

# Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 06/14/2017

Version: 5.0 03/11/2014

# **SECTION 1: Identification**

#### 1.1. Product identifier

Product form Mixture Product Name CV1-1144-0

Synonyms Controlled Volatility RTV Silicone

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

Use of the substance/mixture For applications requiring low outgassing and minimal volatile

condensables.

# 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 : 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

Flam. Lia. 2 H225 Skin Irrit. 2 H315 Skin Sens. 1 H317 STOT SE 3 H336 STOT RE 2 H373 Asp. Tox. 1 H304 Aquatic Acute 2 H401 Aquatic Chronic 2 H411

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

### 2.2. Label elements

#### **GHS-US** labeling

Hazard pictograms (GHS-US)









Signal word (GHS-US) Danger

Hazard statements (GHS-US) H225 - Highly flammable liquid and vapor

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction H336 - May cause drowsiness or dizziness

H373 - May cause damage to organs through prolonged or

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# Precautionary statements (GHS-US)

repeated exposure

H401 - Toxic to aquatic life

H411 - Toxic to aquatic life with long lasting effects

P210 - Keep away from heat, open flames, sparks. - No smoking.

P233 - Keep container tightly closed.

P240 - Ground/Bond container and receiving equipment.

P241 - Use explosion-proof electrical, lighting, ventilating equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P260 - Do not breathe fume, vapors.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER.

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 - If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P312 - Call a doctor, a POISON CENTER if you feel unwell.

P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see see section 4 on this SDS).

P331 - Do NOT induce vomiting.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use appropriate media to extinguish.

P391 - Collect spillage.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P403+P235 - Store in a well-ventilated place. Keep cool.

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 those with pre-existing eye, skin, or respiratory conditions.

#### 2.4. Unknown acute toxicity (GHS US)

35 - 40 of the mixture consists of ingredients of unknown acute toxicity.

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# **SECTION 3: Composition/Information on ingredients**

# 3.1. Substances

Not applicable

# 3.2. Mixture

Name	Product identifier	%	GHS-US classification
Solvent naphtha,	(CAS-No.) 64742-89-8	40 - 45	Flam. Liq. 2, H225
petroleum, light			Skin Irrit. 2, H315
aliphatic			STOT SE 3, H336
			Asp. Tox. 1, H304
			Aquatic Acute 2, H401
			Aquatic Chronic 2, H411
2-Butanone,	(CAS-No.) 22984-54-9	5 - 10	Eye Irrit. 2A, H319
0,0',0"-			Skin Sens. 1B, H317
(methylsilylidyne)tri			STOT RE 2, H373
oxime			
Silanamine, 1,1,1-	(CAS-No.) 68909-20-6	5 - 10	Not classified
trimethyl-N-			
(trimethylsilyl)-,			
hydrolysis products			
with silica			
N-[3-	(CAS-No.) 1760-24-3	< 1	Acute Tox. 4 (Inhalation:dust,mist), H332
(TrimethoxysilyI)pro			Eye Dam. 1, H318
pyl]-1,2-			Skin Sens. 1, H317
ethanediamine			Aquatic Acute 2, H401

Full text of H-phrases: see section 16

# **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

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First-aid measures general	Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. If exposed or concerned: Get medical advice/attention.
First-aid measures after	Obtain medical attention if breathing difficulty persists.
inhalation	Remove person to fresh air and keep comfortable for
	breathing. Call a POISON CENTER/doctor/physician if you feel unwell.
First-aid measures after skin contact	Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Obtain medical attention if irritation develops or persists. Get medical advice/attention.
First-aid measures after eye	Obtain medical attention if irritation develops or persists. Rinse
contact	cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after	Rinse mouth. Do NOT induce vomiting. IF SWALLOWED:
ingestion	Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/effects May be fatal if swallowed and enters airways. Causes skin

irritation. May cause an allergic skin reaction. May cause drowsiness and dizziness. May cause damage to organs

through prolonged or repeated exposure.

Symptoms/effects after

inhalation

May cause drowsiness or dizziness.

Symptoms/effects after skin

contact

Causes skin irritation. May cause an allergic skin reaction.

Symptoms/effects after eye

contact

May cause eye irritation.

Symptoms/effects after

ingestion

May be fatal if swallowed and enters airways. Aspiration into the lungs can cause severe pulmonary edema/hemorrhage.

