

MATERIAL SAFETY DATA SHEET



FIVE STAR PRODUCTS, INC.

425 Stillson Road
Fairfield, CT 06824
203-336-7900

EMERGENCY TELEPHONE NO. 1-(800) 255-3924

Issue Date: 5/30/03 Supersedes: 11/12/02

FOR CHEMICAL
EMERGENCY
Call Chem-Tel
1-800-255-3924
24 hrs./7days per week

SECTION I - Product Identification: FIVE STAR® RAPID EPOXY GROUT RESIN/COMPONENT A

SECTION II - Hazardous Ingredients/Identify Information

Components: **C.A.S. No.:** **OSHA PEL:** **ACGIH TLV:** **Other Limits:**

Diglycidyl Ether of

Bisphenol-F 54208-63-8 N/A N/A N/A

Aliphatic Diepoxide 17557-23-2 N/A N/A N/A

SARA Sections 13 Listed Ingredients: Not a hazardous waste under RCRA (40 CFR 261) DOT Shipping - Not Regulated. UN #: None.

DOT Hazard Class: None.

HMIS: Health = 2 Fire = 1 Reactivity = 0 Personal Protection = E

SECTION III - Physical/Chemical Characteristics

Boiling Point (°F): N/A **Specific Gravity** (H₂O = 1): 1.18
Vapor Pressure (mm Hg.): N/A **Melting Point** (°F): Liquid
Vapor Density (AIR = 1): N/A **Evaporation Rate:** Non-Volatile
(Butyl Acetate = 1)
Solubility in Water: 0 **Appearance and Odor:** Viscous liquid, sweet, mild odor.

SECTION IV - Fire and Explosion Hazard Data

Flash Point: 200 Deg. F. **Flammable Limits:** Class 3B, **LEL:** N/A, **UEL:** N/A. **Extinguishing Media:** Foam, carbon dioxide, dry chemical or fog.
Special Fire Fighting Procedures: Fire fighters should wear goggles and self-contained breathing apparatus to avoid inhalation of smoke or vapors.
Unusual Fire and Explosion Hazards: None Known. **Flammability Class:** 3B.

SECTION V - Reactivity Data

Stability: Unstable: () **Stable:** (X)

Conditions to Avoid: Heat and warm storage. **Incompatibility (Materials to Avoid):** Strong oxidizers, acids, bases and epoxy hardeners under uncontrolled conditions. **Hazardous Decomposition or Byproducts:** Carbon monoxide, carbon dioxide, smoke.

Hazardous Polymerization: May occur: () Will not occur: (X)

SECTION VI - Health Hazard Data

Routes of Entry: **Inhalation:** Yes. **Skin:** Yes. **Ingestion:** Yes. **Health Hazards (Acute and Chronic):** Oral LD50 (RAT) > 5,000 MG/KG, Dermal LD50 (RABBIT) 6,000 MG/KG, **Skin Irritation** (RABBIT) > Moderate Irritation, **Eye Irritation** (RABBIT) Moderate Irritation, **Sensitization** May cause sensitization, **Overexposure Effects:** Irritation, sensitization and dermatitis. **Carcinogenicity:** NTP? No, **IARC Monographs?** No, **OSHA Regulated?** No. **SIGNS AND SYMPTOMS OF EXPOSURE:** **Inhalation:** May cause nasal irritation, damage to the central nervous system, depression or lung injury. **Eye Contact:** Mild to moderate irritation, possible minor temporary corneal injury. **Skin Contact:** Mild irritation. May be a skin sensitizer. **Skin Absorption:** Not likely to be absorbed in toxic amounts. **MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Sensitization, lung problems. **Emergency and First Aid Procedures:** **Eyes:** Immediately flush eyes with water for at least 15 minutes. **Call a physician.** **Skin:** Promptly wash with mild soap and water. **Ingestion:** If conscious, give large quantities of water. Induce vomiting. **Call a physician.** **Inhalation:** Remove to fresh air. Give oxygen if breathing is difficult. **Call a physician.** **Other:** Promptly remove wet, contaminated clothing. Wash before reuse.

