



According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 01/10/2019

Date of issue: 01/10/2019

Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form Mixture
Product name R-1099

Synonyms Silicone Dispersion

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

number Maritime)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 3 H225 Skin Irrit. 2 H315 Eye Irrit. 2A H319 Skin Sens. 1 H317 Repr. 1B H360 STOT SE 3 H336 STOT RE 2 H373 Asp. Tox. 1 H304 Aquatic Acute 3 H402

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

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)







GHS0

Signal word (GHS-US) Dange

Hazard statements (GHS-US) H225 - Flammable liquid and vapor

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness H360 - May damage fertility or the unborn child

H373 - May cause damage to organs (cardiovascular system, hematopoietic system) through prolonged or repeated exposure

H402 - Harmful to aquatic life

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Precautionary statements (GHS-

US)

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

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

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

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

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P260 - Do not breathe vapors, mist, spray.

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 gloves, protective clothing, eye protection, face protection, respiratory protection.

P301+P310 - If swallowed: Immediately call a poison center or doctor.

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.

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.

P331 - Do NOT induce vomiting.

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

P337+P313 - If eye irritation persists: 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. P403+P233+P235+P405 - Store in a well-ventilated place. Keep container tightly closed. Keep cool. 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. Flammable vapors can accumulate in head space of closed systems.

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Name	Product identifier	%	GHS-US classification
Solvent naphtha, petroleum, light aliphatic	(CAS-No.) 64742-89-8	50 - 70	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Asp. Tox. 1, H304 Aquatic Acute 3, H402
2-Butanone, O,O',O"- (methylsilylidyne)trioxime	(CAS No) 22984-54-9	< 20	Eye Irrit. 2A, H319 Skin Sens. 1B, H317 STOT RE 2, H373
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica	(CAS No) 68909-20-6	<10	Not classified
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

Full text of H-phrases: see section 16

SECTION 4: First aid measures

Description of first aid measures

4.1. Description of first did med	sures
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. Remove to fresh air and keep at rest in a position 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. Call a POISON CENTER or doctor/physician if you feel unwell.
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	Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.
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	CENIER or doctor/physician.
4.2. Most important symptoms	and effects, both acute and delayed
Symptoms/injuries	May cause drowsiness or dizziness. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May be fatal if swallowed and enters airways. May cause damage to organs (cardiovascular, hematopoietic system) through prolonged or repeated exposure. May damage fertility or the unborn child.
Symptoms/injuries after inhalation	May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	Causes skin irritation. May cause an allergic skin reaction. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis.
Symptoms/injuries after eye contact	Causes serious eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.
Symptoms/injuries after ingestion	May be fatal if swallowed and enters airways.
Chronic symptoms	May cause damage to organs through prolonged or repeated exposure. May damage fertility or the unborn child.

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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, carbon dioxide, water spray, foam, fog.

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 Flammable liquid and vapor.

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

Reactivity Reacts with (strong) oxidizers: (increased) risk of fire.

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. In case of

major fire and large quantities: Evacuate area. Fight fire remotely

due to the risk of explosion.

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

including respiratory protection.

Other information Do not allow run-off from fire fighting to enter drains or water

courses.

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).

6.1.1. For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment Equip cleanup crew with proper protection.

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 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. 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. Dispose in a safe manner in accordance with local/national regulations. Contact competent authorities after a

spill.

6.4. Reference to other sections

See heading 8, Exposure Controls and Personal Protection. For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when Handle empty containers with care because residual vapors are

processed flammable.

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

precautions have been read and understood. Avoid breathing fumes. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Take precautionary measures against static discharge. Use

only non-sparking tools.

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 Ground/bond container and receiving equipment. Use explosion-

proof electrical, lighting, ventilating equipment.

Storage conditions Store locked up. Store in a dry, cool and well-ventilated place. Keep

container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Keep away from heat, sparks and flame. Keep in fireproof

place.

Incompatible products Strong acids. Strong bases. Strong oxidizers.

7.3. Specific end use(s)

For marking and printing applications. 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/m³	
USA OSHA	OSHA PEL (TWA) (ppm)	20 mppcf (80mg/m³/%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. Gas 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. Take precautionary measures against static discharges. Ensure all national/local

regulations are observed.

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Personal protective equipment Protective clothing. Protective goggles. Gloves. Insufficient

ventilation: wear respiratory protection.









