

MAYATERIALS, INC.  
MATERIAL SAFETY DATA SHEET

Section 1 - Product and Company Information

Product Name:

TETRA(TRIETHOXYSILYLETHYLDIMETHYLSILOXY)  
TETRASILSESQUIOXANE

Synthesized by: Mayaterials Inc.

Address: 661 Airport Blvd. Suite 1, Ann Arbor, MI 48108.

Telephone: 734.994.7035

Fax: 734.994.7041

Technical Information: 734.994.7035

Emergency Phone: 734.994.7035

Section 2 - Composition/ Ingredient

Chemical Name:

TETRA(TRIETHOXYSILYLETHYLDIMETHYLSILOXY)  
TETRASILSESQUIOXANE

CAS No. N/A

Formula: C<sub>48</sub>H<sub>128</sub>O<sub>32</sub>Si<sub>20</sub>

Section 3 - Hazards Identification

HMIS RATING

HEALTH: 1

FLAMMABILITY: 1

REACTIVITY: 1

NFPA RATING

HEALTH: 1

FLAMMABILITY: 1

REACTIVITY: 1

For additional information on toxicity refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing becomes difficult, give oxygen.

#### DERMAL EXPOSURE

In case of skin contact, immediately wash skin with soap and copious amounts of water.

#### EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

### Section 5 - Fire Fighting Measures

FLASH POINT: N/A

AUTOIGNITION TEMP: N/A

FLAMMABILITY: N/A

#### EXTINGUISHING MEDIA

Suitable: For small fires use media such as “alcohol” foam, dry chemical or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray. Solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

#### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Combustible liquid. Emits toxic fumes under fire conditions.

### Section 6 - Accidental Release Measures

#### PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

#### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.

#### METHODS FOR CLEANING UP

Cover with dry-lime, sand or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

### Section 7 - Handling and Storage

#### HANDLING

User Exposure: Avoid breathing vapor. Avoid contact with eyes, skin, and clothing.

Avoid prolonged or repeated exposure.

#### STORAGE

Suitable: Keep tightly closed. Store in a cool dry place. Store under nitrogen.

#### SPECIAL REQUIREMENTS

Store under inert gas.

### Section 8 - Exposure Controls / PPE

#### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole main of protection, use a full face supplied air respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

### Section 9 - Physical/Chemical Properties

Appearance Physical State: Liquid

#### PROPERTIES

Molecular Weight 1776 g/mol

pH N/A

BP/BP Range N/A

MP/MP Range N/A

Freezing Point N/A

Vapor Pressure N/A

Vapor Density N/A

Saturated Vapor Conc. N/A

SG/Density: 1.09 g/cm<sup>3</sup> at 25 ° C

Bulk Density N/A

Odor Threshold N/A

Volatile% N/A

VOC Content < 1 wt %  
Water Content < 1 wt %  
Solvent Content < 1wt %  
Evaporation Rate N/A  
Viscosity N/A  
Surface Tension N/A  
Partition Coefficient N/A  
Decomposition Temp. N/A  
Flash point N/A  
Explosion Limits N/A  
Flammability N/A  
Autoignition Temp N/A  
Refractive Index: N/A  
Optical Rotation N/A  
Miscellaneous Data N/A  
Solubility: soluble in THF  
N/A = not available

#### Section 10 - Stability and Reactivity

##### STABILITY

Stable: Stable.

Conditions to avoid: Moisture.

Materials to Avoid: Strong oxidizing agents and strong bases.

##### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide,  
Silicon oxide.

##### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

#### Section 11 - Toxicological Information

##### ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin absorption: May be harmful if absorbed through skin.

Eye Contact: May cause eye irritation.

Inhalation: Material may be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

#### SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### Section 12 - Ecological Information

No data available.

#### Section 13 - Disposal Considerations

##### APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

#### Section 14 - Transport Information

DOT

Proper Shipping Name: Combustible liquid, n.o.s.

UN# NA1993

Class: Combustible liquid

Packing group: Packing group III

Hazard label: None

PIH: Not PIH

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

#### Section 15 - Regulatory Information

##### US CLASSIFICATION AND LABEL TEXT

US Statements: Combustible

##### NITED STATES REGULATORY INFORMATION

SARA LISTED: No

##### CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does no warranty or representation is made as to the correctness or sufficiency of the information and the information is intended only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Mayaterials Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.