SECTION VII - Precautions for Safe Handling and Use

Steps To Be Taken in Case Material is Released or Spilled: Ventilate area. Absorb spill with suitable absorbent material and place into a closed container. For large spills, dike area and pump into closed container. Prevent this material from entering waterways. Wear protective equipment during cleanup. **Waste Disposal Method:** At this time, this material or its containers are not considered hazardous wastes as defined under the Federal RCRA Regulations (40 CFR 261) if discarded. Care should be taken to ensure that the material or its containers are disposed of in an approved facility in accordance with current Federal, state and local regulation. For further information, contact your state or local waste agency, the United States Environmental Protection Agency's RCRA hotline: (1-800 424-9346) or (202-382-3000) **Precautions To Be Taken in Handling and Storing:** Wear protective clothing, eye protection and gloves. **Other Precautions:** N/A

SECTION VIII - Control Measures

Respiratory Protection: Should be worn to avoid breathing spray mist and heated vapors. (MSA organic) **Ventilation:** **Local Exhaust:** Local exhaust and general ventilation recommended. **Mechanical (General):** As needed. **Special:** N/A. **Other:** N/A. **Protective Gloves:** Chemical-resistant plastic or rubber. **Eye Protection:** Chemical goggles or full face mask. **Other Protective Clothing or Equipment:** Wear protective equipment. **Work/Hygienic Practices:** Avoid skin contact. Practice good hygiene. Do not let contaminated clothing contact skin.

"This information is furnished without warranty of any kind, expressed or implied. Five Star Products, Inc. bases the information and recommendations in this document on data believed to be current and accurate."

MATERIAL SAFETY DATA SHEET



FIVE STAR PRODUCTS, INC.
425 Stillson Road
Fairfield, CT 06824
203-336-7900

EMERGENCY TELEPHONE NO. 1-(800) 255-3924

Issue Date: 5/30/03 Supersedes: 2/05/03

FOR CHEMICAL
EMERGENCY
Call Chem-Tel
1-800-255-3924
24 hrs./7days per week

SECTION I - Product Identification: FIVE STAR® RAPID EPOXY GROUT HARDENER/COMPONENT B

SECTION II - Hazardous Ingredients/Identify Information

<u>Components:</u>	<u>C.A.S. No.:</u>	<u>OSHA PEL:</u>	<u>ACGIH TLV:</u>	<u>Other Limits:</u>
Triethylenetetramine LD50-2500 mg/kg (Oral, Rat)	112-24-3	Not Established	Not Established	
Tris-2,4,6-(Dimethylaminomethyl) Phenol LD50-1670 mg/kg (Oral, Rat)	90-72-2	Not Established	Not Established	

HMS: Health Rating = 3 Flammability = 1 Reactivity = 0 Personal Protection = E

SECTION III: - Physical/Chemical Characteristics

<u>Boiling Point</u> (°F):	Not Established	<u>Specific Gravity</u> (H ₂ O = 1):	~0.98
<u>Vapor Pressure</u> (mm Hg.):	Not Established	<u>Melting Point</u> (°F):	Liquid
<u>Vapor Density</u> : (AIR = 1):	Not Established	<u>Evaporation Rate</u> : (Butyl Acetate = 1)	N/A
<u>Solubility in Water</u> :	Not Established	<u>Appearance and Odor</u> :	Fishy, ammoniacal odor.

SECTION IV - Fire and Explosion Hazard Data

Flash Point: 400°F. (204°C) Pensky-Martens closed cup. Flammable Limits: LEL: N/A, UEL: N/A. Extinguishing Media: Water, fog, alcohol foam, CO₂, dry chemical. Special Fire-Fighting Procedures: Use full protective clothing, self-contained breathing apparatus to avoid inhalation of smoke and vapors. Unusual Fire and Explosion Hazards: Decomposition and combustion products may contain carbon monoxide and nitrogen oxide gases.