Materials for protective clothing Chemically resistant materials and fabrics. Wear fire/flame

resistant/retardant clothing.

Hand protection Wear chemically resistant protective gloves.

Eye protection Chemical safety goggles.

Skin and body protection Wear suitable protective clothing.

Respiratory protection Use a NIOSH-approved respirator or self-contained breathing

apparatus whenever exposure may exceed established

Occupational Exposure Limits.

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 : Translucent
Odor : Solvent

Odor threshold : No data available На : No data available **Evaporation Rate** : No data available Melting point : No data available Freezing point : No data available : 99 °C (210 °F) Boiling point Flash point : 17 °C (63 °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 : >1

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

9.2. Other information

VOC content 50 - 70 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with (strong) oxidizers: (increased) risk of fire.

10.2. Chemical stability

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

Direct sunlight, extremely high or low temperatures, open flames, sources of ignition and incompatible materials.

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10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2). May release flammable gases. Hydrocarbons. Smoke. Silicon oxides. Toxic vapors. Will decompose above 150 °C (>300° F) releasing formaldehyde vapors. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitizer. Formaldehyde can also cause respiratory and eye irritation.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity Not classified

Solvent naphtha, petroleum, light aliphatic (64742-89-8)		
LD50 oral rat	> 5000 mg/kg	
LD50 dermal rabbit	3000 mg/kg	
2-Butanone, O,O',O"-(methylsilylidyne)trioxime (22984-54-9)		
LD50 oral rat	2463 mg/kg	
LD50 dermal rat	> 2000 mg/kg	
Dibutyltin dilaurate (77-58-7)		
LD50 dermal rat	> 2 g/kg	

Skin corrosion/irritation Causes skin irritation. 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 exposure) : May cause drowsiness or dizziness.

Specific target organ toxicity (repeated : May cause damage to organs (cardiovascular system,

exposure)

hematopoietic system) through prolonged or

repeated exposure.

Aspiration hazard May be fatal if swallowed and enters airways.

Symptoms/injuries after inhalation May cause drowsiness or dizziness.

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

may include: Redness, pain, swelling, itching, burning, dryness, and

dermatitis.

Symptoms/injuries after eye

contact

Symptoms/injuries after ingestion

Chronic symptoms

Causes serious eye irritation. Symptoms may include: Redness, pain,

swelling, itching, burning, tearing, and blurred vision.

May be fatal if swallowed and enters airways.

May cause damage to organs through prolonged or repeated

exposure. May damage fertility or the unborn child.

SECTION 12: Ecological information

12.1. Toxicity

contact

Ecology - general Harmful to aquatic life.

2-Butanone, O,O',O"-(methylsilylidyne)trioxime (22984-54-9)		
EC50 Daphnia 1	120 mg/l (Exposure time: 48h - Species: Daphnia magna)	
Dibutyltin dilaurate (77-58-7)		
EC50 Daphnia 1	0.463 mg/l (Daphnia magna)	

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal This material is hazardous to the aquatic environment. Keep out of

recommendations sewers and waterways.

Waste 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.

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 : II
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 : II
Label Codes : 3
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E
MFAG Number : 128



14.3. In Accordance with IATA

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

Packing Group : II

Identification Number: UN1268

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



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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.

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SARA Section 311/312 Hazard	Delayed (chronic) health hazard
Classes	Immediate (acute) health hazard Fire hazard

15.2. US State regulations

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

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

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

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

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

Revision date 01/10/2019

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:

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Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:vapor)	Acute toxicity (inhalation:vapor) 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 Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
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

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Flam. Liq. 3	Flammable liquids Category 3
Muta. 2	Germ cell mutagenicity Category 2
Repr. 1B	Reproductive toxicity Category 1B
Repr. 2	Reproductive toxicity Category 2
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
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
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
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
H341	Suspected of causing genetic defects
H360	May damage fertility or the unborn child
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure

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	H373	May cause damage to organs through prolonged or repeated exposure
	H400	Very toxic to aquatic life
	H401	Toxic to aquatic life
	H402	Harmful to aquatic life
	H410	Very toxic to aquatic life with long lasting effects
	health hazard	2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard NFPA reactivity		 3 - Liquids and solids that can be ignited under almost all ambient conditions. 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
Healt	mability	2 Moderate Hazard - Temporary or minor injury may occur 3 Serious Hazard 0 Minimal Hazard

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