

## SAFETY DATA SHEET

Preparation Date: 8/9/2017

Revision Date: 8/9/2017

Revision Number: G1

### 1. IDENTIFICATION

#### Product identifier

**Product code:** E1105  
**Product Name:** ETHYL SILICATE, CONDENSED

#### Other means of identification

**Synonyms:** Ethyl orthosilicate  
 Silane, tetraethoxy-  
 Silicate d'ethyle (French)  
 Silicate tetraethylique (French)  
 Tetraethoxysilane  
 Tetraethyl orthosilicate  
**CAS #:** 78-10-4  
**RTECS #** VV9450000  
**CI#:** Not available

#### Recommended use of the chemical and restrictions on use

**Recommended use:** Ceramics. Glass frosting. In weatherproofing and for hardening, arresting decay and disintegration of mortars and cements, brick, stone, concrete, plaster.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000.

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300

**Contact Person:** Martin LaBenz (West Coast)

**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Flammable liquids	Category 3

#### Label elements

**Product code:** E1105

**Product name:** ETHYL SILICATE,  
CONDENSED

1 / 14

## Danger

### Hazard statements

Harmful if inhaled  
Causes serious eye irritation  
Causes skin irritation  
May damage fertility or the unborn child  
May cause respiratory irritation. May cause drowsiness or dizziness  
Causes damage to organs through prolonged or repeated exposure  
Flammable liquid and vapor



### Hazards not otherwise classified (HNOC)

Not Applicable

### Other hazards

Can burn with an invisible flame

### Precautionary Statements - Prevention

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wash face, hands and any exposed skin thoroughly after handling  
Do not breathe dust/fume/gas/mist/vapors/spray  
Do not eat, drink or smoke when using this product  
Wear protective gloves/protective clothing/eye protection/face protection  
Use only outdoors or in a well-ventilated area  
Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting/.../equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Keep cool

### Precautionary Statements - Response

*Call a POISON CENTER or doctor/physician if you feel unwell*  
In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
IF ON SKIN (or hair)  
Remove/Take off immediately all contaminated clothing  
Rinse skin with water/shower  
Wash contaminated clothing before reuse  
If skin irritation occurs: Get medical advice/attention  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

### Precautionary Statements - Storage

Store locked up  
Store in a well-ventilated place. Keep container tightly closed

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product code: E1105

Product name: ETHYL SILICATE,  
CONDENSED

2 / 14

Components	CAS-No.	Weight %
Ethyl Silicate	78-10-4	>94
Ethyl Polysilicates	11099-06-2	<5.5
Ethyl Alcohol 200 proof	64-17-5	<2.5

#### 4. FIRST AID MEASURES

##### First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.
- Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.
- Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention.
- Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

##### Most important symptoms and effects, both acute and delayed

- Symptoms** Causes serious eye irritation. Moderately irritating to the eyes. Causes skin irritation. Moderately irritating to the skin. Irritating to respiratory system. Dyspnea (Difficulty breathing and shortness of breath). Central nervous system effects. Dizziness. Drowsiness. Ataxia. Tremors. Nausea. Vomiting. Weakness. Unconsciousness. Narcosis. May cause defatting, drying, cracking, inflammation of the skin. It may affect the kidneys. May affect the liver. It may affect the blood.

##### Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

##### Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

#### 5. FIRE-FIGHTING MEASURES

##### Extinguishing Media

- Suitable Extinguishing Media:** Carbon dioxide (CO2). Dry chemical. Alcohol-resistant foam. Water spray.

- Unsuitable Extinguishing Media:** Do not use a solid (straight) water stream as it may scatter and spread fire.

##### Specific hazards arising from the chemical

- Hazardous Combustion Products:** Carbon Monoxide, Carbon Dioxide. Silicon oxides.

- Specific hazards:** Flammable. May be ignited by heat, sparks or flames. Material can burn with invisible flame. Vapor may travel considerable distance to source of ignition and flash back.

Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks). Container explosion may occur under fire conditions or when heated. Fire may produce irritating, corrosive and/or toxic gases.

### **Special Protective Actions for Firefighters**

#### **Specific Methods:**

Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

#### **Special Protective Equipment for Firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions, protective equipment and emergency procedures**

#### **Personal Precautions:**

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

#### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

### **Methods and material for containment and cleaning up**

#### **Methods for containment**

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

#### **Methods for cleaning up**

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

### **Conditions for safe storage, including any incompatibilities**

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store in a segregated and approved area. Store away from incompatible materials.

