

# Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 03/27/2023

Date of issue: 06/26/2014 Version: 3.0

## **SECTION 1: Identification**

## 1.1. Product identifier

**Product Form** Mixture CV-1143 Product Name

## 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture For profesional 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

productstewardship@avantorsciencesgcc.com

www.nusil.com

# 1.4. Emergency telephone number

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

number and Maritime)

## **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

#### **GHS-US** classification

Eye Irrit. 2A H319 Skin Sens. 1 H317 Repr. 1B H360 STOT RE 2 H373 Aquatic Chronic 2 H411

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

#### 2.2. Label elements

# **GHS-US** labelina

Hazard pictograms (GHS-US)





Signal word (GHS-US) Danger

Hazard statements (GHS-US) 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

H411 - Toxic to aquatic life with long lasting effects

Precautionary statements P201 - Obtain special instructions before use.

(GHS-US)

P202 - Do not handle until all safety precautions have been

read and understood.

P260 - Do not breathe vapors, spray, mist.

P264 - Wash hands, forearms, and exposed areas thoroughly

03/27/2023 EN (English US) 1/11 after handling.

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.

P391 - Collect spillage.

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 to the classification

Exposure may aggravate 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. Substance

Not applicable

# 3.2. Mixture

Name	Product identifier	%	GHS-US classification
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica	(CAS-No.) 68909-20-6	10 - 30	Not classified
2-Butanone, O,O',O''- (methylsilylidyne)trioxime	(CAS No) 22984-54-9	< 15	Eye Irrit. 2A, H319 Skin Sens. 1B, H317 STOT RE 2, H373
N-[3-(TrimethoxysilyI)propyl]- 1,2-ethanediamine	(CAS No) 1760-24-3	< 1	Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 2, H401
Octamethylcyclotetrasiloxane	(CAS-No.) 556-67-2	< 1	Flam. Liq. 3, H226 Repr. 2, H361 Aquatic Chronic 1, H410
Dibutyltin dilaurate	(CAS No) 77-58-7	< 0.3	Skin Irrit. 2, H315 Eye Dam. 1, H318

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	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**

Never give anything by mouth to an unconscious person. If First-aid measures general

you feel unwell, seek medical advice (show the label where

possible).

First-aid measures after

inhalation

When symptoms occur: go into open air and ventilate

suspected area. Obtain medical attention if breathing

difficulty persists.

First-aid measures after skin

contact

Remove contaminated clothing. Drench affected area with

water for at least 15 minutes. 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

Rinse mouth. Do NOT induce vomiting. Obtain medical

attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries Causes serious eye irritation. Skin sensitization. May damage

fertility. May damage the unborn child. May cause damage

to organs through prolonged or repeated exposure.

Symptoms/injuries after

inhalation

Prolonged exposure may cause irritation.

Symptoms/injuries after skin

contact

May cause an allergic skin reaction.

Symptoms/injuries after eye

contact

Contact causes severe irritation with redness and swelling of

the conjunctiva.

Symptoms/injuries after

ingestion

Ingestion may cause adverse effects.

Chronic symptoms May damage fertility or the unborn child. May cause damage

to organs through prolonged or repeated exposure.

# 4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

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

### 5.1. Extinguishing media

Suitable extinguishing media Water spray, dry chemical, alcohol-resistant foam, carbon

dioxide.

03/27/2023 EN (English US) 3/11 Unsuitable extinguishing media Do not use a heavy water stream. Use of heavy stream of

water may spread fire. Application of water stream to hot product may cause frothing and increase fire intensity.

5.2. Special hazards arising from the substance or mixture

Fire hazard Not considered flammable but may 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.

Firefighting instructions Use water spray or fog for cooling exposed containers.

Protection during firefighting Do not enter fire area without proper protective equipment,

including respiratory protection.

# **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. Do not breathe

vapor, mist or spray.

6.1.1. For non-emergency personnel

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 Upon arrival at the scene, a first responder is expected to

recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

## 6.2. Environmental precautions

Prevent entry to sewers and public waters.

# 6.3. Methods and material 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 Clean up spills immediately and dispose of waste safely.

Transfer spilled material to a suitable container for disposal.

Contact competent authorities after a spill.

# 6.4. Reference to other sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

# **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Precautions for safe handling Wash hands and other exposed areas with mild soap and

water before eating, drinking or smoking and when leaving work. Avoid contact with skin, eyes and clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe

vapors, spray, mist.

