

CV1-1142-4

Safety Data Sheet

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

Revision date: 05/05/2020

Date of issue: 03/09/2014

Version: 2.1

SECTION 1: Identification

1.1. Product identifier

Product Form : Mixture
Product Name : CV1-1142-4

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

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

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

Full text of hazard classes and H-statements : see section 1.6

2.2. Label elements

GHS-US labeling

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

Precautionary statements (GHS-US) :

- P201 - Obtain special instructions before use.
- 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 after handling.
- P272 - Contaminated work clothing must not be allowed out

CV1-1142-4

Safety Data Sheet

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

of the workplace.
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 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	< 20	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-(Trimethoxysilyl)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
Dibutyltin dilaurate	(CAS No) 77-58-7	< 0.3	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

CV1-1142-4

Safety Data Sheet

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

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 : 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.
- 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.

CV1-1142-4

Safety Data Sheet

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

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.
- 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.

CV1-1142-4

Safety Data Sheet

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

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).

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica (68909-20-6)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	6 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	20 mppcf (80mg/m ³ /%SiO ₂)
Dibutyltin dilaurate (77-58-7)		
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route, A4 - not classifiable as a human carcinogen

8.2. Exposure controls

Appropriate engineering controls

: Emergency eye wash fountains and safety showers should be 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 equipment

: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for protective clothing

: Chemically resistant materials and fabrics.

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Paste
Appearance	: Light yellow
Color	: Clear
Odor	: Characteristic
Odor threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available

CV1-1142-4

Safety Data Sheet

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

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, CO₂). Silicon oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

2-Butanone, O,O',O''-(methylsilyldiyl)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 (mg/l)	> 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

CV1-1142-4

Safety Data Sheet

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

Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
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.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified.

2-Butanone, O,O',O''-(methylsilyldiyl)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)
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)

12.2. Persistence and degradability

CV1-1142-4	
Persistence and degradability	Not established.
Dibutyltin dilaurate (77-58-7)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

CV1-1142-4	
Bioaccumulative potential	Not established.
Dibutyltin dilaurate (77-58-7)	
Log Pow	4.44

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

CV1-1142-4

Safety Data Sheet

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste disposal recommendations : Dispose of contents/container in accordance with local, regional, national, and international regulations.
- Additional information : Container may remain hazardous when empty. Continue to observe all precautions.
- Ecology - waste materials : Avoid 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, or not disclosed due to CBI requirements or disclosure rules according to the relevant regulation.

CV1-1142-4

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''-(methylsilyldiylidene)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. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

CV1-1142-4

Safety Data Sheet

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

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

Revision date : 05/05/2020
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 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
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
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

CV1-1142-4

Safety Data Sheet

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

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

NFPA health hazard

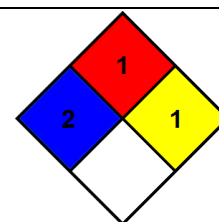
2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

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

The information provided in this Safety Data Sheet (SDS) was prepared based on data believed to be accurate as of the date of this SDS. TO THE GREATEST EXTENT PERMITTED BY LAW, NUSIL TECHNOLOGY LLC AND ITS AFFILIATED COMPANIES ("NUSIL") EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES REGARDING THE INFORMATION CONTAINED HEREIN INCLUDING, WITHOUT LIMITATION, AS TO ACCURACY, COMPLETENESS, FITNESS FOR PURPOSE OR USE, MERCHANTABILITY, NON-INFRINGEMENT, PERFORMANCE, SAFETY, SUITABILITY AND STABILITY. This SDS is intended as a guide to the appropriate use, handling, storage and disposal of the product to which it relates by properly trained personnel, and is not intended to be comprehensive. Users of NuSil's products are advised to perform their own tests and to exercise their own judgment to determine the safety, suitability and appropriate use, handling, storage and disposal of each product and product combination for their own purposes and uses. TO THE GREATEST EXTENT PERMITTED BY LAW, NUSIL DISCLAIMS LIABILITY FOR, AND BY USING NUSIL'S PRODUCTS PURCHASER AGREES THAT UNDER NO CIRCUMSTANCES SHALL NUSIL BE LIABLE FOR, SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY TYPE OR KIND, INCLUDING WITHOUT LIMITATION, FOR LOSS OF PROFITS, REPUTATIONAL DAMAGE, PRODUCT RECALL OR BUSINESS INTERRUPTION.

Nusil US GHS SDS