**Incompatible Materials:**

Strong oxidizing agents  
Water  
Strong acids  
Alkalis

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### National occupational exposure limits

##### United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Ethyl Silicate	78-10-4	100 ppm TWA 850 mg/m <sup>3</sup> TWA	10 ppm TWA 85 mg/m <sup>3</sup> TWA	10 ppm TWA	None
Ethyl Polysilicates	11099-06-2	None	None	None	None
Ethyl Alcohol 200 proof	64-17-5	1000 ppm TWA 1900 mg/m <sup>3</sup> TWA	1000 ppm TWA 1900 mg/m <sup>3</sup> TWA	1000 ppm STEL	None

##### Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Ethyl Silicate	78-10-4	10 ppm TWA 85 mg/m <sup>3</sup> TWA	10 ppm TWA	10 ppm TWA	10 ppm TWAEV 85 mg/m <sup>3</sup> TWAEV
Ethyl Polysilicates	11099-06-2	None	None	None	None
Ethyl Alcohol 200 proof	64-17-5	1000 ppm TWA 1880 mg/m <sup>3</sup> TWA	1000 ppm STEL	1000 ppm STEL	1000 ppm TWAEV 1880 mg/m <sup>3</sup> TWAEV

##### Australia and Mexico

Components	CAS-No.	Australia	Mexico
Ethyl Silicate	78-10-4	10 ppm TWA 85 mg/m <sup>3</sup> TWA	10 ppm TWA 85 mg/m <sup>3</sup> TWA 30 ppm STEL 255 mg/m <sup>3</sup> STEL
Ethyl Polysilicates	11099-06-2	None	None
Ethyl Alcohol 200 proof	64-17-5	1000 ppm TWA 1880 mg/m <sup>3</sup> TWA	1000 ppm TWA 1900 mg/m <sup>3</sup> TWA

### Appropriate engineering controls

#### Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

**Eye protection:** Goggles Safety glasses with side-shields

**Skin and body protection:** Chemical resistant apron  
Long sleeved clothing

Gloves

**Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Liquid	<b>Appearance:</b> No information available.	<b>Color:</b> Colorless.
<b>Odor:</b> Sharp. Ester-like.	<b>Taste</b> No information available.	<b>Formula:</b> No information available
<b>Molecular/Formula weight:</b> No information available	<b>Flammability:</b> Flammable	<b>Flashpoint (°C/°F):</b> 37-46 °C/99-115 °F
<b>Flash Point Tested according to:</b> Closed cup	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> 1.3%
<b>Upper Explosion Limit (%):</b> 23%	<b>Melting point/range(°C/°F):</b> -84 to -82.5 °C/-119 to -116.5 °F	<b>Decomposition temperature(°C/°F):</b> No information available
<b>Boiling point/range(°C/°F):</b> 154-194 °C/309.2-381.2 °F	<b>Bulk density:</b> No information available	<b>Density (g/cm3):</b> No information available
<b>Specific gravity:</b> 0.93-0.94	<b>pH:</b> No information available	<b>Vapor pressure @ 20°C (kPa):</b> 0.133
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> 7.22	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> log Kow - 0.04	<b>Viscosity:</b> No information available
<b>Miscibility:</b> Miscible with alcohol	<b>Solubility:</b> Soluble in Ether Slightly soluble in Benzene Decomposes in water	

## 10. STABILITY AND REACTIVITY

**Reactivity**  
No information available

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Ignition sources. Incompatible materials.

**Incompatible Materials:**  
Strong oxidizing agents  
Water  
Strong acids  
Alkalis

**Hazardous decomposition products:**

Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.

**Other Information**

**Corrosivity:**

No information available

**Special Remarks on Corrosivity:** No information available

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Principal Routes of Exposure:**

Ingestion. Skin. Eyes. Inhalation.