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Hygiene measures Handle in accordance with good industrial hygiene and

safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures Comply with applicable regulations.

Storage conditions Keep container closed when not in use. Store in a dry, cool

place. Keep/Store away from direct sunlight, extremely high or

low temperatures and incompatible materials.

Incompatible products Strong acids, strong bases, strong oxidizers.

7.3. Specific end use(s)

For applications requiring low outgassing and minimal volatile condensables under extreme

operating conditions. 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).

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Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica (68909-20-6)			
USA OSHA	OSHA PEL (TWA) (mg/r	m³)	6 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm	)	20 mppcf (80 mg/m3/%SiO2)
Dibutyltin dilaurate (77-58-7)			
USA ACGIH	ACGIH chemical category	exposure by	rial significant contribution to overall the cutaneous route,A4 - not as a human carcinogen

## 8.2. Exposure controls

Appropriate engineering Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas.

Ensure all national/local regulations are observed.

Personal protective Gloves. Protective clothing. Protective goggles. Insufficient

equipment ventilation: wear respiratory protection.



Materials for protective

clothing

Hand protection Wear protective gloves. Eye protection Chemical safety goggles.

Skin and body protection Wear suitable protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced,

approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved

respiratory protection.

Other information When using, do not eat, drink or smoke.

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# **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Translucent
Color : Clear

Odor : Characteristic Odor threshold No data available На : 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

Specific Gravity : > 1

Solubility : No data available
Partition coefficient: n-octanol/water : 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 under recommended handling and storage conditions (see section 7).

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

#### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizers.

## 10.6. Hazardous decomposition products

Carbon oxides (CO, CO<sub>2</sub>). Silicon oxides.

# **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity Not classified

2-Butanone, O,O',O"-(methylsilylidyne)trioxime (22984-54-9)	
LD50 oral rat	2463 mg/kg
LD50 dermal rat	> 2000 mg/kg

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N-[3-(TrimethoxysilyI)propyI]-1,2-ethanediamine (1760-24-3)	
LD50 oral rat	2295 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 1.49 mg/l/4h
Dibutyltin dilaurate (77-58-7)	
LD50 dermal rat	> 2 g/kg
Octamethylcyclotetrasiloxane (556-67-2)	
LD50 Oral Rat	> 4800 mg/kg (No mortality)
LD50 Dermal Rat	> 2375 mg/kg
LD50 Dermal Rabbit	> 2.5 ml/kg (No mortality)
LC50 Inhalation Rat	36 mg/l/4h

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 (single : Not classified

exposure)

Specific target organ toxicity (repeated : May cause damage to organs through

exposure) prolonged or repeated exposure.

Aspiration hazard Not classified

Symptoms/injuries after Prolonged exposure may cause irritation.

inhalation

Symptoms/injuries after skin May cause an allergic skin reaction.

contact

Symptoms/injuries after eye Contact causes severe irritation with redness and swelling of

contact the conjunctiva.

Symptoms/injuries after Ingestion may cause adverse effects.

ingestion

Chronic symptoms May damage fertility or the unborn child. May cause

damage to organs through prolonged or repeated exposure.

# **SECTION 12: Ecological information**

# 12.1. Toxicity

Ecology - general Not classified.

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	l]-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)
NOEC chronic fish	344 mg/l
NOEC chronic crustacea	35 mg/l
NOEC chronic algae	3.1 mg/l (Pseudokirchnerella subcapitata Exposure time: 96h)
Dibutyltin dilaurate (77-58-7)	
EC50 Daphnia 1	0.463 mg/l (Daphnia magna)

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Octamethylcyclotetrasiloxane	(556-67-2)
LC50 Fish 1	> 22 µg/l
NOEC Chronic Fish	0.0044 mg/l

# 12.2. Persistence and degradability

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CV-1143	
Persistence and degradability	Not established.
Dibutyltin dilaurate (77-58-7)	
Persistence and degradability	Not readily biodegradable.

# 12.3. Bioaccumulative potential

CV-1143	
Bioaccumulative potential	Not established.
Dibutyltin dilaurate (77-58-7)	
Log Pow	4.44
Octamethylcyclotetrasiloxane (556-67-2)	
BCF Fish 1	12400 (dimensionless)
Partition coefficient n-	6.488 (at 25.1 °C)
octanol/water (Log Pow)	

# 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 disposal Dispose of contents/container in accordance with local,

recommendations regional, national, and international regulations.

