R-3930



Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 02/10/2021 Date of issue: 06/16/2014

Version: 3.0

SECTION 1: Identification

1.1. Product identifier

Product form Mixture
Product name R-3930

Synonyms Fluorosilicone Dispersion

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

Use of the substance/mixture For coating, sealing and bonding applications requiring solvent

and/or fuel resistance. 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. 2 H225 Skin Irrit. 2 H315 Eye Dam. 1 H318 STOT SE 3 H335

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

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



Danger





Signal word (GHS-US)

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

H315 - Causes skin irritation

H318 - Causes serious eye damage H335 - May cause respiratory irritation

Precautionary statements (GHS-

US)

P210 - Keep away from heat, hot surfaces, 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.

P261 - Avoid breathing mist, spray, vapors.

P264 - Wash hands, forearms, and exposed areas thoroughly after

handling.

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

P273 - Avoid release to the environment.

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

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.

P310 - Immediately call a poison center or doctor.

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

P332+P313 - If skin irritation occurs: Get medical advice/attention.

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

P370+P378 - In case of fire: Use dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂) to extinguish.

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)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
tert-Butyl acetate	(CAS No) 540-88-5	40 – 60	Flam. Liq. 2, H225
Siloxanes and Silicones, methyl 3,3,3- trifluoropropyl, hydroxy-terminated	(CAS No) 68607-77-2	30 – 50	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Silanetriol, methyl-, triacetate	(CAS No) 4253-34-3	< 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Eye Dam. 1, H318
Silanetriol, ethyl-, triacetate	(CAS No) 17689-77-9	< 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318

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 if possible).

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First-aid measures after inhalation 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 followed by rinsing with water for at least 15 minutes. Call a POISON CENTER or doctor/physician if you feel unwell. Wash

contaminated clothing before reuse.

First-aid measures after eye

contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion Do NOT induce vomiting. Rinse mouth. Immediately call a POISON

CENTER or doctor/physician.

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

Symptoms/injuries Causes skin irritation. Causes serious eye damage. May cause

respiratory irritation.

Symptoms/injuries after inhalation

Symptoms/injuries after skin

contact

May cause respiratory irritation.

Causes skin irritation.

Symptoms/injuries after eye

contact

Causes serious eye damage.

Symptoms/injuries after ingestion Ingestion is likely to be harmful or have adverse effects.

Chronic symptoms None expected under normal conditions of use.

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

Highly flammable liquid and vapor. Vapors may travel to source of Fire hazard

ianition and flash back.

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. Do not breathe

fumes from fires or vapors from decomposition.

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 Refer to Section 9 for flammability properties.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures Keep away from heat, sparks, open flames, hot surfaces. - No

smoking. Use only non-sparking tools. Avoid all eyes and skin contact

and do not breathe vapor and mist.

6.1.1. For non-emergency personnel

Protective equipment Use appropriate personal protection equipment (PPE).

Emergency procedures Evacuate unnecessary personnel.

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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. Notify authorities if liquid enters sewers or 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. Spills should

be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when When heated, material emits irritating fumes. When mixed with air processed and exposed to an ignition source, flammable vapors can burn in

and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard. Any proposed use 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 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

closed when not in use. Keep away from ignition sources (including static discharges). Keep/Store away from direct sunlight, extremely

high or low temperatures and incompatible materials.

Incompatible products Strong acids. Strong bases. Strong oxidizers. Metals. Nitrates.

7.3. Specific end use(s)

For coating, sealing and bonding applications requiring solvent and/or fuel resistance. 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).

tert-Butyl acetate (540-88-5)			
USA ACGIH	ACGIH TWA (ppm)	200 ppm	
USA OSHA	OSHA PEL (TWA) (mg/m³)	950 mg/m³	
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm	

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8.2. Exposure controls

Appropriate engineering controls Ensure adequate ventilation, especially in confined areas. Proper

grounding procedures to avoid static electricity should be followed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Gas detectors should be used when flammable gases/vapors may be released. Ensure all national/local regulations are observed.

Personal protective equipment Avoid all unnecessary exposure. Protective goggles. Gloves.

Protective clothing, Insufficient ventilation: wear respiratory

protection. Face shield.











Materials for protective clothing

Hand protection Eve protection

Respiratory protection

Skin and body protection

Wear fire/flame resistant/retardant clothing. Wear chemically resistant protective gloves. Chemical safety goggles.

Wear suitable protective clothing.

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.

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 : No data available На

Evaporation Rate : 2.8

Melting point : No data available Freezing point : No data available : 98 °C (208.4 °F) Boiling point Flash point : -4.4 °C (24.1 °F) Auto-ignition Temperature : No data available Decomposition temperature : No data available Flammability (solid, gas) : No data available

Vapor pressure : 41.5 mm Hg @ 25 °C (77 °F)

Relative vapor density at 20 °C : No data available Relative density : No data available

Specific Gravity

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

9.2. Other information

VOC content 40 - 60%

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SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Can form explosive mixture with air.

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 oxidizers. Strong acids. Strong bases. Metals. Nitrates.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Silicon oxides. Hydrocarbons. 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. . Oxides of tin. Fluorine compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity Not classified

Silanetriol, methyl-, triacetate (4253-34-3)	
LD50 oral rat	1437 - 1780 mg/kg
tert-Butyl acetate (540-88-5)	
LD50 oral rat	4500 mg/kg
LD50 dermal rabbit	> 2000
LC50 inhalation rat (mg/l)	> 2230 mg/m³ (Exposure time: 4 h)
LC50 inhalation rat (mg/l)	13.3 mg/l/4h
LC50 inhalation rat (ppm)	5157 ppm/4h
Silanetriol, ethyl-, triacetate (17689-77-9)	
LD50 oral rat	1460 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes serious eye damage.