Chronic symptoms May cause damage to organs through prolonged or

repeated exposure.

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

If you feel unwell, seek medical advice (show the label where possible).

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

5.1. Extinguishing media

Suitable extinguishing media dry chemical powder, alcohol-resistant foam, carbon dioxide

(CO<sub>2</sub>). Use extinguishing media appropriate for surrounding

fire.

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 Highly flammable liquid and vapor.

Explosion hazard May form flammable/explosive vapor-air mixture.

Reactivity Stable at ambient temperature and under normal conditions

of use.

5.3. Advice for firefighters

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

Use special care to avoid static electric charges. Keep away

from heat, sparks, open flames, hot surfaces. – No smoking. Avoid breathing (vapor, mist, spray). Use only outdoors or in a well-ventilated area. Avoid all eyes and skin contact and do not breathe vapor and mist. Handle in accordance with good industrial hygiene and safety practice. Do not allow product

to spread into the environment.

6.1.1. For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

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#### 6.1.2. For emergency responders

Protective equipment Equip cleanup crew with proper protection. Use appropriate

personal protective equipment (PPE).

Emergency procedures Stop leak if safe to do so. Eliminate ignition sources. Ventilate

area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

For containment Absorb and/or contain spill with inert material, then place in

suitable container. Do not take up in combustible material

such as: saw dust or cellulosic material.

Methods for cleaning up Clean up spills immediately and dispose of waste safely.

Collect spillage.

#### 6.4. Reference to other sections

See Section 8, Exposure Controls and Personal Protection.

# **SECTION 7: Handling and storage**

# 7.1. Precautions for safe handling

Additional hazards when Hot organic chemical vapors or mists are susceptible to spontaneous combustion when mixed with air, ignition may

occur below auto ignition temperature. Ignition temperatures

will decrease with increasing vapor volumes, vapor air contact time, and pressure changes. Ignition may occur at elevated-temperature process conditions, especially under a

vacuum. . Handle empty containers with care because

residual vapors are flammable.

Precautions for safe handling Obtain special instructions before use. Do not handle until all

safety precautions have been read and understood. Use only non-sparking tools. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Avoid breathing mist, spray, vapors. Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety procedures. Wear a self-contained breathing

apparatus and appropriate personal protective equipment

(PPE).

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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated

clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures Proper grounding procedures to avoid static electricity should

be followed. Ground/bond container and receiving

equipment. Use explosion-proof electrical/ventilating/lighting

equipment.

Storage conditions Keep in fireproof place. Store in a well-ventilated place. Keep

container tightly closed. Store locked up.

Incompatible materials Halogens. Strong acids. Strong bases. Strong oxidizers.

Storage area Store locked up. Store in a well-ventilated place. Keep cool.

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# 7.3. Specific end use(s)

For applications requiring low outgassing and minimal volatile condensables.

# 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/m³
USA OSHA	OSHA PEL (TWA) (ppm)	20 mppcf (80mg/m <sup>3</sup> /%SiO <sub>2</sub> )

# 8.2. Exposure controls

Personal protective

Appropriate engineering Ensure all national/local regulations are observed. Gas

controls detectors should be used when flammable gases/vapors may

be released. Proper grounding procedures to avoid static

electricity should be followed. Use explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

Full protective flameproof clothing. Gloves. Gas mask.

equipment Protective goggles.



Materials for protective Wear fire/flame resistant/retardant clothing. anti-static clothing in natural material or heat resistant synthetic

material. Chemically resistant materials and fabrics.

Hand protection Wear chemically resistant protective gloves.

Eye protection Chemical goggles or safety glasses.
Skin and body protection Wear suitable protective clothing.
Respiratory protection Wear respiratory protection.

Thermal hazard protection Wear suitable protective clothing.

Environmental exposure Do not allow the product to be released into the

controls environment.

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 : Colorless
Odor : Solvent

Odor threshold : No data available
pH : No data available
Evaporation Rate : No data available
Melting point : No data available
Freezing point : No data available

Boiling point : 118 - 150 °C (244.4 - 302 °F)

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Flash point : 14 - 20 °C (57.2 - 68 °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 : 0.9

Solubility : No data available Partition coefficient: n-octanol/water : No data available Viscosity : No data available

9.2. Other information

VOC content 40 - 45 %

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

#### 10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Sparks. Direct sunlight. Extremely high or low temperatures. Open flame.

