

R-2165 Part A

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of Revision: 10/11/2024 Date of Issue: 05/12/2014



Version: 4.0

SECTION 1: Identification

1.1. Product Identifier

Product Form	Mixture
Product Name	R-2165 Part A
Synonyms	Silicone Elastomer

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Use of the Substance/Mixture	For professional use only.
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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)
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SECTION 2: Hazards Identification

2.1. Classification of the Substance or Mixture

GHS-US Classification

Repr. 2	H361
Aquatic Chronic 3	H412

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

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



GHS08

Signal Word (GHS-US)

Hazard Statements (GHS-US)

Precautionary Statements (GHS-US)

Warning

H361 - Suspected of damaging fertility or the unborn child

H412 - Harmful to aquatic life with long-lasting effects

P201 - Obtain special instructions before use.

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

P273 - Avoid release to the environment

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.

R-2165 Part A

Safety Data Sheet

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

2.3. Other Hazards

Other Hazards Not Contributing to the Classification

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: Composition/Information On Ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	%	GHS-US Classification
Quartz*	(CAS No) 14808-60-7	50-70	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Octamethylcyclotetrasiloxane	(CAS-No.) 556-67-2	< 0.25	Flam. Liq. 3, H226 Repr. 2, H361 Aquatic Chronic 1, H410
Carbon black	(CAS No) 1333-86-4	< 0.25	Not classified
Methyl vinylcyclsiloxane	(CAS-No.) 2554-06-5	< 0.1	Repr. 1B, H360

Full text of H-phrases: see section 16

*Finely divided Quartz dust has caused cancer and lung disease in workers that inhale it over an extended period of time. Since this product is in a liquid form, the Quartz dust is not able to become airborne and cannot be inhaled. Thus, the hazards usually associated with Quartz dust are not applicable to this product.

SECTION 4: First Aid Measures

4.1. Description of First-aid Measures

First-aid Measures General

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Inhalation

When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact

Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

First-aid Measures After Eye Contact

Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

First-aid Measures After Ingestion

Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries

Suspected of damaging fertility or the unborn child.

Symptoms/Injuries After Inhalation

Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact

Prolonged exposure may cause skin irritation.

R-2165 Part A

Safety Data Sheet

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

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 or the unborn child.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Suitable Extinguishing Media	: Water spray, dry chemical, foam, carbon dioxide.
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.

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

R-2165 Part A

Safety Data Sheet

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

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling And Storage

7.1. Precautions for Safe Handling

Precautions for Safe Handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. 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, spray).

Hygiene Measures

Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures

Comply with applicable regulations.

Storage Conditions

Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible 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).

Quartz (14808-60-7)		
USA ACGIH	ACGIH OEL TWA	0.025 mg/m ³ (respirable particulate matter)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen
USA NIOSH	NIOSH REL TWA	0.05 mg/m ³ (respirable dust)
USA OSHA	OSHA PEL TWA	50 µg/m ³ (Respirable crystalline silica)
USA OSHA	OSHA PEL TWA	(250)/(%SiO ₂ +5) mppcf TWA (respirable fraction) (10)/(%SiO ₂ +2) mg/m ³ TWA (respirable fraction) (For any operations or sectors for which the respirable crystalline silica standard, 1910.1053, is stayed or otherwise not in effect, See 20 CFR 1910.1000 TABLE Z-3)
Carbon black (1333-86-4)		
USA ACGIH	ACGIH TWA (mg/m ³)	3 mg/m ³ (inhalable fraction)
USA ACGIH	ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA OSHA	OSHA PEL (TWA) (mg/m ³)	3.5 mg/m ³
Octamethylcyclotetrasiloxane (556-67-2)		
USA AIHA	WEEL TWA	10 ppm

R-2165 Part A

Safety Data Sheet

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

8.2. Exposure Controls

Appropriate Engineering Controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment

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



Materials For Protective Clothing

Chemically resistant materials and fabrics.

Hand Protection

Wear protective gloves.

