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UK & Ireland Distributor



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MATERIAL SAFETY DATA SHEET

R-1002

NuSil Technology LLC urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to the use and understanding of the data contained in this MSDS.

To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors, and others whom it knows or believes will use this material of the information regarding hazards or safety; (2) furnish this same information to each of its customers for the product; and (3) request its customers to notify their employees, customers and other users of the product of this information.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

NuSil Technology LLC 1050 Cindy Lane Carpinteria, California 93013 USA (805) 684-8780	EMERGENCY TELEPHONE NUMBERS: (800) 424-9300 CHEMTREC (805) 684-8780 OUTSIDE OF THE USA (703) 527-3887 CHEMTREC
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PRODUCT NAME: R-1002
CHEMICAL NAME: Octamethylcyclotetrasiloxane
CHEMICAL FAMILY: Cyclotetrasiloxane
FORMULA: N/A
MOLECULAR WEIGHT: N/A
SYNONYMS: N/A
CAS # : 00556-67-2

2. HAZARDOUS INGREDIENTS

%	<u>MATERIAL</u>	<u>CAS #</u>	<u>EXPOSURE VALUE</u>	<u>CLASSIFICATION</u>
100	Octamethylcyclotetrasiloxane	00556-67-2	None Established	See Section 8

3. HAZARDS IDENTIFICATION

EFFECTS OF SINGLE OVEREXPOSURE:

SWALLOWING:

May be harmful, if swallowed.

SKIN ABSORPTION:

No evidence of adverse effects from available information.

INHALATION:

None known.

SKIN CONTACT:

None to mild irritation.

EYE CONTACT:

May cause mild irritation, tearing redness and swelling.

EFFECTS OF REPEATED OVEREXPOSURE:

No evidence of adverse effects from available information.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION:

None currently known.

OTHER EFFECTS OF OVEREXPOSURE:

None currently known.

4. FIRST AID MEASURES

EMERGENCY AND FIRST AID MEASURES:

SWALLOWING:

Give several glasses of water or milk. Do Not induce vomiting. Call a physician. Do not give anything by mouth to an unconscious person.

SKIN:

Wash with soap and water.

INHALATION:

Move victim to fresh air, if trouble breathing.

EYES:

Immediately flush eyes with water for at least 15 minutes. Obtain medical attention if discomfort persists.

NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. NOTE: Do not induce vomiting. Emesis of this material may prove difficult due to its high viscosity. Aspiration may cause lung damage.

5. FIRE FIGHTING MEASURES

FLASH POINT (test method(s)): 135° F (CC)

FLAMMABLE LIMITS IN AIR (by volume):

LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIA:

Apply alcohol-type or universal-type foams by manufacturer's recommended technique for large fires. Use water spray, carbon dioxide, dry chemical media for small fires.

SPECIAL FIRE FIGHTING PROCEDURES:

Do not spray a solid stream of water or foam directly into a pool of hot, burning liquid as this may cause frothing, and may intensify the fire. Use self-contained breathing apparatus when fighting fire in an enclosed area.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

This product contains polydimethylsiloxane, which can generate formaldehyde as a byproduct of oxidative thermal decomposition at temperatures greater than 150°C (300°F). See Section 10 for further information.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal.

Wear chemical resistant protective clothing. Eliminate all ignition sources.

WASTE DISPOSAL METHOD: Dispose of in accordance with all Federal, State, and local regulations.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Normal precautions common to safe manufacturing practice should be followed in handling and storage.

Keep container closed, in a cool dry place.	S3/S7/S8
Do not breathe vapor	S23
Avoid contact with eyes	S25

Flammable	R10
Harmful if inhaled or swallowed	R20/R22

Use a ground strap when making transfers

Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE VALUES AND SOURCE: None.

RESPIRATORY PROTECTION:

Use a NIOSH/MSHA approved respirator when there is a chance that a mist or spray may be generated..

VENTILATION:

General (mechanical) room ventilation is expected to be satisfactory for normal handling.

PROTECTIVE GLOVES: PVC-coated.

EYE PROTECTION: Use safety goggles.

OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES (based on typical material)

BOILING POINT: 348°F
 SPECIFIC GRAVITY (H₂O=1): 0.95
 FREEZING POINT: N/A
 VAPOR PRESSURE (mm Hg) (68°F): 1
 VAPOR DENSITY (air=1): N/A
 EVAPORATION RATE (Butyl Acetate=1): N/A

SOLUBILITY IN WATER (By wt): Negligible.

APPEARANCE: Transparent, colorless

ODOR: Faint, mild.