Additional information Container may remain hazardous when empty. Continue to

observe all precautions.

# **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

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

(Octamethylcyclotetrasiloxane)

Hazard Class 9

Identification Number UN3082

Label Codes 9
Packing Group III

Marine Pollutant Marine pollutant

ERG Number 171

## 14.2. In Accordance with IMDG

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Octamethylcyclotetrasiloxane)

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Hazard Class 9

Identification Number UN3082

Packing Group III
Label Codes 9
EmS-No. (Fire) F-A
EmS-No. (Spillage) S-F



Marine Pollutant Marine pollutant

# 14.3. In Accordance with IATA

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Octamethylcyclotetrasiloxane)

Packing Group III

Identification Number UN3082

Hazard Class 9 Label Codes 9 ERG Code (IATA) 9L



# **SECTION 15: Regulatory information**

# 15.1. US Federal regulations

All components of this product are listed or exempted from being listed on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

CV-1143	(1001)
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
	Delayed (chronic) health hazard

## 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

# Octamethylcyclotetrasiloxane (556-67-2)

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

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

U.S. - Maine - Chemicals of Concern

U.S. - Oregon - Priority Persistent Pollutant - Tier I - Persistent Pollutants

U.S. - Minnesota - Chemicals of High Concern

U.S. - Minnesota - Chemicals of High Concern - Persistent Bioaccumulative Toxins

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

## 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. - Texas - Effects Screening Levels - Long Term

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

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# SECTION 16: Other information, including date of preparation or last revision

Revision date 03/27/2023

Other information This document has been prepared in accordance with the

SDS requirements of the OSHA Hazard Communication

Standard 29 CFR 1910.1200.

# Full text of H-phrases:

Acute toxicity (inhalation:dust,mist) Category 4
Hazardous to the aquatic environment - Acute Hazard Category 1
Hazardous to the aquatic environment - Acute Hazard Category 2
Hazardous to the aquatic environment - Chronic Hazard Category  1
Hazardous to the aquatic environment - Chronic Hazard Category 2
Serious eye damage/eye irritation Category 1
Serious eye damage/eye irritation Category 2A
Flammable liquids Category 3
Germ cell mutagenicity Category 2
Reproductive toxicity Category 1B
Reproductive toxicity Category 2
Skin corrosion/irritation Category 2
Skin sensitization Category 1
Skin sensitization Category 1B
Specific target organ toxicity (repeated exposure) Category 1
Specific target organ toxicity (repeated exposure) Category 2
Specific target organ toxicity (single exposure) Category 1
Flammable liquid or vapor
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye damage
Causes serious eye irritation
Harmful if inhaled
Suspected of causing genetic defects
May damage fertility or the unborn child
Suspected of damaging fertility or the unborn child
Causes damage to organs
Causes damage to organs through prolonged or repeated
exposure
May cause damage to organs through prolonged or repeated
exposure
Very toxic to aquatic life
Toxic to aquatic life
Very toxic to aquatic life with long lasting effects
Toxic to aquatic life with long lasting effects

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NFPA health hazard 2 - Intense or continued exposure

could cause temporary incapacitation or possible residual injury unless prompt

medical attention is given.

NFPA fire hazard 1 - Must be preheated before ignition

can occur.

NFPA reactivity 1 - Normally stable, but can become

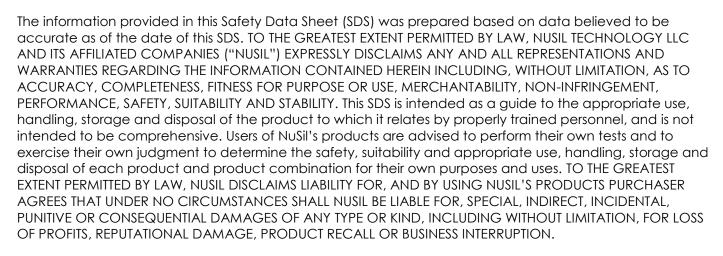
unstable at elevated temperatures and pressures or may react with water with some release of energy, but not

violently.

**HMIS III Rating** 

Health 2 Moderate Hazard - Temporary or minor injury may occur

Flammability 1 Slight Hazard
Physical 1 Slight Hazard



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