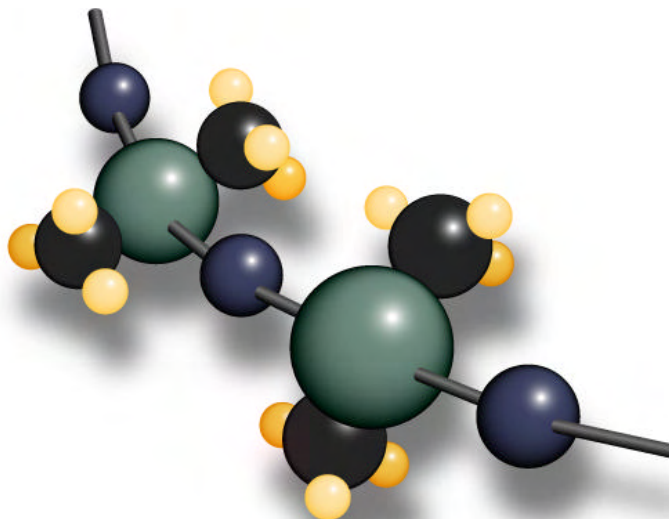


Polymer Systems Technology Limited

UK & Ireland Distributor



© 2011 - Polymer Systems Technology Limited TM
Unit 2. Network 4. Cressex Business Park,
Lincoln Road, High Wycombe, Bucks. HP12 3RF
Phone +44 (0) 1494 446610
Fax: +44 (0) 1494 528611
Web: <http://www.siliconepolymers.co.uk>
Email: sales@silicone-polymers.co.uk



MATERIAL SAFETY DATA SHEET

CAT-07

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
---	--

PRODUCT NAME: **CAT-07**
 CHEMICAL NAME: N/A
 CHEMICAL FAMILY: Silicone Catalyst
 FORMULA: Proprietary
 MOLECULAR WEIGHT: N/A
 SYNONYMS: N/A
 CAS# : Mixture

2. HAZARDOUS INGREDIENTS

%	<u>MATERIAL</u>	<u>CAS #</u>	<u>EXPOSURE VALUE</u>	<u>CLASSIFICATION</u>
90	Tetramethylammonium silanolate	68440-88-0	None Established	See Section 7
10	Cyclohexane	00110-82-7	See Section 8	See Section 7

3. HAZARDS IDENTIFICATION

EFFECTS OF SINGLE OVEREXPOSURE:

SWALLOWING:

Very corrosive to mucous membranes. Causes irritation of the mouth and throat, with chest and abdominal discomfort, nausea, vomiting, diarrhea, faintness, dizziness, weakness, and possibly loss of consciousness. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

SKIN ABSORPTION:

Prolonged or widespread skin contact may result in absorption of potentially harmful amounts of material.

INHALATION:

Very corrosive to mucous membranes. Causes irritation to the respiratory tract, experienced as nasal discomfort and discharge with chest pain and coughing. There may be difficulty in breathing.

SKIN CONTACT:

Very corrosive to skin. Causes marked local irritation, seen as severe local redness and swelling and possible alkali burn blisters. Skin corrosion may occur.

EYE CONTACT:

Severely corrosive to the eyes. Causes severe irritation, experienced as discomfort or pain, excess blinking and tear production, with marked excess redness and swelling of the conjunctiva. Iritis may occur. Corneal injury may be severe, extensive, and, if not treated promptly, could result in permanent impairment of vision.

EFFECTS OF REPEATED OVEREXPOSURE:

Chronic overexposure to tetramethylammonium silanolate can cause alkali irritation and areas of primary irritant dermatitis.

Exposure to extremely high concentrations of cyclohexane can lead to liver and kidney damage. Chronic skin overexposure to cyclohexane can cause dermatitis

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

Because of its irritating nature, this material may aggravate an existing dermatitis, and will irritate any existing exposed cuts or scrapes.

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 PROCEDURES:

SWALLOWING:

If patient is fully conscious, give two glasses of water or milk at once. Do not induce vomiting. Obtain medical attention without delay.

SKIN:

Remove contaminated clothing and wash skin with soap and copious amounts of water. Wash clothing before reuse. Discard shoes.

INHALATION:

Remove to fresh air. If not breathing, give artificial respiration. Oxygen may be given by qualified personnel. Obtain medical attention.