SECTION V - Reactivity Data

Stability: Unstable: () Stable: (X)

Conditions to Avoid: Can autoignite in air at 676°F. Incompatibility (Materials to Avoid): Epoxy resins under uncontrolled conditions, acid, oxidizing material, halogenated organic compounds.

Hazardous Decomposition or Byproducts: Carbon monoxide and nitrogen oxides.

Hazardous Polymerization: May occur: () Will not occur: (X)

Conditions to Avoid: Epoxy resins under uncontrolled conditions. Avoid peroxides and acids.

SECTION VI - Health Hazard Data

Routes of Entry: Inhalation: Yes. Skin: Yes. Ingestion: Yes. Health Hazards (Acute and Chronic): Eye irritant. Skin irritant. Respiratory tract irritant. Corrosive liquid. Toxic (ANSI Z129.1, 1988) by ingestion and skin absorption. Carcinogenicity: NTP? No. IARC Monographs? No. OSHA Regulated? No. TLV AND SOURCE: None established by ACGIH or OSHA. Acute Effects of Overexposure: Swallowing: Diarrhea, vomiting and bleeding of the gastro-intestinal tract unless treated promptly. Skin Absorption: Prolonged or repeated exposure may result in the absorption of harmful amounts of material. Inhalation: Vapors are irritating. Skin Contact: Causes chemical burns and may result in sensitization. Eye Contact: Causes moderate corneal injury. Chronic Effects of Overexposure: None currently known. Other Health Hazards: Exposure may result in sensitization of the skin. Medical Conditions Aggravated by Exposure: Amine sensitivity, respiratory illnesses.

"This information is furnished without warranty of any kind, expressed or implied. Five Star Products, Inc. bases the information and recommendations in this document on data believed to be current and accurate."

EMERGENCY AND FIRST AID PROCEDURES:

Swallowing: Do not induce vomiting. Give large quantities of water to dilute material. **Call a physician.** Skin: Remove contaminated clothing and flush skin with plenty of water. **Call a physician.** Inhalation: Remove to fresh air. If breathing is difficult, give oxygen and **call a physician.** Eyes: Immediately flush eyes with plenty of water for at least 15 minutes. **Get medical attention promptly.** Notes to Physician: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

SECTION VII - Precautions for Safe Handling and Use

Steps To Be Taken in Case Material is Released or Spilled: Ventilate area. Absorb spill with suitable absorbent material and place into a closed container. Wear protective equipment during cleanup. Waste Disposal Method: Collect in absorbent material and burn in adequate incinerator or bury in approved landfill. Contact your state or local waste agency, or contact the United States Environmental Protection Agency's RCRA Hotline **(1-800-424-9346) or (202-382-3000).** Precautions To Be Taken in Handling and Storing: Do not get in eyes, on skin, or clothing. Avoid breathing vapors. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Other Precautions: For industrial use only.

SECTION VIII - Control Measures

Respiratory Protection: MSA approved organic mask. Ventilation: Local Exhaust: Require good ventilation. Mechanical (General): Recommended Special: N/A. Other: N/A. Protective Gloves: Rubber or polyethylene. Eye Protection: Safety glasses with side shields or full face mask. Other Protective Clothing or Equipment: Clean, long-sleeve shirt and long leg pants. Work/Hygienic Practices: Practice good housekeeping to avoid skin contact and to avoid breathing vapors.

SECTION IX - U.S. Federal Regulations

TOXIC SUBSTANCES CONTROL ACT (TSCA)-All components of this product are registered under the regulations of The Toxic Substances Control Act. OSHA Hazard Communication Standard (29CFR1910.1200) hazard class(es). Corrosive, toxic by skin absorption and ingestion. EPA SARA Title III Section 312 (40CFR370) hazard class - Immediate Health Hazard. EPA SARA Title III Section 313 (40CFR372) toxic chemicals above "deminimis" level are None.

SECTION X - Transportation Information

DOT PROPER SHIPPING NAME: Corrosive liquid, N.O.S. (Triethylenetetramine Solution); Hazard Class 8; UN1760; Packaging Group II.