**Acute Toxicity**

**Component Information**

Ethyl Silicate	
CAS-No.	78-10-4
LD50/oral/rat = 6270 mg/kg Oral LD50 Rat	
LD50/oral/mouse = No information available	
LD50/dermal/rabbit = 6300 µL/kg Dermal LD50	
LD50/dermal/rat = No information available	
LC50/inhalation/rat = No information available	
LC50/inhalation/mouse = No information available	
Other LD50 or LC50information = No information available	
Ethyl Polysilicates	
CAS-No.	11099-06-2
LD50/oral/rat = No information available	
LD50/oral/mouse = No information available	
LD50/dermal/rabbit = No information available	
LD50/dermal/rat = No information available	
LC50/inhalation/rat = No information available	
LC50/inhalation/mouse = No information available	
Other LD50 or LC50information = No information available	
Ethyl Alcohol 200 proof	
CAS-No.	64-17-5
LD50/oral/rat = 7060 mg/kg Oral LD50 Rat	
LD50/oral/mouse = 3450 mg/kg Oral LD50 Mouse	
LD50/dermal/rabbit = No information available	
LD50/dermal/rat = No information available	
LC50/inhalation/rat = 124.7 mg/L Inhalation LC50 Rat 4 h	
LC50/inhalation/mouse = 39000 mg/m <sup>3</sup> 4 h	
Other LD50 or LC50information = >60000 ppm Inhalation LC50 Mouse 1 h	
5900 mg/m <sup>3</sup> Inhalation LC50 Rat 6 h	
20000 ppm Inhalation LC50 Rat 10 h	
5560 mg/kg Oral LD50 Guinea Pig	
6300 mg/kg Oral LD50 Rabbit	

**Product Information**

LD50/oral/rat =

VALUE- Acute Tox Oral = No information available

**Product code:** E1105

**Product name:** ETHYL SILICATE,  
CONDENSED

**7 / 14**

**LD50/oral/mouse =**  
**Value - Acute Tox Oral =** No information available

**LD50/dermal/rabbit**  
**VALUE-Acute Tox Dermal =** No information available

**LD50/dermal/rat**  
**VALUE -Acute Tox Dermal =** No information available

**LC50/inhalation/rat**  
**VALUE-Vapor =** No information available  
**VALUE-Gas =** No information available  
**VALUE-Dust/Mist =** No information available

**LC50/Inhalation/mouse**  
**VALUE-Vapor =** No information available  
**VALUE - Gas =** No information available  
**VALUE - Dust/Mist =** No information available

### Symptoms

**Skin Contact:** Causes skin irritation. Moderately irritating to the skin. It can be absorbed through the skin.

**Eye Contact:** Causes serious eye irritation. Causes moderate to severe eye irritation.

**Inhalation** Irritating to respiratory system. May cause lacrimation. Can cause dyspnea (shortness of breath and difficulty breathing). May cause respiratory difficulty and unconsciousness. It may cause pulmonary edema. Inhalation of vapors may cause drowsiness and dizziness. May affect blood (changes in white blood cell count). May affect blood (changes in red blood cell count). It may affect behavior/central nervous system (ataxia). It may affect behavior/central nervous system (tremors). May cause nausea, vomiting. May cause abdominal pain. May cause salivation. It may affect the liver. May affect the kidneys.

**Ingestion** Ingestion may cause nausea, vomiting. May cause abdominal pain. May affect urinary system (kidneys).

**Aspiration hazard** No information available.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Chronic Toxicity** Prolonged skin contact may cause drying and cracking of the skin. Prolonged or repeated inhalation may cause central nervous system effects. Chronic exposure may affect the liver and kidneys. Central nervous effects may include tremors, dizziness, weakness, unsteadiness, unconsciousness/narcosis. Prolonged or repeated inhalation may affect the blood (changes in white blood cell count). Prolonged or repeated inhalation may affect the blood (changes in red blood cell count). Prolonged or repeated inhalation can affect the lungs and cause respiratory difficulties.

**Sensitization:** No information available.

**Mutagenic Effects:** May affect genetic material  
Experiments with bacteria and/or yeast have shown mutagenic effects

**Carcinogenic effects:** Equivocal tumorigenic agent by Registry of Toxic Effects of Chemical



Substances (RTECS) criteria. Confirmed Animal Carcinogen with Unknown Relevance to Humans.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Ethyl Silicate	78-10-4	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Ethyl Polysilicates	11099-06-2	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Ethyl Alcohol 200 proof	64-17-5	Group 1 - Monograph 100E [2012] in alcoholic beverages Monograph 96 [2010] in alcoholic beverages	A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans	Not listed	Present	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

(In alcoholic beverages)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

#### **Reproductive toxicity**

May damage fertility or the unborn child

#### **Reproductive Effects: Developmental Effects:**

May cause adverse reproductive effects

May cause harm to the unborn child

May cause adverse developmental effects

#### **Teratogenic Effects:**

No information available

#### **Specific Target Organ Toxicity**

#### **STOT - single exposure**

Respiratory system. central nervous system.

