



Version 3.0

# **SECTION 1: Identification**

#### 1.1. **Product Identifier**

Product Form **Product Name** Synonyms

Mixture R-1505 Silicone Adhesive

#### Relevant Identified Uses of the Substance or Mixture and Uses Advised Against 1.2.

Use of the Substance/Mixture For professional use only.

1.3. Details of the Supplier of the Safety Data Sheet

NuSil Technology LLC 1050 Cindy Lane Carpinteria, California 93013 USA (805) 684-8780 ehs@nusil.com www.nusil.com

#### 1.4. **Emergency Telephone Number**

800-424-9300 CHEMTREC (in US); +1 703-527-3887 CHEMTREC (International Emergency Number and Maritime)

# **SECTION 2: Hazards Identification**

#### Classification of the Substance or Mixture 2.1.

### **GHS-US** Classification

Eye Irrit. 2A	H319
Skin Sens. 1	H317
Repr. 1B	H360
STOT RE 2	H373
Aquatic Chronic 3	H412

Full text of hazard classes and H-statements: see section 16

#### Label Elements 2.2.

## **GHS-US Labeling**

Hazard Pictograms (GHS-US)

Signal Word (GHS-US) Hazard Statements (GHS-US)

GHS07 GHS08 Danger

H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation

H360 - May damage fertility or the unborn child

H373 - May cause damage to organs through prolonged or

repeated exposure

H412 - Harmful to aquatic life with long lasting effects

Safety Data Sheet According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Precautionary Statements (GHS-	P201 - Obtain special instructions before use.
US)	P202 - Do not handle until all safety precautions have been
	read and understood.
	P260 - Do not breathe vapors, mist, spray.
	P264 - Wash hands, forearms, and exposed areas thoroughly
	after handling.
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	P272 - Contaminated work clothing must not be allowed out of the workplace.
	P273 - Avoid release to the environment.
	P280 - Wear eye protection, protective clothing, protective
	gloves.
	P302+P352 - If on skin: Wash with plenty of water.
	P305+P351+P338 - If in eyes: Rinse cautiously with water for
	several minutes. Remove contact lenses, if present and easy to
	do. Continue rinsing.
	P308+P313 - If exposed or concerned: Get medical
	advice/attention.
	P314 - Get medical advice/attention if you feel unwell.
	P321 - Specific treatment (see Section 4 on this SDS).
	P333+P313 - If skin irritation or rash occurs: Get medical
	advice/attention.
	P337+P313 - If eye irritation persists: Get medical
	advice/attention.
	P363 - Wash contaminated clothing before reuse.
	-
	P405 - Store locked up.
	P501 - Dispose of contents/container in accordance with local,
	regional, national, and international regulations.
2.3. Other Hazards	
Other Hazards Not Contributing	Exposure may agaravate those with pre-existing ever skin, or

Other Hazards Not Contributing Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

## 2.4. Unknown Acute Toxicity (GHS-US)

No data available

# **SECTION 3: Composition/Information On Ingredients**

## 3.1. Substances

Not applicable

## 3.2. Mixtures

Name	Product Identifier	%	GHS-US Classification
2-Butanone, O,O',O''-	(CAS-No.) 22984-54-9	15 - 25	Eye Irrit. 2A, H319
(methylsilylidyne)trioxime			Skin Sens. 1B, H317
			STOT RE 2, H373
Silanamine, 1,1,1-trimethyl-N-	(CAS-No.) 68909-20-6	5 - 15	Not classified
(trimethylsilyl)-, hydrolysis			
products with silica			
N-[3-(Trimethoxysilyl)propyl]-1,2-	(CAS-No.) 1760-24-3	< 1	Acute Tox. 4
ethanediamine			(Inhalation:dust,mist), H332
			Eye Dam. 1, H318
			Skin Sens. 1, H317
			Aquatic Acute 2, H401

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		1	
Dibutyltin dilaurate	(CAS-No.) 77-58-7	< 1	Skin Corr. 1C, H314
			Eye Dam. 1, H318
			Skin Sens. 1, H317
			Muta. 2, H341
			Repr. 1B, H360
			STOT SE 1, H370
			STOT RE 1, H372
			Aquatic Acute 1, H400
			Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