EYES:

Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

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. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (e.g., gastric lavage after endotracheal intubation).

5. FIRE FIGHTING MEASURES

FLASH POINT (test method(s)): 240°F (Open Cup) (ASTM D 92)

FLAMMABLE LIMITS IN AIR (by volume):

LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIA: Use water spray, carbon dioxide, dry chemical, alcohol-type or universal-type foams applied by manufacturer's recommended technique.

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: None known.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Confine spill with absorbent, transfer to a container suitable for disposal.

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
Keep away from heat, sources of ignition and combustible material	S15/S16/S17
Do not breathe vapor and avoid contact with skin and eyes	S23/S24/S25
In case of fire do not breathe fumes	S41
Causes Burns	R34

WARNING: Hot organic chemical vapors or mists are susceptible to sudden spontaneous combustion when mixed with air. Ignition may occur at temperatures below those published in the literature as "autoignition" or "ignition" temperatures. Ignition temperatures decrease with increasing vapor volume and vapor / air contact time, and are influenced by pressure changes.

Ignition may occur at typical elevated-temperature process conditions, especially in processes operating under vacuum if subjected to sudden ingress of air, or outside process equipment operating under elevated pressure if sudden escape of vapors or mists to the atmosphere occurs.

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:

Cyclohexane: 300 ppm - 8 hours TWA (ACGIH, OSHA, NIOSH)

RESPIRATORY PROTECTION:

Use NIOSH approved respirator or self-contained breathing apparatus as needed to maintain personnel exposure below established exposure values.

VENTILATION:

General (mechanical) room ventilation with local ventilation as needed to maintain exposure below established exposure values.

PROTECTIVE GLOVES: Use chemical resistant gloves.

EYE PROTECTION: Safety goggles as a minimum.

OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower.

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

BOILING POINT: N/A

SPECIFIC GRAVITY ($H_2O = 1$): 0.95

FREEZING POINT: N/A

VAPOR PRESSURE: N/A

VAPOR DENSITY (air = 1): N/A

EVAPORATION RATE (Butyl Acetate = 1): N/A

SOLUBILITY IN WATER (By wt): Insoluble

APPEARANCE: Transparent to Opaque-White

ODOR: Amine Odor

PHYSICAL STATE: Viscous 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: Avoid contact with elevated temperatures, open flame and other ignition sources.

INCOMPATIBILITY: Avoid contact with oxidizers and acids.

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.

Additionally Trimethylamine and methanol are produced during decomposition.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

COMPONENT:

CAT-07:

Acute Oral LD ₅₀ (mg/kg):	50-500 (Rat) Inferred from ingredient hazard(s)
Acute Dermal LD ₅₀ (mg/kg):	200-1000 (Rbt.) Inferred from ingredient hazard(s)
Acute Inhalation LC ₅₀ (mg/l):	0.5-2 (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

Would be considered as a characteristic waste (DOO2). Do not discharge directly to surface waters.

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

14. TRANSPORT INFORMATION

DOT HAZARD CLASSIFICATION:

Proper Shipping Name:	Corrosive liquid, n.o.s. (Tetramethylammonium hydroxide solution)
Hazard Class:	8
Hazard Label:	Corrosive
U.N. Number:	UN1835
UN Packaging Group:	II

I.A.T.A. HAZARD CLASSIFICATION:

Proper Shipping Name:	Corrosive liquid, n.o.s. (Tetramethylammonium hydroxide solution)
Hazard Class:	8
Hazard Label:	Corrosive
U.N. Number:	UN1835
UN Packaging Group:	II

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 (Hazard Information and Packaging for Supply) 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:

<u>MATERIAL</u>	<u>CAS NUMBER</u>	<u>UPPER BOUND CONCENTRATION</u>
Cyclohexane	00110-82-7	10 %

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:

<u>MATERIAL</u>	<u>CAS NUMBER</u>	<u>UPPER BOUND CONCENTRATION</u>
Cyclohexane	00110-82-7	10 %

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:

<u>MATERIAL</u>	<u>CAS NUMBER</u>	<u>UPPER BOUND CONCENTRATION</u>
Cyclohexane	00110-82-7	10 %

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:

<u>MATERIAL</u>	<u>CAS NUMBER</u>	<u>UPPER BOUND CONCENTRATION</u>
Cyclohexane	00110-82-7	10 %
