

CF1-3510 Part A

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 05/02/2023 Date of Issue: 08/25/2014

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NuSil™

Version 5.0

SECTION 1: Identification

1.1. Product Identifier

Product Form Mixture
Product Name CF1-3510 Part A
Synonyms Fluorosilicone Elastomer

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
productstewardship@avantorsciencesgcc.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

Reproductive toxicity Category 1B H360

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



GHS08

Signal Word (GHS-US)

Danger

Hazard Statements (GHS-US)

H360 - May damage fertility or the unborn child

Precautionary Statements (GHS-US)

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves, protective clothing, and eye protection.
P308+P313 - If exposed or concerned: Get medical advice/attention.
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.

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2.4. Unknown Acute Toxicity (GHS-US)

No additional information available

SECTION 3: Composition/Information On Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product Identifier	%*	GHS-US Classification
Iron oxide (Fe ₂ O ₃)	(CAS-No.) 1309-37-1	7 - 13	Combustible Dust
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	(CAS-No.) 68909-20-6	3 - 7	Not classified
Methyl vinylcyclosiloxane	(CAS-No.) 2554-06-5	1 - 5	Repr. 1B, H360

Full text of H-phrases: see section 16

*The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200].

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. Wash affected area with soap and water for at least 5 minutes. If exposed or concerned: Get medical advice/attention.

First-aid Measures After Eye Contact

Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

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

May damage fertility. Suspected of damaging the unborn child.

Symptoms/Injuries After Inhalation

Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact

Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact

May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion

Ingestion may cause adverse effects.

Chronic Symptoms

May damage fertility. Suspected of damaging the unborn child.

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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, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

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.

Hazardous Combustion Products Carbon oxides (CO, CO₂). Formaldehyde. Hydrogen fluoride. Metal oxides. Nitrogen oxides. Silicon oxides.

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 Materials 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. 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.

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SECTION 7: Handling And Storage

7.1. Precautions for Safe Handling

Additional Hazards When Processed

Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapors.

Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, mist, spray. Avoid contact with skin, eyes and clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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. Store locked up/in a secure area.

Incompatible Materials

Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(S)

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).

Iron oxide (Fe2O3) (1309-37-1)		
USA ACGIH	ACGIH OEL TWA	5 mg/m ³ (respirable particulate matter)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA NIOSH	NIOSH REL (TWA)	5 mg/m ³ (dust and fume)
USA OSHA	OSHA PEL (TWA) [1]	10 mg/m ³ (fume) 15 mg/m ³ (total dust (Rouge)) 5 mg/m ³ (respirable fraction (Rouge))
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica (68909-20-6)		
USA OSHA	OSHA PEL (TWA) [1]	6 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	20 mppcf (80mg/m ³ /%SiO ₂)

8.2. Exposure Controls

Appropriate Engineering Controls

Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

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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 And Face 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	Liquid
Appearance	Red
Odor	Odorless
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	No data available
Flash Point	> 135 °C (275 °F)
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Flammability (solid, gas)	Not applicable
Vapor Pressure	No data available
Relative Vapor Density at 20°C	No data available
Relative Density	> 1 (Water = 1)
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).

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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

Thermal decomposition may produce: Carbon oxides (CO, CO₂). Hydrogen fluoride. Metal oxides. Nitrogen oxides. Silicon oxides. 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 (Oral) Not classified

Acute Toxicity (Dermal) Not classified

Acute Toxicity (Inhalation) Not classified

Iron oxide (Fe ₂ O ₃) (1309-37-1)	
LD50 Oral Rat	> 10000 mg/kg

Methyl vinylcyclosiloxane (2554-06-5)	
LD50 Oral Rat	> 4800 mg/kg (Read accross, no deaths)
LD50 Dermal Rabbit	> 2000 mg/kg (no deaths)
LC50 Inhalation Rat	> 1.32 mg/l/4h (Species: Sprague-Dawley, maximum achievable concentration, no deaths)

Skin Corrosion/Irritation Not classified

Serious Eye Damage/Irritation Not classified

Respiratory or Skin Sensitization Not classified

Germ Cell Mutagenicity Not classified

Carcinogenicity Not classified

Iron oxide (Fe ₂ O ₃) (1309-37-1)	
IARC Group	3

Reproductive Toxicity May damage fertility. Suspected of damaging the unborn child.

Specific Target Organ Toxicity (Single Exposure) Not classified

Specific Target Organ Toxicity (Repeated Exposure) Not classified

Aspiration Hazard Not classified

Symptoms/Injuries After Inhalation Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact May cause slight irritation to eyes.

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Symptoms/Injuries After Ingestion	Ingestion may cause adverse effects.
Chronic Symptoms	May damage fertility. Suspected of damaging the unborn child.