## **SECTION 4: First Aid Measures**

### 4.1. Description of First-aid Measures

First-aid Measures General	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid Measures After Inhalation	If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.
First-aid Measures After Skin Contact	Remove contaminated clothing. Gently wash with plenty of soap and water. Obtain medical attention if irritation develops or persists.
First-aid Measures After Eye Contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
First-aid Measures After Ingestion	Seek medical attention if a large amount is swallowed. Rinse mouth. Do NOT induce vomiting.
	and Effects Both Acute and Delayed
Symptoms/Injuries	May cause an allergic skin reaction. Causes serious eye irritation. May damage fertility. May damage the unborn child. May cause damage to organs through prolonged or repeated exposure.
Symptoms/Injuries After Inhalation	May cause respiratory irritation.
Symptoms/Injuries After Skin Contact	May cause an allergic skin reaction.
Symptoms/Injuries After Eye Contact	Causes serious eye irritation.
Symptoms/Injuries After Ingestion	Ingestion is likely to be harmful or have adverse effects.
Chronic Symptoms	May damage fertility. May damage the unborn child. May damage organs through prolonged or repeated exposure.

## 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

# **SECTION 5: Fire-Fighting Measures**

## 5.1. Extinguishing Media

Suitable Extinguishing Media Unsuitable Extinguishing Media	<ul> <li>: Use extinguishing media appropriate for surrounding fire.</li> <li>: Do not use a heavy water stream. Application of water stream to hot product may cause frothing and increase fire intensity. A heavy water stream may spread burning liquid.</li> </ul>
5.2. Special Hazards Arising	From the Substance or Mixture
Fire Hazard	Not considered flammable but will burn at high temperatures.
Explosion Hazard	Product is not explosive.
Reactivity	Hazardous reactions will not occur under normal conditions.
5.3. Advice for Firefighters	
Precautionary Measures Fire	Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.
Firefighting Instructions	Use water spray or fog for cooling exposed containers. Avoid release to the environment.
Protection During Firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.
Hazardous Combustion Products	Carbon oxides (CO, CO <sub>2</sub> ). Silicon oxides. Tin oxides. Nitrogen compounds. Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapors. Formaldeyhde is a potential carcinogen and can act as a potential skin and respiratory sensitizer. Formaldehyde can also cause respiratory and eye irritation.
Other Information	Refer to Section 9 for flammability properties.

# **SECTION 6: Accidental Release Measures**

### 6.1. Personal Precautions, Protective Equipment And Emergency Procedures

General Measures	Do not get in eyes, on skin, or on clothing. Avoid breathing (vapor, mist, spray). Do not allow product to spread into the environment.
6.1.1. For Non-Emergency Personr	
Protective Equipment	Use appropriate personal protective equipment (PPE).
Emergency Procedures	Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective Equipment	Equip cleanup crew with proper protection.
Emergency Procedures	Ventilate area. Eliminate ignition sources. Stop leak if safe to do
	SO.
6.2. Environmental Precaution	S

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

## 6.3. Methods and Materials for Containment and Cleaning Up

For Containment	Contain any spills with dikes or absorbents to prevent migration
	and entry into sewers or streams.
Methods for Cleaning Up	Absorb and/or contain spill with inert material, then place in suitable container. Clean up spills immediately and dispose of waste safely.

## 6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection.

# **SECTION 7: Handling And Storage**

## 7.1. Precautions for Safe Handling

Additional Hazards When	When heated, material emits irritating fumes. Any proposed use		
Processed	of this product in elevated-temperature processes should be		
	thoroughly evaluated to assure that safe operating conditions		
	are established and maintained.		
Hygiene Measures	Handle in accordance with good industrial hygiene and safety		
	procedures. Wash hands and other exposed areas with mild		
	soap and water before eating, drinking, or smoking and again		
	when leaving work.		
7.2. Conditions for Safe Storage, Including Any Incompatibilities			
Technical Measures	Comply with applicable regulations.		
Storage Conditions	Store in a dry, cool and well-ventilated place. Keep container		
	tightly closed.		
Incompatible Materials	Strong acids. Strong bases. Strong oxidizers.		