Respiratory or skin sensitization

Germ cell mutagenicity

Carcinogenicity

Not classified

Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated : Not classified

exposure)

Aspiration hazard Not classified

Symptoms/injuries after inhalation May cause respiratory irritation.

Symptoms/injuries after skin Causes skin irritation.

contact

Symptoms/injuries after eye Causes serious eye damage.

contact

Symptoms/injuries after ingestion Ingestion is likely to be harmful or have adverse effects.

Chronic symptoms None expected under normal conditions of use.

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SECTION 12: Ecological information

12.1. Toxicity

tert-Butyl acetate (540-88-5)	
LC50 fish 1	296 - 362 mg/l (Exposure time: 96 h - Species: Pimephales promelas
	[flow-through])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

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Silanetriol, methyl-, triacetate (4253-34-3)	
Log Pow	0.25 KowWin
tert-Butyl acetate (540-88-5)	
Log Pow	1.38

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 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 Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1.UN number

UN-No.(DOT) 2924 DOT NA no. UN2924

14.2. UN proper shipping name

Proper Shipping Name (DOT) Flammable liquids, corrosive, n.o.s. (Butyl Acetates mixture)
Transport hazard class(es) 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

(DOT)

Hazard labels (DOT) 3 - Flammable liquid

8 - Corrosive



DOT Symbols G - Identifies PSN requiring a technical name

Packing group (DOT) II - Medium Danger

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DOT Special Provisions (49 CFR

172.102)

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized

T4 - 2.65 178.274(d)(2) Normal...... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + α (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid

during filling

150

DOT Packaging Exceptions (49

CFR 173.xxx)

DOT Packaging Non Bulk (49 CFR 202

173.xxx)

DOT Packaging Bulk (49 CFR 242

173.xxx)

14.3. Additional information

Emergency Response Guide

(ERG) Number

Other information No supplementary information available.

128

1 L

5 L

Transport by sea

DOT Vessel Stowage Location A - The material may be stowed "on deck" or "under deck"

on a cargo vessel and on a passenger vessel.

DOT Vessel Stowage Other

40 - Stow "clear of living quarters"

Subsidiary risks (IMDG) 8 EmS-No. (1) F-E MFAG-No 130 EmS-No. (2) S-C

Air transport

DOT Quantity Limitations

Passenger aircraft/rail (49 CFR

173.27)

DOT Quantity Limitations

Cargo aircraft only (49 CFR

175.75)

Subsidiary risks (IATA) 8

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.

Treferencity (general terms continued continued to the tree tree).		
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SARA Section 311/312 Hazard Classes	Fire hazard	
	Immediate (acute) health hazard	

15.2. US State regulations

Silanetriol, methyl-, triacetate (4253-34-3) U.S. - Texas - Effects Screening Levels - Long Term

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

tert-Butyl acetate (540-88-5)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities

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- U.S. Delaware Volatile Organic Compounds Exempt from Requirements
- U.S. Idaho Non-Carcinogenic Toxic Air Pollutants Acceptable Ambient Concentrations
- U.S. Idaho Non-Carcinogenic Toxic Air Pollutants Emission Levels (ELs)
- U.S. Idaho Occupational Exposure Limits TWAs
- U.S. Louisiana Reportable Quantity List for Pollutants
- U.S. Massachusetts Oil & Hazardous Material List Groundwater Reportable Concentration Reporting Category 1
- U.S. Massachusetts Oil & Hazardous Material List Groundwater Reportable Concentration Reporting Category 2
- U.S. Massachusetts Oil & Hazardous Material List Reportable Quantity
- U.S. Massachusetts Oil & Hazardous Material List Soil Reportable Concentration Reporting Category 1
- U.S. Massachusetts Oil & Hazardous Material List Soil Reportable Concentration Reporting Category 2
- RTK U.S. Massachusetts Right To Know List
- U.S. Massachusetts Toxics Use Reduction Act
- U.S. Michigan Occupational Exposure Limits TWAs
- U.S. Michigan Polluting Materials List
- U.S. Minnesota Hazardous Substance List
- U.S. Minnesota Permissible Exposure Limits TWAs
- U.S. New Hampshire Regulated Toxic Air Pollutants Ambient Air Levels (AALs) Annual
- U.S. New Jersey Discharge Prevention List of Hazardous Substances
- RTK U.S. New Jersey Right to Know Hazardous Substance List
- U.S. New Jersey Special Health Hazards Substances List
- U.S. New York Occupational Exposure Limits TWAs
- U.S. New York Reporting of Releases Part 597 List of Hazardous Substances
- U.S. North Dakota Air Pollutants Guideline Concentrations 8-Hour
- U.S. Oregon Permissible Exposure Limits TWAs
- RTK U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- RTK U.S. Pennsylvania RTK (Right to Know) List
- U.S. Tennessee Occupational Exposure Limits TWAs
- U.S. Texas Effects Screening Levels Long Term
- U.S. Texas Effects Screening Levels Short Term
- U.S. Vermont Permissible Exposure Limits TWAs
- U.S. Washington Permissible Exposure Limits STELs
- U.S. Washington Permissible Exposure Limits TWAs

Silanetriol, ethyl-, triacetate (17689-77-9)

- 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 02/10/2021

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 (Oral)	Acute toxicity (oral) Category 4
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 Corr. 1B	Skin corrosion/irritation Category 1B

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Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation

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 3 - Liquids and solids that can be ignited

under almost all ambient conditions.

NFPA reactivity 0 - Normally stable, even under fire

exposure conditions, and are not reactive

with water.

HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard Physical : 0 Minimal Hazard

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