Eye 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	Grey
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
Solubility	No data available
Partition Coefficient n-Octanol/Water	No data available
Viscosity	No data available

9.2. Other Information

VOC content < 1 %

R-2165 Part A

Safety Data Sheet

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

SECTION 10: Stability and Reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability

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

10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

10.4. Conditions to Avoid

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

10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Carbon oxides (CO, CO₂). 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 : Not classified

Quartz (14808-60-7)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg

Carbon black (1333-86-4)	
LD50 Oral Rat	> 8000 mg/kg

Octamethylcyclotetrasiloxane (556-67-2)	
LD50 Oral Rat	> 4800 mg/kg (No mortality)
LD50 Dermal Rat	> 2375 mg/kg
LD50 Dermal Rabbit	> 2.5 ml/kg (No mortality)
LC50 Inhalation Rat	36 mg/l/4h

Methyl vinylcyclosiloxane (2554-06-5)	
LD50 Oral Rat	> 4800 mg/kg (Read across, no deaths)
LD50 Dermal Rabbit	> 2000 mg/kg (no deaths)
LC50 Inhalation Rat	> 1.32 mg/l/4h

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. (This product is in a liquid form; The (CAS No) 14808-60- 7 (Quartz) is not bioavailable nor able to become airborne and cannot be inhaled. Thus, the hazards usually associated with (CAS No) 14808-60-7 are not applicable to this product)

Quartz (14808-60-7)	
IARC group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.

R-2165 Part A

Safety Data Sheet

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

OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Carbon black (1333-86-4)	
IARC group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Reproductive Toxicity	: Suspected of damaging fertility or 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.
Symptoms/Injuries After Ingestion	Ingestion may cause adverse effects.
Chronic Symptoms	Suspected of damaging fertility or the unborn child.

SECTION 12: Ecological Information

12.1. Toxicity

Ecology - General Harmful to aquatic life with long-lasting effects.

Carbon black (1333-86-4)	
EC50 Daphnia 1	5600 mg/l (Exposure time: 24 h - Species: Daphnia magna)
Octamethylcyclotetrasiloxane (556-67-2)	
LC50 Fish	> 22 µg/l
NOEC Chronic Fish	0.0044 mg/l

12.2. Persistence and Degradability

R-2165 Part A	
Persistence and Degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative Potential

R-2165 Part A	
Bioaccumulative Potential	Not established.
Octamethylcyclotetrasiloxane (556-67-2)	
BCF Fish 1	12400
Partition coefficient n-octanol/water (Log Pow)	6.488 (at 25.1 °C)
Methyl vinylcyclodisiloxane (2554-06-5)	
Partition coefficient n-octanol/water (Log POW)	6.47

12.4. Mobility In Soil

No additional information available

R-2165 Part A

Safety Data Sheet

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

12.5. Other Adverse Effects

Other Information

Avoid release to the environment.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Waste Disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations.

Recommendations

Additional Information

Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - Waste Materials

Avoid release to the environment.

SECTION 14: Transport Information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT Not regulated for transport

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

SECTION 15: Regulatory Information

15.1. US Federal Regulations

All components in this mixture are listed on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, have been exempted, are not listed, not disclosed due to CBI requirements or disclosure rules according to the relevant regulation.

R-2165 Part A

SARA Section 311/312 Hazard
Classes

Health hazard - Reproductive toxicity

15.2. US State Regulations

Carbon black (1333-86-4)

U.S. - California - Proposition 65 - Carcinogens
List

WARNING: This product contains chemicals known to the State of California to cause cancer.

Silica, crystalline (general form) (Not Applicable)

U.S. - California - Proposition 65 - Carcinogens
List

WARNING: This product contains chemicals known to the State of California to cause cancer.

Quartz (14808-60-7)

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 - Mineral Dusts

U.S. - Illinois - Toxic Air Contaminant Carcinogens

U.S. - Illinois - Toxic Air Contaminants

U.S. - Maine - Chemicals of High Concern

RTK - U.S. - Massachusetts - Right To Know List

R-2165 Part A

Safety Data Sheet

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

U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Minnesota - Chemicals of High Concern
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) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
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 - Mineral Dusts
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - Oregon - Permissible Exposure Limits - Mineral Dusts
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups
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

Silica, crystalline (general form) (Not Applicable)

U.S. - Illinois - Toxic Air Contaminant Carcinogens
U.S. - Maine - Chemicals of High Concern
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Minnesota - Chemicals of High Concern
U.S. - New York - Priority Chemical Avoidance List

Carbon black (1333-86-4)

U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
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. - Illinois - Toxic Air Contaminant Carcinogens
U.S. - Illinois - Toxic Air Contaminants
U.S. - Maine - Chemicals of High Concern
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - TWAs
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. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - Oregon - Permissible Exposure Limits - TWAs
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

R-2165 Part A

Safety Data Sheet

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

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
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 40 Feet to Less Than 75 Feet
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 Less Than 25 Feet