#### 10.5. Incompatible materials

Halogens. Strong acids. Strong bases. Strong oxidizers.

#### 10.6. Hazardous decomposition products

Silicon oxides. Nitrogen oxides. May release methyl ethyl ketoxime (2-butanone oxime) at elevated temperature. Formaldehyde. Carbon oxides (CO, CO2). May release flammable gases.

# **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity Not classified

CV1-1144-0		
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 (mg/l)	> 1.49 mg/l/4h	
Solvent naphtha, petroleum, light aliphatic (64742-89-8)		
LD50 oral rat	> 5000 mg/kg	
LD50 dermal rabbit	3000 mg/kg	

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Not classified

Respiratory or skin sensitization May cause an allergic skin reaction.

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Germ cell mutagenicity Not classified Carcinogenicity Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity - single : May cause drowsiness or dizziness.

exposure

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

prolonged or repeated exposure. exposure

Aspiration hazard May be fatal if swallowed and enters airways.

Symptoms/effects after

May cause drowsiness or dizziness.

inhalation

Symptoms/effects after skin

contact

Causes skin irritation. May cause an allergic skin reaction.

Symptoms/effects after eye

contact

May cause eye irritation.

Symptoms/effects after May be fatal if swallowed and enters airways. Aspiration into ingestion

the lungs can cause severe pulmonary edema/hemorrhage.

Chronic symptoms May cause damage to organs through prolonged or

repeated exposure.

# **SECTION 12: Ecological information**

12.1. Toxicity

Ecology - general Toxic to aquatic life with long lasting effects. Ecology - water Toxic 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-(TrimethoxysilyI)propyI]-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)	

12.2. Persistence and degradability

	**** ···· /
CV1-1144-0	
Persistence and degradability	Not established. May cause long-term adverse effects in the
	environment.

#### 12.3. Bioaccumulative potential

CV1-1144-0	
Bioaccumulative potential	Not established.

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Other information Avoid release to the environment.

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# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Product/Packaging disposal

recommendations

Dispose of waste material in accordance with all local,

regional, national, and international regulations.

Additional information Handle empty containers with care because residual vapors

are flammable.

Ecology - waste materials Hazardous waste due to toxicity. This material is hazardous to

the aquatic environment. Keep out of sewers and waterways.

# **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** :PETROLEUM DISTILLATES, N.O.S.

Hazard Class 3

**Identification Number** :UN1268

Label Codes 3
Packing Group 3

Marine Pollutant :Marine pollutant

ERG Number :128

#### 14.2. In Accordance with IMDG

**Proper Shipping Name** :PETROLEUM DISTILLATES, N.O.S.

Hazard Class 3

Identification Number :UN1268

Packing Group :||
Label Codes :3
EmS-No. (Fire) :F-E
EmS-No. (Spillage) :S-E

Marine Pollutant :Marine pollutant

MFAG Number :128

#### 14.3. In Accordance with IATA

**Proper Shipping Name** :PETROLEUM DISTILLATES, N.O.S.

Packing Group :

Identification Number :UN1268

Hazard Class 3
Label Codes 3
ERG Code (IATA) 3H



# **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.

CV1-1144-0	
SARA Section 311/312 Hazard Classes	Fire hazard
	Immediate (acute) health hazard

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Delayed (chronic) health hazard

# 15.2. US State regulations

# 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

#### Solvent naphtha, petroleum, light aliphatic (64742-89-8)

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

#### 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

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

Date of Preparation or Latest

Revision

Other information

06/14/2017

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 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1B	Skin sensitization, category 1B
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2

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STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H373	May cause damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard 2 - Materials that, under emergency

conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

3 - Liquids and solids (including finely

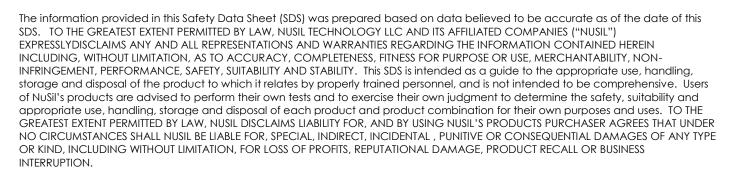
divided suspended solids) that can be ignited under almost all ambient

temperature conditions.

NFPA reactivity 0 - Material that in themselves are

normally stable, even under fire

conditions.



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