

# Safety Data Sheet

Issue Date: 25-Feb-2016

Revision Date: 16-July-2020

Version 2

## 1. IDENTIFICATION

### Product Identifier

**Product Name** T-46 PROX-SVERS

### Other means of identification

**SDS #** TCR-007

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

**Recommended Use** Ceramics, Castable Refractories.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Christy Catalytics, L.L.C.  
4641 McRee Avenue  
St. Louis, MO 63110  
Ph: (636) 585-2214

### Emergency Telephone Number

**Emergency Telephone (24 hr)** INFOTRAC 1-800-535-5053 (North America)  
1-352-323-3500 (International)

## 2. HAZARDS IDENTIFICATION

**Appearance** Buff tan or white solid spheres

**Physical state** Solid

**Odor** Odorless

### Classification

Carcinogenicity

Category 2

### Signal Word

Warning

### Hazard statements

Suspected of causing cancer



### Precautionary Statements - Prevention

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required

### Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Please also refer to subsequent sections of this SDS for additional information regarding the components of this product.

Chemical Name	CAS No.	Weight-%
Aluminum Oxide	1344-28-1	90-100
Titanium(IV) Oxide	13463-67-7	0.1-0.5
Silica, cristobalite	14464-46-1	0.1-0.5
Calcium Oxide	1305-78-8	0-8

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

**4. FIRST AID MEASURES****First Aid Measures**

<b>General Advice</b>	Provide this SDS to medical personnel for treatment.
<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
<b>Skin Contact</b>	Flush with water or soap and water for 15 minutes or until all traces have been removed. Seek medical attention if symptoms develop and persist. Launder contaminated clothing before reuse.
<b>Inhalation</b>	Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician / poison center if individual's condition declines or if symptoms persist.
<b>Ingestion</b>	Rinse mouth. If conscious give 2 glasses of water to dilute. Get medical attention.

**Most important symptoms and effects**

<b>Symptoms</b>	Coughing. Shortness of breath.
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**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Pre-existing lung conditions such as, but not limited to bronchitis, emphysema and asthma.
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**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**Dry powder, Carbon dioxide (CO<sub>2</sub>), water fog or foam.**Unsuitable Extinguishing Media** Not determined.**Specific Hazards Arising from the Chemical**

Product is not flammable or combustible.

### **Protective equipment and precautions 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** Use personal protection recommended in Section 8.

### **Environmental precautions**

**Environmental precautions** Clean up leaks/spills immediately to prevent soil or water contamination. See Section 12 for additional Ecological Information.

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

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Avoid the generation of dusts during clean-up. Use vacuum (equipped with a HEPA filter) or wet cleanup methods to remove dusts. For waste disposal, see section 13 of the SDS.

## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

**Advice on Safe Handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.

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

**Storage Conditions** Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up.

**Incompatible Materials** Strong oxidizing agents. Strong acids. Hydrogen fluoride.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Exposure Guidelines**

<b>Chemical Name</b>	<b>ACGIH TLV</b>	<b>OSHA PEL</b>	<b>NIOSH IDLH</b>
Aluminum Oxide 1344-28-1	TWA: 1 mg/m <sup>3</sup> respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	-
Titanium(IV) Oxide 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 10 mg/m <sup>3</sup> total dust	IDLH: 5000 mg/m <sup>3</sup>
Silica, cristobalite 14464-46-1	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> TWA: 50 µg/m <sup>3</sup> excludes construction work, agricultural operations, and exposures that result from the processing of sorptive clays (vacated) TWA: 0.05 mg/m <sup>3</sup> respirable dust	IDLH: 25 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust

		: (1/2)(30)/(%SiO2 + 2) mg/m <sup>3</sup> TWA total dust : (1/2)(250)/(%SiO2 + 5) mppcf TWA respirable fraction : (1/2)(10)/(%SiO2 + 2) mg/m <sup>3</sup> TWA respirable fraction	
Iron(III) oxide 1309-37-1	TWA: 5 mg/m <sup>3</sup> respirable particulate matter	TWA: 10 mg/m <sup>3</sup> fume TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> fume and total dust Iron oxide (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction regulated under Rouge	IDLH: 2500 mg/m <sup>3</sup> Fe dust and fume TWA: 5 mg/m <sup>3</sup> Fe dust and fume
Calcium Oxide	TWA: 2 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Maintain eye wash fountain and quick-drench facilities in work area. Provide local exhaust ventilation to meet exposure limits.

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

**Eye/Face Protection** Safety glasses as a minimum for protection. Use chemical safety goggles and/or full-face shield where dusting is possible. Refer to 29 CFR 1910.133 for eye and face protection regulations.

**Skin and Body Protection** Long sleeved shirt and long pants. Normal work clothing. Wear gloves when handling. Safety shoes with metatarsal protection recommended. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

**Respiratory Protection** If necessary, wear a MSHA/NIOSH-approved respirator. Refer to 29 CFR 1910.134 for respiratory protection requirements.