SECTION 12: Ecological Information

12.1. Toxicity

Ecology - General Not classified.

Iron oxide (Fe ₂ O ₃) (1309-37-1)	
LC50 Fish 1	100000 mg/l (Exposure time: 96 h - Species: Danio rerio [static])

12.2. Persistence and Degradability

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Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

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Bioaccumulative Potential	Not established.

Methyl vinylcyclosiloxane (2554-06-5)	
Partition coefficient n-octanol/water (Log Pow)	6.47

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 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.

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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, are not listed, not disclosed due to CBI requirements or disclosure rules according to the relevant regulation.

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SARA Section 311/312 Hazard Classes	Health hazard - Reproductive toxicity

15.2. US State Regulations

Iron oxide (Fe ₂ O ₃) (1309-37-1)
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Minnesota - Hazardous Substance List
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Tennessee - Occupational Exposure Limits - TWAs
U.S. - Vermont - Permissible Exposure Limits - TWAs
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Washington - Permissible Exposure Limits - TWAs
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Washington - Permissible Exposure Limits - STELs
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - Oregon - Permissible Exposure Limits - TWAs
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than

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25 Feet
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
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
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

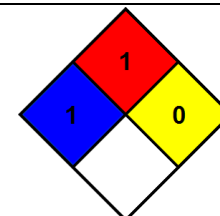
SECTION 16: Other Information, Including Date of Preparation or Last Revision

Date of Preparation or Latest Revision	05/02/2023
Other Information	This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

H360	May damage fertility or the unborn child
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NFPA Health Hazard	1 - Materials that, under emergency conditions, can cause significant irritation.
NFPA Fire Hazard	1 - Materials that must be preheated before ignition can occur.
NFPA Reactivity Hazard	0 - Material that in themselves are normally stable, even under fire conditions.



HMIS III Rating Health	1 Slight Hazard * Chronic - Chronic (long-term) health effects may result from repeated overexposure
Flammability Physical	1 Slight Hazard 0 Minimal 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

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Version 4.0

SECTION 1: Identification

1.1. Product Identifier

Product Form Mixture
Product Name CF1-3510 Part B
Synonyms Fluorosilicone Gel

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
productstewardship@avantorsciencesgcc.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

Reproductive toxicity Category 2 H361

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



GHS08

Warning

Signal Word (GHS-US)

Hazard Statements (GHS-US)

Precautionary Statements (GHS-US)

H361 - Suspected of damaging fertility or the unborn child

P201 - Obtain special instructions before use.

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

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

P308+P313 - If exposed or concerned: Get medical advice/attention.

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.

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2.4. Unknown Acute Toxicity (GHS-US)

No additional information available

SECTION 3: Composition/Information On Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product Identifier	%*	GHS-US Classification
Titanium dioxide	(CAS-No.) 13463-67-7	15-40	Not classified
Trifluoropropylmethylcyclotrisiloxane	(CAS-No.) 2374-14-3	< 1	Repr. 2, H361 STOT RE 1, H372 STOT RE 2, H373

Full text of H-phrases: see section 1.6

*The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200].

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. Wash affected area with soap and water for at least 5 minutes. If exposed or concerned: Get medical advice/attention.

First-aid Measures After Eye Contact

Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

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

Suspected of damaging fertility. Suspected of damaging the unborn child.

Symptoms/Injuries After Inhalation

Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact

Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact

May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion

Ingestion may cause adverse effects.

Chronic Symptoms

Suspected of damaging fertility. Suspected of damaging the unborn child.

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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, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

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 Contact with water, alcohols, acids or bases, and many metals or metallic compounds can liberate flammable Hydrogen gas which can form explosive mixtures in air.

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.

Hazardous Combustion Products Carbon oxides (CO, CO₂). Explosive hydrogen gas.

Formaldehyde. Hydrogen fluoride. Silicon oxides.

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 Materials 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. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

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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

Additional Hazards When Processed

Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapors.

Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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. Store locked up/in a secure area.

Incompatible Materials

Alcohols. Metals. Strong acids, strong bases, strong oxidizers. Water.

7.3. Specific End Use(S)

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).