#### **STOT - repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

#### **Target Organs:**

Skin. Liver. Kidneys. Central nervous system.

## **12. ECOLOGICAL INFORMATION**

#### **Ecotoxicity**

#### **Ecotoxicity effects:**

Aquatic environment.

*Ethyl Alcohol 200 proof - 64-17-5*

#### **Freshwater Fish Species Data:**

12.0 - 16.0 mL/L LC50 Oncorhynchus mykiss 96 h static 1 100 mg/L LC50 Pimephales promelas 96 h static 1 13400 - 15100 mg/L LC50 Pimephales promelas 96 h flow-through 1

#### **Water Flea Data:**

9268 - 14221 mg/L LC50 Daphnia magna 48 h 2 mg/L EC50 Daphnia magna 48 h

#### **Persistence and degradability:**

No information available

#### **Bioaccumulative potential:**

No information available.

#### **Mobility:**

No information available.

## **13. DISPOSAL CONSIDERATIONS**

## Disposal Methods

### **Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

### **Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ethyl Silicate	78-10-4	None	None	None	None
Ethyl Polysilicates	11099-06-2	None	None	None	None
Ethyl Alcohol 200 proof	64-17-5	None	None	None	None

## **14. TRANSPORT INFORMATION**

### **DOT**

**UN-No:** UN1292  
**Proper Shipping Name:** Tetraethyl silicate  
**Hazard Class:** 3  
**Subsidiary Class** No information available  
**Packing group:** III  
**Emergency Response Guide Number** 129  
**Marine Pollutant** No data available  
**DOT RQ (lbs):** No information available  
**Special Provisions** B1, IB3, T2, TP1  
**Symbol(s):** No information available  
**Description:** UN1292, Tetraethyl silicate, 3, III

### **TDG (Canada)**

**UN-No:** UN1292  
**Proper Shipping Name:** Tetraethyl silicate  
**Hazard Class:** 3  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant** No Information available  
**Description:** UN1292, Tetraethyl silicate, 3, III

### **ADR**

**UN-No:** UN1292  
**Proper Shipping Name:** Tetraethyl silicate  
**Hazard Class:** 3  
**Packing Group:** III  
**Subsidiary Risk:** No information available  
**Description:** UN1292, Tetraethyl silicate, 3, III

### **IMO / IMDG**

**UN-No:** UN1292  
**Proper Shipping Name:** Tetraethyl silicate  
**Hazard Class:** 3  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant** No information available  
**EMS:** F-E  
**Description** UN1292, Tetraethyl silicate, 3, III

### **RID**

**UN-No:** UN1292

**Product code:** E1105

**Product name:** ETHYL SILICATE,  
CONDENSED

**10 / 14**

**Proper Shipping Name:** Tetraethyl silicate  
**Hazard Class:** 3  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** UN1292, Tetraethyl silicate, 3, III

#### ICAO

**UN-No:** UN1292  
**Proper Shipping Name:** Tetraethyl silicate  
**Hazard Class:** 3  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** UN1292, Tetraethyl silicate, 3, III

#### IATA

**UN-No:** UN1292  
**Proper Shipping Name:** Tetraethyl silicate  
**Hazard Class:** 3  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**ERG Code:** 3L  
**Special Provisions** No information available  
**Description:** UN1292, Tetraethyl silicate, 3, III

### 15. REGULATORY INFORMATION

#### International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Ethyl Silicate</i>	78-10-4	Present	Present KE-33411	Present	Not present	Present	Present	Present 201-083-8
<i>Ethyl Polysilicates</i>	11099-06-2	Not Listed	Not present	Not present	Not present	Not present	Not present	Not present
<i>Ethyl Alcohol 200 proof</i>	64-17-5	Present	KE-13217	Present	(2)-202	Present	Present	Present 200-578-6

#### U.S. Regulations

##### *Ethyl Silicate*

**Massachusetts RTK:** Present  
**New Jersey RTK Hazardous Substance List:** 0909  
**Pennsylvania RTK:** Present  
**Minnesota - Hazardous Substance List:** Present  
**California Directors List of Hazardous Substances:** Present