#### 7.3. Specific End Use(S)

For professional use only.

# SECTION 8: Exposure Controls/Personal Protection

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), or OSHA (PEL).

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica (68909-20-6)		
USA OSHA	OSHA PEL (TWA) (mg/m³)	6 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	20 mppcf (80 mg/m³/%SiO <sub>2</sub> )

### 8.2. Exposure Controls

Appropriate Engineering Controls

Personal Protective Equipment

Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Avoid all unnecessary exposure. Gloves. Safety glasses. Protective clothing. Insufficient ventilation: wear respiratory protection.



Materials For Protective Clothing Hand Protection Eye And Face Protection Skin And Body Protection

Respiratory Protection

Chemically resistant materials and fabrics.

Wear protective gloves. Chemical goggles or safety glasses. Wear suitable protective clothing. Wash contaminated clothing before reuse. Use a NIOSH-approved respirator or self-contained breathing

apparatus whenever exposure may exceed established Occupational Exposure Limits.

Environmental Exposure Controls	Do not allow the product to be released into the environment.
Consumer Exposure Controls	Do not eat, drink or smoke during use.
Other Information	When using, do not eat, drink or smoke.

# SECTION 9: Physical and Chemical Properties

## 9.1. Information on Basic Physical and Chemical Properties

Physical State	Liquid
Appearance	Black
Odor	Characteristic
Odor Threshold	No data available
рН	No data available
Evaporation Rate	No data available
Melting Point	No data available
Freezing Point	No data available
Boiling Point	No data available
Flash Point	> 135 °C (275 °F)
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Flammability (solid, gas)	No data available
Vapor Pressure	No data available
Relative Vapor Density at 20°C	No data available
Relative Density	No data available
Specific Gravity	> 1
Solubility	No data available
Partition Coefficient n-Octanol/Wo	iter No data available
Viscosity	No data available
9.2. Other Information	
VOC Content	< 1 %

# **SECTION 10: Stability and Reactivity**

## 10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

## 10.2. Chemical Stability

Stable at standard temperature and pressure.

### 10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to Avoid

Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials.

### 10.5. Incompatible Materials

Strong acids. Strong bases. Strong oxidizers.

### 10.6. Hazardous Decomposition Products

None expected under normal conditions of use.

# **SECTION 11: Toxicological Information**

# 11.1. Information on Toxicological Effects

Acute Toxicity (Oral)	: Not classified			
Acute Toxicity (Dermal)	: Not classified			
Acute Toxicity (Inhalation) : Not classified				
2-Butanone, O,O',O''-(methylsilylidyne)trioxime (22984-54-9)				
LD50 Oral Rat	2463 mg/kg			
LD50 Dermal Rat	> 2000 mg/kg			
N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine (1760-24-3)				
LD50 Oral Rat	2295 mg/kg			
LD50 Dermal Rabbit	> 2000 mg/kg			
LC50 Inhalation Rat	> 1.49 mg/l/4h			
Dibutyltin dilaurate (77-58-7)				
LD50 Dermal Rat	> 2 g/kg			
Skin Corrosion/Irritation	Not classified			
Serious Eye Damage/Irritation	Causes serious eye irritation.			
Respiratory or Skin Sensitization	May cause an allergic skin reaction.			
Germ Cell Mutagenicity	Not classified			
Carcinogenicity	Not classified			
Reproductive Toxicity	: May damage fertility or the unborn child.			
Specific Target Organ Toxicity (Si	ngle : Not classified			
Exposure)				
Specific Target Organ Toxicity (Re	epeated : May cause damage to organs through prolonged			
Exposure)	or repeated exposure.			
Aspiration Hazard	Not classified			
Symptoms/Injuries After	May cause respiratory irritation.			
Inhalation				
Symptoms/Injuries After Skin	May cause an allergic skin reaction.			
Contact				
Symptoms/Injuries After Eye	Causes serious eye irritation.			
Contact				
Symptoms/Injuries After	Ingestion is likely to be harmful or have adverse effects.			
Ingestion				
Chronic Symptoms	May damage fertility. May damage the unborn child. May damage organs through prolonged or repeated exposure.			