Octamethylcyclotetrasiloxane (556-67-2)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Maine - Chemicals of Concern
U.S. - Oregon - Priority Persistent Pollutant - Tier I - Persistent Pollutants
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Chemicals of High Concern - Persistent Bioaccumulative Toxins
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups

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

Date of Preparation or Latest Revision 10/11/2024

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:

Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Flam. Liq. 3	Flammable liquids Category 3
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 2	Reproductive toxicity Category 2
Carc. 1A	Carcinogenicity Category 1A
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapor
H360	May damage fertility or the unborn child
H361	Suspected of damaging fertility or the unborn child
H335	May cause respiratory irritation

R-2165 Part A

Safety Data Sheet

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

H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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

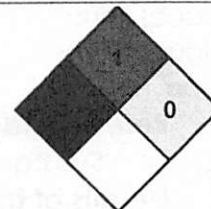
Health

1 Slight Hazard - Irritation or minor reversible injury possible
* 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

R-2165 Part B

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of Revision: 10/11/2024 Date of Issue: 05/12/2014

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NuSil

Version: 4.0

SECTION 1: Identification

1.1. Product Identifier

Product Form	Mixture
Product Name	R-2165 Part B
Synonyms	Silicone Elastomer

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Use of the Substance/Mixture	For professional use only.
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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)
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SECTION 2: Hazards Identification

2.1. Classification of the Substance or Mixture

GHS-US Classification

Repr. 2 H361

Aquatic Chronic 3 H412

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

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



GHS08

Signal Word (GHS-US)

Warning

Hazard Statements (GHS-US)

H361 - Suspected of damaging fertility or the unborn child

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements (GHS-US)

P201 - Obtain special instructions before use.

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

P273 - Avoid release to the environment.

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.

R-2165 Part B

Safety Data Sheet

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

2.3. Other Hazards

Other Hazards Not Contributing to the Classification Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: Composition/Information On Ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	%	GHS-US Classification
Quartz*	(CAS No) 14808-60-7	50-70	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Siloxanes and Silicones, dimethyl, methyl hydrogen	(CAS-No.) 68037-59-2	< 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Octamethylcyclotetrasiloxane	(CAS-No.) 556-67-2	< 0.25	Flam. Liq. 3, H226 Repr. 2, H361 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

*Finely divided Quartz dust has caused cancer and lung disease in workers that inhale it over an extended period of time. Since this product is in a liquid form, the Quartz dust is not able to become airborne and cannot be inhaled. Thus, the hazards usually associated with Quartz dust are not applicable to this product.

SECTION 4: First Aid Measures

4.1. Description of First-aid Measures

First-aid Measures General	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid Measures After Inhalation	When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.
First-aid Measures After Skin Contact	Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.
First-aid Measures After Eye Contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
First-aid Measures After Ingestion	Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries	Suspected of damaging fertility or the unborn child.
Symptoms/Injuries After Inhalation	Prolonged exposure may cause irritation.

R-2165 Part B

Safety Data Sheet

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

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 or the unborn child.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Suitable Extinguishing Media	: Water spray, dry chemical, foam, carbon dioxide.
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.

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

R-2165 Part B

Safety Data Sheet

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

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling And Storage

7.1. Precautions for Safe Handling

Precautions for Safe Handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. 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, spray).

Hygiene Measures

Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures

Comply with applicable regulations.

Storage Conditions

Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible 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).

Quartz (14808-60-7)		
USA ACGIH	ACGIH OEL TWA	0.025 mg/m ³ (respirable particulate matter)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen
USA NIOSH	NIOSH REL TWA	0.05 mg/m ³ (respirable dust)
USA OSHA	OSHA PEL TWA	50 µg/m ³ (Respirable crystalline silica)
USA OSHA	OSHA PEL TWA	(250)/(%SiO ₂ +5) mppcf TWA (respirable fraction) (10)/(%SiO ₂ +2) mg/m ³ TWA (respirable fraction) (For any operations or sectors for which the respirable crystalline silica standard, 1910.1053, is stayed or otherwise not in effect, See 20 CFR 1910.1000 TABLE Z-3)
Octamethylcyclotetrasiloxane (556-67-2)		
USA AIHA	WEEL TWA	10 ppm

8.2. Exposure Controls

Appropriate Engineering Controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

R-2165 Part B

Safety Data Sheet

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

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	Off 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
Solubility	No data available
Partition Coefficient n-Octanol/Water	No data available
Viscosity	No data available

9.2. Other Information

VOC content	< 1 %
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R-2165 Part B

Safety Data Sheet

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

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.

