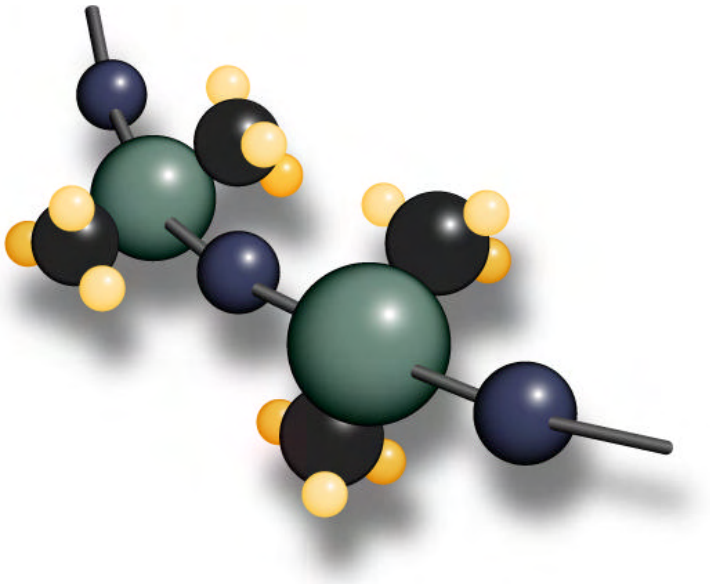
Polymer Systems Technology Limited

UK & Ireland Distributor

NuSil SILICONE TECHNOLOGY®
Creative Partners in a Material World

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
MED-2245 PART C

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: **MED-2245 PART C**
CHEMICAL NAME: 2-Methyl-3-butyn-2-ol
CHEMICAL FAMILY: N/A
FORMULA: C_5H_8O
MOLECULAR WEIGHT: 84.114
SYNONYMS: N/A
CAS # : 000115-19-5

2. HAZARDOUS INGREDIENTS

%	MATERIAL	CAS #	EXPOSURE VALUE	CLASSIFICATION
100	2-methyl-3-butyn-2-ol	00115-19-5	None Established.	See Section 7

3. HAZARDS IDENTIFICATION

EFFECTS OF SINGLE OVEREXPOSURE:

SWALLOWING:

Causes irritation to the mouth, throat and gastro-intestinal tract, resulting in discomfort in the mouth, throat, chest and abdomen, with diarrhea, nausea, vomiting, faintness, dizziness, weakness, and possibly loss of consciousness.

SKIN ABSORPTION:

Substance may be dermally absorbed resulting in systemic toxicity as detailed in SWALLOWING above.

INHALATION:

Causes irritation of the respiratory tract, experienced as nasal discomfort and discharge with chest pain and coughing. There may be difficulty in breathing.

SKIN CONTACT:

Causes irritation with discomfort, seen as local redness and possible swelling. Prolonged contact may result in drying and cracking of the skin due to a defatting action.

EYE CONTACT:
Liquid causes irritation, experienced as stinging, excess blinking and tear production, with excess redness and swelling of the conjunctiva.

EFFECTS OF REPEATED OVEREXPOSURE:
Prolonged or repeated inhalation exposure may cause kidney, liver and/or lung damage. Repeated skin contact may result in the development of cumulative 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. Breathing vapor or mist may aggravate asthma and inflammatory or fibrotic pulmonary disease.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION:
None currently known.

OTHER EFFECTS OF OVEREXPOSURE:
None 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. Seek medical attention without delay.

SKIN:
Remove contaminated clothing and wash skin with soap and water. Wash clothing before reuse.

INHALATION:
Remove to fresh air. Give artificial respiration if not breathing. Oxygen may be given by qualified personnel if breathing is difficult. Obtain medical attention if there is continued difficulty in breathing.

EYES:
Immediately flush eyes thoroughly for at least 15 minutes. Obtain medical attention if discomfort persist.

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.

5. FIRE FIGHTING MEASURES

FLASH POINT (test method(s)): 77°F (Cleveland Open Cup)

FLAMMABLE LIMITS IN AIR (by volume):
LOWER: 1.8% UPPER: 16.6%

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:
Vapor may travel considerable distance to a source of ignition and flash back.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Avoid breathing vapors. Extinguish and do not turn on any ignition source until the area is determined to be free from explosion or fire hazards. See Section 5, "Unusual Fire and Explosion Hazards." Spills may be soaked up with absorbent and placed in a container 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
Flammable	R10
Causes eye and skin irritation	R36/R38

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: None.

RESPIRATORY PROTECTION:
Use approved respirator or self-contained breathing apparatus as needed to minimize exposure.

VENTILATION:
General (mechanical) room ventilation with local ventilation as needed to minimize exposure.

PROTECTIVE GLOVES: Use solvent resistant gloves.

EYE PROTECTION : Safety goggles recommended.

OTHER PROTECTIVE EQUIPMENT: Eye wash and safety shower.

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

BOILING POINT: 219°F
SPECIFIC GRAVITY (H_2O=1): 0.87
FREEZING POINT: 36.7°F
VAPOR PRESSURE @ 20°C : 15 mm Hg
VAPOR DENSITY (air=1): N/A
EVAPORATION RATE (Butyl Acetate=1): N/A
SOLUBILITY IN WATER (By wt): Insoluble
APPEARANCE: Colorless
ODOR: Alcohol
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: None.

INCOMPATIBILITY: Oxidizing materials can cause a reaction.

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.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

COMPONENT:
MED-2245 PART C:

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

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

14. TRANSPORT INFORMATION

DOT HAZARD CLASSIFICATION:
Proper Shipping Name: Alcohols, flammable, toxic n.o.s. (2-methyl-3-butyn-2-ol)
Hazard Class: 3
Hazard Label: Flammable liquid & Toxic
UN Number: UN1986
Packaging Group: III

I.A.T.A. HAZARD CLASSIFICATION:
Proper Shipping Name: Alcohols, n.o.s. (2-methyl-3-butyn-2-ol)
Hazard Class: 3
Hazard Label: Flammable Liquid
UN Number: UN1987
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 (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:

**** 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:

MATERIAL	CAS NUMBER	UPPER BOUND CONCENTRATION
2-methyl-3-butyn-2-ol	00115-19-5	100 %

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:

MATERIAL	CAS NUMBER	UPPER BOUND CONCENTRATION
2-methyl-3-butyn-2-ol	00115-19-5	100 %

CALIFORNIA SCAQMD RULE 443.1 VOC'S:
Volatile Organic Components (VOC's) = Substances with vapor pressure of ≥ 0.5 mm Hg at 104°C (220°F).
This product contains < 870 g/L VOC's.

OTHER REGULATORY INFORMATION:
EPA Hazard Categories : Fire Hazard
Immediate Health Hazard
Delayed Health Hazard

C.H.I.P. Regulations:

Designation:	**MED-2245 PART C**
Symbol:	F
Indication of Danger:	Flammable 
Safety Phrases:	S3/S7/S8/S24/S25
(Ref. Sect. 7)	R10/R36/R38

---

16. OTHER INFORMATION

HMIS FORMAT:

Health: 2 Flammability: 3 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 the 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