**General Hygiene Considerations** Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	Solid	<b>Odor</b>	Odorless
<b>Appearance</b>	Buff tan or white solid spheres	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Buff, tan or white		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not applicable	
Melting Point/Freezing Point	Not applicable	
Boiling Point/Boiling Range	Not applicable	
Flash Point	Not applicable	
Evaporation Rate	Not applicable	
Flammability (Solid, Gas)	Not determined	
Flammability Limits in Air		
Upper Flammability Limits	Not applicable	

<b>Lower Flammability Limit</b>	Not applicable
<b>Vapor Pressure</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Relative Density</b>	Not determined
<b>Water Solubility</b>	Insoluble in water
<b>Solubility in other solvents</b>	Not determined
<b>Partition Coefficient</b>	Not applicable
<b>Auto-ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not applicable
<b>Kinematic Viscosity</b>	Not applicable
<b>Dynamic Viscosity</b>	Not applicable
<b>Explosive Properties</b>	Not determined
<b>Oxidizing Properties</b>	Not determined

**Other Information**

**Density** 76-120 lbs/cu. ft

## 10. STABILITY AND REACTIVITY

**Reactivity**

Not reactive under normal conditions.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

Reacts with strong acids and hydrogen fluoride.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid**

Keep out of reach of children.

**Incompatible Materials**

Strong oxidizing agents. Strong acids. Hydrogen fluoride.

**Hazardous Decomposition Products**

During the initial heating trace amounts of the decomposition products may be emitted. In an oxidizing atmosphere these chemicals readily oxidize to carbon dioxide and water.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

<b>Eye Contact</b>	Dust contact with the eyes can lead to mechanical irritation.
<b>Skin Contact</b>	May cause temporary irritation on skin contact.
<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Ingestion</b>	May cause discomfort if swallowed.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum Oxide	> 5000 mg/kg ( Rat )	-	-

1344-28-1			
Titanium(IV) Oxide 13463-67-7	> 10000 mg/kg ( Rat )	-	-
Iron(III) oxide 1309-37-1	> 10000 mg/kg ( Rat )	-	-
Calcium Oxide 1305-78-8	>2000 mg/kg (female Rat)		

### Information on physical, chemical and toxicological effects

**Symptoms** Please see section 4 of this SDS for symptoms.

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

**Carcinogenicity** Suspected of causing cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium(IV) Oxide 13463-67-7		Group 2B		X
Iron(III) oxide 1309-37-1		Group 3		

#### Legend

**IARC (International Agency for Research on Cancer)**

Group 2B - Possibly Carcinogenic to Humans

Group 3 IARC components are "not classifiable as human carcinogens"

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

X - Present

#### Chronic toxicity

Silicosis is a progressive fibrotic pneumoconiosis which greatly decreases the ability of the lungs to provide oxygen (decreased pulmonary capacity). The extent and severity of lung injury depends on a variety of factors including particle size, percentage of silica, natural resistance, dust concentration and length of exposure. The damaged lungs will become increasingly less able to provide the body with oxygen causing tiredness, shortness of breath, decreased capacity to work, and can result in death by cardiac failure or by the destruction of lung tissue. Persons who develop silicosis have greatly increased risks of developing tuberculosis and workers who are exposed to crystalline silica and smoke have increased risks of lung damage. Silicosis may progress in the absence of continued exposure.

Similar aluminum silicate minerals such as kaolin have been found to cause lung fibrosis in the absence of crystalline silica. The disease is not as severe as silicosis but can cause respiratory symptoms and changes. Crystalline silica exposure appears to enhance the severity of the disease.

Animal studies indicate that cristobalite has a greater potential to produce fibrosis than quartz. Cristobalite produces a more severe response than quartz and fibrosis elicited is diffuse rather than nodular. If inhaled over a long period of time may cause liver and/or kidney damage.

#### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 5,107.00 mg/kg

## 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Not determined

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods****Disposal of Wastes**

Unused material - Solid waste landfill. Used material - test to determine hazard status and dispose of in accordance to applicable local, provincial or federal rules and regulations.  
Packaging materials - incinerate or dispose of in a solid waste landfill. Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**14. TRANSPORT INFORMATION****Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

Not regulated

**IATA**

Not regulated

**IMDG**

Not regulated

**15. REGULATORY INFORMATION****International Inventories**

Chemical Name	TSCA	DSL/NDSL	EINECS/E LINCS	ENCS	IECSC	KECL	PICCS	AICS
Aluminum Oxide	X	X	X	Present	X	Present	X	X
Titanium(IV) Oxide	X	X	X	Present	X	Present	X	X
Sodium Oxide	X	X	X	Present	X	Present	X	X
Silica, cristobalite	X	X	X	Present	X	Present	X	X
Iron(III) oxide	X	X	X	Present	X	Present	X	X
Calcium Oxide	Complies	Complies	Complies	Complies	Complies	Complies	Complies	Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations****CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Aluminum Oxide - 1344-28-1	1344-28-1	90-100	1.0

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Titanium(IV) Oxide - 13463-67-7	Carcinogen
Silica, cristobalite - 14464-46-1	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Aluminum Oxide 1344-28-1	X	X	X
Titanium(IV) Oxide 13463-67-7	X	X	X
Silica, cristobalite 14464-46-1	X	X	X
Iron(III) oxide 1309-37-1	X	X	X
Calcium Oxide 1305-78-8	X	X	X



**16. OTHER INFORMATION****NFPA****Health Hazards**

Not determined

**Flammability**

Not determined

**Instability**

Not determined

**Special Hazards**

Not determined

**HMIS****Health Hazards**

Not determined

**Flammability**

Not determined

**Physical hazards**

Not determined

**Personal Protection**

Not determined

**Issue Date:** 25-Feb-2016**Revision Date:** 16-July-2020**Revision Note:** New format**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**