PHYSICAL STATE: Liquid

PERCENT VOLATILES (by wt): See Section 15

Note: The above information is not intended for use in preparing product specifications.

10. STABILITY AND REACTIVITY DATA

STABILITY: Stable.

CONDITIONS TO AVOID: Heat, flames, and sparks.

INCOMPATIBILITY: None known.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:

Burning can produce carbon monoxide, carbon dioxide, oxides of silicon, and hydrocarbons. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

Traces of formaldehyde may be generated due to oxidative thermal decomposition at temperatures greater than 150°C (300°F). Exposure to formaldehyde can cause adverse effects such as skin and respiratory sensitization and eye and throat irritation. Formaldehyde is a potential carcinogen. Evaluate and control exposure to formaldehyde when warranted by conditions of use.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

COMPONENT:

R-1002:

Acute Oral LD ₅₀ (mg/kg):	500-5000 (Rat) Inferred from ingredient hazard(s)
Acute Dermal LD ₅₀ (mg/kg):	1000-2000 (Rbt.) Inferred from ingredient hazard(s)
Acute Inhalation LC ₅₀ (mg/l):	2-20 (Rat) Inferred from ingredient hazard(s)
Other:	N/A.
Ames Test:	N/A.

Refer to Section 3 for further discussion of the health hazards associated with this preparation.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Complete information not yet available.

CHEMICAL FATE INFORMATION: Complete information not yet available.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with all Federal, State, and local regulations.

14. TRANSPORT INFORMATION

DOT HAZARD CLASSIFICATION:

Proper Shipping Name: Combustible liquid, n.o.s. (Octamethyl cyclotetrasiloxane)
 Hazard Class: Combustible
 Hazard Label: Combustible liquid
 UN Number: NA1993
 Packaging Group: III

I.A.T.A. HAZARD CLASSIFICATION:

Proper Shipping Name: Flammable Liquid n.o.s. (Octamethyl cyclotetrasiloxane)
 Hazard Class: 3
 Hazard Label: Flammable Liquid
 UN Number: UN1993
 Packaging Group: III

15. REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS:

The concentrations shown are maximum or ceiling levels (weight %) to be used for calculations for regulations. Trade Secrets are indicated by "TS".

C.H.I.P. REGULATIONS

Chemicals (Hazards Information and Packaging) Regulations 2008 requires physico-chemical and health hazard determination of all substances and preparations manufactured, transported, stored, modified, or consumed within the U.K. Components present in this product at a level, which could require reporting under the statute are:

****NONE****

FEDERAL EPA

Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4. Components present in this product at a level, which could require reporting under the statute are:

****NONE****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQ's) and release reporting based on Reportable Quantities (RQ's) in 40 CFR 355 (used for SARA 302, 304, 311, and 312). Components present in this product at a level, which could require reporting under the statute are:

**** NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS's that are copied and distributed for this material. Components present in this product at a level, which could require reporting under this statute are:

****NONE****

INVENTORY STATUS

The ingredients of this product are listed on, or are exempt from listing on, the TSCA inventory.

STATE-RIGHT-TO-KNOW

CALIFORNIA Proposition 65

This product contains no levels of listed substances, which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute.

MASSACHUSETTS 105 CMR 670.000 Right-To-Know, Substance List (MSL)

Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products. Components present in this product at a level, which could require reporting under the statute are:

**** NONE ****

PENNSYLVANIA Right-To-Know, Hazardous Substance List

Hazardous Substances and Special Hazardous Substances on the List must be identified when present in products. Components present in this product at a level, which could require reporting under the statute are:

**** NONE ****

CALIFORNIA SCAQMD RULE 443.1 VOC'S:

Volatile Organic Components (VOC's) = Substances with vapor pressure of ≥ 0.5 mm Hg at 104°C (219.2°F).

This product contains: Not Determined

OTHER REGULATORY INFORMATION:

EPA Hazard Categories: Immediate (Acute) Health Hazard.

C.H.I.P. Regulations:

Designation:	R-1002
Symbol:	N/A
Indication of Danger:	N/A
Safety Phrases:	S3/S7/S8
(Ref. Sect. 7)	R10/R20/R22

16. OTHER INFORMATION

HMSI FORMAT:

Health: 1

Flammability: 2

Reactivity: 0

We believe that the information contained herein is current as of the date of this Material Safety Data Sheet, and is offered in good faith. Since, use of this information and of these opinions and the conditions of the use of the product are not within the control of NuSil Technology, it is the user's obligation to determine the conditions of safe use of the product.

-NuSil Technology LLC Regulatory Compliance Department

Effective Date: January 1, 2009