Titanium dioxide (13463-67-7)		
USA ACGIH	ACGIH OEL TWA	10 mg/m ³
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA NIOSH	NIOSH REL (TWA)	2.4 mg/m ³ (CIB 63-fine) 0.3 mg/m ³ (CIB 63-ultrafine, including engineered nanoscale)
USA OSHA	OSHA PEL (TWA) [1]	15 mg/m ³ (total dust)

8.2. Exposure Controls

Appropriate Engineering Controls

Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

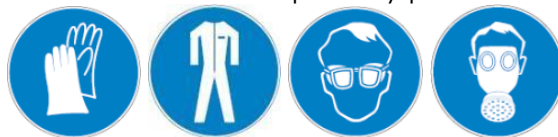
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Personal Protective Equipment

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 And Face 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	Liquid
Appearance	White
Odor	Odorless
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	No data available
Flash Point	> 135 °C (275 °F)
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Flammability (solid, gas)	Not applicable
Vapor Pressure	No data available
Relative Vapor Density at 20°C	No data available
Relative Density	> 1 (Water = 1)
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

Contact with water, alcohols, acids or bases, and many metals or metallic compounds can liberate flammable Hydrogen gas which can form explosive mixtures in air.

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10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions

Evolved hydrogen gas is flammable and may form explosive mixtures with air. Hazardous polymerization will not occur.

10.4. Conditions to Avoid

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

10.5. Incompatible Materials

Alcohols. Metals. Strong acids, strong bases, strong oxidizers. Water.

10.6. Hazardous Decomposition Products

May produce explosive hydrogen gas on contact with incompatibilities or upon thermal decomposition. Thermal decomposition may produce: Carbon oxides (CO, CO₂). Hydrogen fluoride. Silicon oxides. 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 (Oral) Not classified

Acute Toxicity (Dermal) Not classified

Acute Toxicity (Inhalation) Not classified

Titanium dioxide (13463-67-7)	
LD50 Oral Rat	> 10000 mg/kg
LC50 Inhalation Rat	5.09 mg/l/4h

Trifluoropropylmethylcyclotrisiloxane (2374-14-3)	
LD50 Oral Rat	3995 – 5433 mg/kg
LD50 Dermal Rabbit	> 20000 mg/kg
Skin Corrosion/Irritation	Not classified
Serious Eye Damage/Irritation	Not classified
Respiratory or Skin Sensitization	Not classified
Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified

Titanium dioxide (13463-67-7)	
IARC Group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Reproductive Toxicity	Suspected of damaging fertility. Suspected of damaging the unborn child.
Specific Target Organ Toxicity (Single Exposure)	Not classified
Specific Target Organ Toxicity (Repeated Exposure)	Not classified
Aspiration Hazard	Not classified
Symptoms/Injuries After Inhalation	Prolonged exposure may cause irritation.

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Symptoms/Injuries After Skin Contact	Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact	May cause slight irritation to eyes.
Symptoms/Injuries After Ingestion	Ingestion may cause adverse effects.
Chronic Symptoms	Suspected of damaging fertility. Suspected of damaging the unborn child.

SECTION 12: Ecological Information

12.1. Toxicity

Ecology - General Not classified.

Titanium dioxide (13463-67-7)	
LC50 Fish 1	> 1000 ml/l (Exposure Time: 96h - Species: Pimephales promelas (static))

12.2. Persistence and Degradability

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Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

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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.

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

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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, are not listed, not disclosed due to CBI requirements or disclosure rules according to the relevant regulation.

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SARA Section 311/312 Hazard Classes	Health hazard - Reproductive toxicity

15.2. US State Regulations

Titanium dioxide (13463-67-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.

Titanium dioxide (13463-67-7)	
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List	
RTK - U.S. - Pennsylvania - RTK (Right to Know) List	
U.S. - Minnesota - Hazardous Substance List	
RTK - U.S. - Massachusetts - Right To Know List	
U.S. - Tennessee - Occupational Exposure Limits - TWAs	
U.S. - Vermont - Permissible Exposure Limits - TWAs	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)	
U.S. - Washington - Permissible Exposure Limits - TWAs	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)	
U.S. - Washington - Permissible Exposure Limits - STELs	
U.S. - Illinois - Toxic Air Contaminant Carcinogens	
U.S. - New York - Occupational Exposure Limits - TWAs	
U.S. - Michigan - Occupational Exposure Limits - TWAs	
U.S. - Minnesota - Permissible Exposure Limits - TWAs	
U.S. - Oregon - Permissible Exposure Limits - TWAs	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour	
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. - Minnesota - Chemicals of High Concern	
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups	

Trifluoropropylmethylcyclotrisiloxane (2374-14-3)	
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 05/02/2023

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Other Information

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure

NFPA Health Hazard

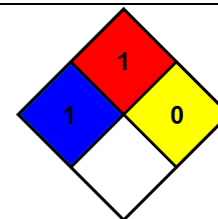
1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA Fire Hazard

1 - Materials that must be preheated before ignition can occur.

NFPA Reactivity Hazard

0 - Material that in themselves are normally stable, even under fire conditions.



HMIS III Rating Health

1 Slight Hazard
* Chronic - Chronic (long-term) health effects may result from repeated overexposure

Flammability Physical

1 Slight Hazard
0 Minimal Hazard

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