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.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Water, alcohols, acids, bases, strong oxidizing agents, catalytic metals, metallic compounds.

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). Silicon oxides. Will decompose above 150 °C (>300 °F) releasing formaldehyde vapours. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitiser. Formaldehyde can also cause respiratory and eye irritation.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity : Not classified

Quartz (14808-60-7)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
Octamethylcyclotetrasiloxane (556-67-2)	
LD50 Oral Rat	> 4800 mg/kg (No mortality)
LD50 Dermal Rat	> 2375 mg/kg
LD50 Dermal Rabbit	> 2.5 ml/kg (No mortality)
LC50 Inhalation Rat	36 mg/l/4h

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. (This product is in a liquid form; The (CAS No) 14808-60-7 (Quartz) is not bioavailable nor able to become airborne and cannot be inhaled. Thus, the hazards usually associated with (CAS No) 14808-60-7 are not applicable to this product)

Quartz (14808-60-7)	
IARC group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Reproductive Toxicity : Suspected of damaging fertility or the unborn child.

R-2165 Part B

Safety Data Sheet

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

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

SECTION 12: Ecological Information

12.1. Toxicity

Ecology - General Harmful to aquatic life with long lasting effects.

Octamethylcyclotetrasiloxane (556-67-2)	
LC50 Fish	> 22 µg/l
NOEC Chronic Fish	0.0044 mg/l

12.2. Persistence and Degradability

R-2165 Part B	
Persistence and Degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative Potential

R-2165 Part B	
Bioaccumulative Potential	Not established.
Octamethylcyclotetrasiloxane (556-67-2)	
BCF Fish I	12400
Partition coefficient n-octanol/water (Log Pow)	6.488 (at 25.1 °C)

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 Additional Information Ecology - Waste Materials
Dispose of contents/container in accordance with local, regional, national, and international regulations.
Container may remain hazardous when empty. Continue to observe all precautions.
Avoid release to the environment.

R-2165 Part B

Safety Data Sheet

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

SECTION 14: Transport Information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT Not regulated for transport

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

SECTION 15: Regulatory Information

15.1. US Federal Regulations

All components in this mixture are listed on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, have been exempted, or are not disclosed due to CBI requirements or disclosure rules according to the relevant regulation.

R-2165 Part B	
SARA Section 311/312 Hazard Classes	Health hazard - Reproductive toxicity

15.2. US State Regulations

Silica, crystalline (general form) (Not Applicable)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Quartz (14808-60-7)	
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 - Mineral Dusts	
U.S. - Illinois - Toxic Air Contaminant Carcinogens	
U.S. - Illinois - Toxic Air Contaminants	
U.S. - Maine - Chemicals of High Concern	
RTK - U.S. - Massachusetts - Right To Know List	

R-2165 Part B

Safety Data Sheet

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

U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Minnesota - Chemicals of High Concern
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) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
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 - Mineral Dusts
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - Oregon - Permissible Exposure Limits - Mineral Dusts
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups
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

Silica, crystalline (general form) (Not Applicable)

U.S. - Illinois - Toxic Air Contaminant Carcinogens
U.S. - Maine - Chemicals of High Concern
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Minnesota - Chemicals of High Concern
U.S. - New York - Priority Chemical Avoidance List

Octamethylcyclotetrasiloxane (556-67-2)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Maine - Chemicals of Concern
U.S. - Oregon - Priority Persistent Pollutant - Tier I - Persistent Pollutants
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Chemicals of High Concern - Persistent Bioaccumulative Toxins
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups

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

Date of Preparation or Latest Revision 10/11/2024

Revision

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:

Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A

R-2165 Part B

Safety Data Sheet

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

Flam. Liq. 3	Flammable liquids Category 3
Repr. 2	Reproductive toxicity Category 2
Carc. 1A	Carcinogenicity Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
H226	Flammable liquid and vapor
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H372	Causes damage to organs through prolonged or repeated exposure
H361	Suspected of damaging fertility or the unborn child
H350	May cause cancer
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

NFPA Health Hazard

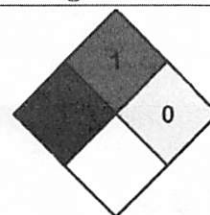
1 - Materials that, under emergency conditions, can cause significant irritation.

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 - Irritation or minor reversible injury possible
* Chronic - Chronic (long-term) health effects may result from repeated overexposure

Flammability
Physical

1 Slight Hazard
0 Minimal Hazard

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