Skin Corrosion/Irritation: HMDI: (skin ó rabbit ó skin irritation ó 24 h)

Serious Eye Damage/Irritation: No known applicable information.

Respiratory Sensitization: No known applicable information.

Skin Sensitization: No known applicable information.

Carcinogenicity: No known applicable information.

Germ Cell Mutagenicity: No known applicable information.

Reproductive Toxicity: No known applicable information.

Specific Target Organ: May cause respiratory irritation.
(Systemic Toxicity – Single exposure)

Specific Target Organ: No known applicable information.
(Systemic Toxicity – Repeated exposure)

Aspiration Hazard: No known applicable information.

SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Environmental Effects

HDMI: (LC50 Danio rerio {Zebra Fish} ó 1.2 mg/l ó 96 hrs)

PERSISTENCE AND DEGRADABILITY:

Degradation:

In soil, siloxanes are degraded.

Environmental Fate and Distribution:

Siloxanes are removed from water by sedimentation sewage or binding to sludge.
Organic solvents may evaporate into atmosphere and degrade.

BIOACCUMULATIVE POTENTIAL:

Bioaccumulation:

No bioaccumulation potential.

MOBILITY IN SOIL:

None known.

OTHER ADVERSE EFFECTS:

None known.

SECTION 13. DISPOSAL CONSIDERATIONS

Product Disposal: Do not dispose of waste into sewer. Dispose of in accordance with local regulations.

Packaging Disposal: Dispose of in accordance with local regulations.

SECTION 14. TRANSPORTATION INFORMATION

AIR TRANSPORT (IATA):

UN No.: 2206
Proper Shipping Name: Isocyanate solutions, toxic, n.o.s. (Isocyanate-terminated silicone polymer)
Class: 6.1
Packing group: III
Labels:

SEA TRANSPORT (IMDG):

UN No.: 2206
Proper Shipping Name: ISOCYANATE SOLUTION, TOXIC, N.O.S (Isocyanate-terminated silicone polymer)
Class: 6.1
Packing group: III
Emergency Schedule:
(EmS): F-A , S-A
Labels:

ROAD / RAIL (US DOT/CANADA TDG/ADR/RID):

UN No.: 2206
Proper Shipping Name: Isocyanate solutions, toxic, n.o.s. (Isocyanate-terminated silicone polymer)
Class: 6.1
Packing group: III
Labels:

SECTION 15. REGULATORY INFORMATION

CHEMICAL INVENTORIES:

TSCA:	This material not currently listed.
DSL:	This material not currently listed.
EINECS:	All ingredients listed or exempted from the inventory.
AICS:	This material not currently listed.
IECSC:	This material not currently listed.
MITI:	This material not currently listed.
KECL:	This material not currently listed.
NZIoC:	This material not currently listed.
CSNN:	This material not currently listed.
PICCS:	This material not currently listed.

CANADA

This product has been classified in accordance with the hazard criteria of the CPR, and this MSDS contains all the information required by the CPR.

WHMIS Classification: CLASS D Division 1B | CLASS D Division 2A | CLASS D Division 2B

USA

EPA SARA Title III Chemical Listings:

Section 302 Extremely Hazardous Substances (40 CFR 355):	None
Section 304 CERCLA Hazardous Substances (40 CFR 302):	None
Section 311/312 Hazard Class (40 CFR 370):	Acute: YES ; Chronic: YES ; Fire: No ; Pressure: No ; Reactive: YES
Section 313 Toxic Chemicals (40 CFR 372):	Dicyclohexylmethane-4,4 ϕ -Diisocyanate (CAS# 5124-30-1) 1 - 5 %

Supplemental State Compliance Information

California

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm: **None known.**

Massachusetts / New Jersey / Pennsylvania

Dicyclohexylmethane-4,4 ϕ -Diisocyanate (CAS# 5124-30-1) 1 - 5 %

HMIS	
H	3
F	1
R	1



EEC

Labelling according to EEC Directive

Symbols: T (Toxic) | Xi (Irritant)

R-phrases: R23 (Toxic by inhalation) | R36/37/38 (Irritating to eyes, respiratory system and skin) | R42/43 (May cause sensitization by inhalation and skin contact)

S-phrases: S23 (Do not breathe fumes/vapour) | S24 (Avoid contact with skin) | S26 (In case of contact with eyes, rinse immediately with plenty of water and seek medical advice)

GERMANY

Wassergefährdungsklasse (water hazard class) : WGK 1

SECTION 16. OTHER INFORMATION

The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. This data is offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

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