# **SECTION 12: Ecological Information**

## 12.1. Toxicity

Ecology - General	Harmful to aquatic life with long lasting effects.	
2-Butanone, O,O',O''-(methylsilylidyne)trioxime (22984-54-9)		
EC50 Daphnia 1	120 mg/l (Exposure time: 48h - Species: Daphnia magna)	
N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine (1760-24-3)		
LC50 Fish 1	597 mg/l (Species: Danio rerio)	
EC50 Daphnia 1	81 mg/l	
ErC50 (Algae)	8.8 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella	
	subcapitata)	

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NOEC Chronic Fish	344 mg/l	
NOEC Chronic Crustacea	35 mg/l	
NOEC Chronic Algae	3.1 mg/l (Pseudokirchnerella subcapitata Exposure time: 96h)	
DibutyItin dilaurate (77-58-7)		
EC50 Daphnia 1	0.463 mg/l (Daphnia magna)	
12.2. Persistence and Degradability		
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Persistence and Degradability	Not established.	
12.3. Bioaccumulative Potential		
R-1505		
Bioaccumulative Potential	Not established.	
DibutyItin dilaurate (77-58-7)		
Log Pow	4.44	
12.4 Mobility In Soil		

### 12.4. Mobility In Soil

No additional information available

### 12.5. Other Adverse Effects

Other Information

Avoid release to the environment.

# **SECTION 13: Disposal Considerations**

## 13.1. Waste Treatment Methods

Waste DisposalDispose of waste material in accordance with all local,<br/>regional, national, and international regulations.Ecology - Waste MaterialsAvoid release to the environment.

# **SECTION 14: Transport Information**

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT Not regulated for transport

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

# SECTION 15: Regulatory Information

## 15.1. US Federal Regulations

All components in this mixture are listed on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, have been exempted, are not listed, not disclosed due to CBI requirements or disclosure rules according to the relevant regulation.

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SARA Section 311/312 Hazard	Health hazard - Serious eye damage or eye irritation
Classes	Health hazard - Reproductive toxicity
	Health hazard - Respiratory or skin sensitization
	Health hazard - Specific target organ toxicity (single or repeated
	exposure)

## 15.2. US State Regulations

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica (68909-20-6)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

2-Butanone, O,O',O"-(methylsilylidyne)trioxime (22984-54-9)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine (1760-24-3)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

Dibutyltin dilaurate (77-58-7)

U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour

U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual

U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

# SECTION 16: Other Information, Including Date of Preparation or Last Revision

Date of Preparation or Latest Revision	12/04/2019
Other Information	This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

### GHS Full Text Phrases:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute
	Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic
	Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Muta. 2	Germ cell mutagenicity Category 2
Repr. 1B	Reproductive toxicity Category 1B
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1B	Skin sensitization, category 1B
STOT RE 1	Specific target organ toxicity (repeated exposure)
	Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure)
	Category 2

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	STOT SE 1	Specific target organ toxicity (single exposure)
		Category 1
	H314	Causes severe skin burns and eye damage
	H317	May cause an allergic skin reaction
	H318	Causes serious eye damage
	H319	Causes serious eye irritation
	H332	Harmful if inhaled
	H341	Suspected of causing genetic defects
	H360	May damage fertility or the unborn child
	H370	Causes damage to organs
	H372	Causes damage to organs through prolonged or repeated exposure
	H373	May cause damage to organs through prolonged or repeated exposure
	H400	Very toxic to aquatic life
	H401	Toxic to aquatic life
	H410	Very toxic to aquatic life with long lasting effects
	H412	Harmful to aquatic life with long lasting effects
NFP <i>A</i>	A Health Hazard	2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA	A Fire Hazard	1 - Materials that must be preheated before ignition can occur.
NFP <i>A</i>	A Reactivity Hazard	0 - Material that in themselves are normally stable, even under fire conditions.
HMIS	III Rating	
Heal	th	2 Moderate Hazard - Temporary or minor injury may occur * Chronic - Chronic (long-term) health effects may result from repeated overexposure
Flammability 1 Slight Haz		1 Slight Hazard 0 Minimal Hazard

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## RECALL OR BUSINESS INTERRUPTION.

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