##### *Ethyl Alcohol 200 proof*

**Massachusetts RTK:** Present  
**New Jersey RTK Hazardous Substance List:** 0844  
**Pennsylvania RTK:** Present  
**Minnesota - Hazardous Substance List:** Present  
**Louisiana Reportable Quantity List for Pollutants:** Present (listed as Volatile Organic Compounds)  
**California Directors List of Hazardous Substances:** Present

**FDA - Food Additives Generally Recognized as Safe (GRAS):** 21 CFR 184.1293

**FDA - 21 CFR - Total Food Additives** 169.175, 169.176, 169.177, 169.181, 172.340, 172.560, 172.580, 175.105, 176.180, 176.200, 177.1200, 177.1650, 178.1010, 184.1293, 73.30, 73.345, 73.615

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

#### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### Chemicals Known to the State of California to Cause Reproductive Toxicity:

**Product code:** E1105

**Product name:** ETHYL SILICATE,  
CONDENSED

**11 / 14**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Ethyl Silicate	78-10-4	Not Listed	Not Listed	Not Listed	Not Listed
Ethyl Polysilicates	11099-06-2	Not Listed	Not Listed	Not Listed	Not Listed
Ethyl Alcohol 200 proof	64-17-5	carcinogen(for alcoholic beverages when associated with alcohol abuse)	developmental toxicity (Ethyl alcohol in alcoholic beverages)	Not Listed	Not Listed

#### CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
<i>Ethyl Silicate</i>	78-10-4	None	None	None	None	None
<i>Ethyl Polysilicates</i>	11099-06-2	None	None	None	None	None
<i>Ethyl Alcohol 200 proof</i>	64-17-5	None	None	None	None	None

#### U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Ethyl Silicate	78-10-4	Not Applicable	Not Applicable
Ethyl Polysilicates	11099-06-2	Not Applicable	Not Applicable
Ethyl Alcohol 200 proof	64-17-5	Not Applicable	Not Applicable

#### Canada

##### WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component  
Ethyl Silicate  
78-10-4 ( >94 )

Ethyl Alcohol 200 proof  
64-17-5 ( <2.5 )

WHMIS 2015 Hazard Classification  
Flammable liquids - Category 3: H226 Flammable liquid and vapour.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation.  
Flammable liquids - Category 2: H225 Highly flammable liquid and vapour.; Serious Eye Damage/Eye Irritation - Category 2B: H320 Causes eye irritation.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

##### WHMIS 1988 Hazard Class

B2 Flammable liquid  
B6 Reactive flammable material  
D2B Toxic materials

##### Components

Ethyl Alcohol 200 proof

WHMIS 1988  
B2,D2B

##### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Ethyl Silicate	1 %
Ethyl Alcohol 200 proof	0.1 %

## Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Ethyl Silicate	78-10-4	Present	Not Listed
Ethyl Polysilicates	11099-06-2	Not Listed	Not Listed
Ethyl Alcohol 200 proof	64-17-5	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Ethyl Silicate	78-10-4	Not listed
Ethyl Polysilicates	11099-06-2	Not listed
Ethyl Alcohol 200 proof	64-17-5	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Ethyl Silicate	78-10-4	Not listed
Ethyl Polysilicates	11099-06-2	Not listed
Ethyl Alcohol 200 proof	64-17-5	Not listed

## EU Classification

### EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Ethyl Silicate	78-10-4	Flammable liquids - Flam. Liq. 3: H226 Flammable liquid and vapour.; Acute toxicity - Inhalation - Acute Tox. 4: H332 Harmful if inhaled. (Minimum classification); Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation.; Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation.014-005-00-0
Ethyl Polysilicates	11099-06-2	
Ethyl Alcohol 200 proof	64-17-5	Flammable liquids - Flam. Liq. 2: H225 Highly flammable liquid and vapour.603-002-00-5

### EU - CLP (1272/2008)

### R-phrases(s)

R10 - Flammable.

R20 - Harmful by inhalation.

R36/37 - Irritating to eyes and respiratory system.

### S -phrase(s)

S 2 - Keep out of the reach of children.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Ethyl Silicate	78-10-4	R10 Xn; R20 Xi; R36/37	No information	S2
Ethyl Polysilicates	11099-06-2		No information	
Ethyl Alcohol 200 proof	64-17-5	F; R11	No information	S7 S16

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

Flammable

Xn - Harmful.

Xi - Irritant.

**Xn****Xi****F****16. OTHER INFORMATION**

**Preparation Date:** 8/9/2017  
**Revision Date:** 8/9/2017  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**