

# MED2-4502

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Revision Date: 03/23/2023 Date of Issue: 08/15/2013



Version 6.0

## SECTION 1: Identification

### 1.1. Product Identifier

Product Form Mixture  
Product Name MED2-4502  
Synonyms Barium Sulfate Masterbatch

### 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](mailto:productstewardship@avantorsciencesgcc.com)  
[www.nusil.com](http://www.nusil.com)

### 1.4. Emergency Telephone Number

Emergency 800-424-9300 CHEMTREC (in US)  
Number +1 703-527-3887 CHEMTREC (International and Maritime)

## SECTION 2: Hazards Identification

### 2.1. Classification of the Substance or Mixture

#### GHS-US Classification

Repr. 2 H361  
Aquatic Chronic 2 H411

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

### 2.2. Label Elements

#### GHS-US Labeling

Hazard Pictograms (GHS-US)



GHS08



GHS09

Signal Word (GHS-US)

Warning

Hazard Statements (GHS-US)

H361 - Suspected of damaging fertility or the unborn child  
H411 - Toxic 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.

# MED2-4502

## Safety Data Sheet

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

P391 - Collect spillage.  
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.

### 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
Barium sulfate	(CAS-No.) 7727-43-7	70 - 80	Not Classified
Octamethylcyclotetrasiloxane	(CAS-No.) 556-67-2	< 1	Flam. Liq. 3, H226 Repr. 2, H361 Aquatic Chronic 1, H410

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. Drench affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.

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 or 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.

# MED2-4502

## Safety Data Sheet

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

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, fog, carbon dioxide (CO<sub>2</sub>), 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 : Barium oxides. Carbon oxides (CO, CO<sub>2</sub>). Formaldehyde. Silicon oxides. Sulfur 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. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

# MED2-4502

## 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** 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** Strong acids, strong bases, strong oxidizers.

### 7.3. Specific End Use(s)

For easy and precise additions of Barium Sulfate to high consistency silicone materials.

## 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).

Barium sulfate (7727-43-7)		
USA ACGIH	ACGIH OEL TWA	5 mg/m <sup>3</sup> (inhalable particulate matter, particulate matter containing no asbestos and <1% crystalline silica)
USA OSHA	OSHA PEL TWA	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)

### 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.

**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.

# MED2-4502

## Safety Data Sheet

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

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 paste
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	No data available
Specific Gravity	2.31
Solubility	Water: insoluble
Partition Coefficient n-Octanol/Water	No data available
Viscosity	No data available

### 9.2. Other Information

VOC Content	< 1 %
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## 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.

# MED2-4502

## Safety Data Sheet

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

### 10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Barium oxides. Carbon oxides (CO, CO<sub>2</sub>). Silicon oxides. Sulfur oxides. Formaldehyde. 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

Barium sulfate (7727-43-7)	
LD50 Oral 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  
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 Toxic to aquatic life with long lasting effects.

Barium sulfate (7727-43-7)	
EC50 - Crustacea	32 mg/l
Octamethylcyclotetrasiloxane (556-67-2)	
LC50 Fish	> 22 µg/l
NOEC Chronic Fish	0.0044 mg/l

# MED2-4502

## Safety Data Sheet

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

### 12.2. Persistence and Degradability

MED2-4502	
Persistence and Degradability	May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative Potential

MED2-4502	
Bioaccumulative Potential	Not established.
Octamethylcyclotetrasiloxane (556-67-2)	
BCF Fish 1	12400
Partition coefficient n-octanol/water (Log Pow)	5.1

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

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Octamethylcyclotetrasiloxane)	
Hazard Class	9	
Identification Number	UN3082	
Label Codes	9	
Packing Group	III	
Marine Pollutant	Marine pollutant	
ERG Number	171	

### 14.2. In Accordance with IMDG

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Octamethylcyclotetrasiloxane)	
Hazard Class	9	
Identification Number	UN3082	
Packing Group	III	
Label Codes	9	
EmS-No. (Fire)	F-A	
EmS-No. (Spillage)	S-F	
Marine Pollutant	Marine pollutant	

# MED2-4502

## Safety Data Sheet

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

### 14.3. In Accordance with IATA

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Octamethylcyclotetrasiloxane)
Packing Group	III
Identification Number	UN3082
Hazard Class	9
Label Codes	9
ERG Code (IATA)	9L



## 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.

MED2-4502

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

### 15.2. US State Regulations

Barium sulfate (7727-43-7)

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. - Washington - Permissible Exposure Limits - TWAs  
U.S. - Washington - Permissible Exposure Limits - STELs  
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

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 03/23/2023



# MED2-4502

## Safety Data Sheet

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

### 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:

Flam. Liq. 3	Flammable liquids Category 3
Repr. 2	Reproductive toxicity Category 2
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
H226	Flammable liquid and vapor
H361	Suspected of damaging fertility or the unborn child
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

### NFPA Health Hazard

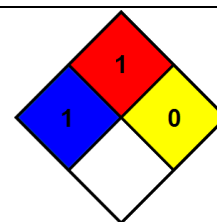
1 - Materials that, under emergency conditions, can cause significant irritation.

### 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.



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