SECTION XI - State Regulations

CALIFORNIA PROPOSITION 65: Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986: This product does not contain known levels of any chemical known to the state of California to cause cancer or cause reproductive damage.

SECTION XII - International Regulations

EUROPEAN ECONOMIC COMMUNITY (EEC) EINICS MASTER INVENTORY Polymeric substance; monomers included on Inventory. EEC SYMBOL CORROSIVE (C) EEC COUNCIL DIRECTIVES RELATING TO THE CLASSIFICATION, PACKAGING AND LABELING OF DANGEROUS SUBSTANCES AND PREPARATIONS RISK (R) AND SAFETY (S) PHRASES Harmful if contact with skin and if swallowed (R21/22). Causes burns (R34). Avoid contact with skin, eyes and clothing. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S26). Wear suitable protective clothing, gloves and eye/face protection (S36/37/39).

IMO SHIPPING DATA: Amines, liquid, corrosive, N.O.S., (Triethylene Tetramine), Class 8, UN1760; IMDG CODE PAGE: 8147, Packaging Group II.

ICAO/IATA SHIPPING DATA: Corrosive Liquid, Toxic, N.O.S., (Triethylene Tetramine), Class 8; UN2922; IMDG CODE PAGE: 8149; Packaging Group II; SUBSIDIARY RISK: Toxic.

MATERIAL SAFETY DATA SHEET

FIVE STAR PRODUCTS, INC.
425 Stillson Road
Fairfield, CT 06824
203-336-7900
Issue Date: 5/30/03



EMERGENCY TELEPHONE NO. 1-(800) 255-3924

Supersedes: 2/14/01

FOR CHEMICAL
EMERGENCY
Call Chem-Tel
1-800-255-3924
24 hrs./7days per week

SECTION I - Product Identification: FIVE STAR® EPOXY GROUT AGGREGATE, FIVE STAR RAPID EPOXY AGGREGATE/COMPONENT C

SECTION II - Hazardous Ingredients/Identity Information

Components:

Silicon Dioxide, Crystalline Silica, Silica Sand SiO₂, C.A.S. No. 14808-60-7

OSHA PEL (Permissible Exposure Limit): Exposure to airborne crystalline silica shall not exceed an 8-hour time-weighted limit as stated in MSHA Standards, Subpart D, Section 56.5001 on air quality specifically "Silica: Crystalline: Quartz (respirable) PEL - TWA = 0.1 mg/m³ and 29 CFR 1910.1000 Table Z-1-A, Air Contaminants, specifically: Crystalline Quartz (Respirable) 10 mg/m³ / %SiO₂+2

ACGIH TLV (Threshold Limit Value): Crystalline Quartz TLV-TWA = 0.05 mg/m³ (Respirable Dust). See Threshold Limit Value and Biological Exposure Indices for 1991-1992. American Conference of Governmental Industrial Hygienists.

Other Limits Recommended: National Institute for Occupational Safety and Health (NIOSH). Recommended standard maximum permissible concentration = 0.05 mg/m³ (respirable free silica) as determined by a full-shift sample up to 10-hour working day, 40-hour week.

*Respirable Dust **Total Dust

HMIS: Health = 1 Fire = 0 Reactivity = 0 Personal Protection = E

SECTION III: - Physical/Chemical Characteristics

Boiling Point (°F):	N/A	Specific Gravity (H ₂ O = 1):	2.7
Vapor Pressure (mm Hg.):	N/A	Melting Point (°F):	N/A
Vapor Density: (AIR = 1):	N/A	Evaporation Rate:	None

(Butyl Acetate = 1)

Solubility in Water: Negligible.

Appearance and Odor: Tan to black.

SECTION IV - Fire and Explosion Hazard Data

Flash Point: Noncombustible. Flammable Limits: LEL: N/A, UEL: N/A.

Extinguishing Media: N/A. Special Fire-Fighting Procedures: Not applicable. Unusual Fire and Explosion Hazards: None.

SECTION V - Reactivity Data

Stability: Unstable: () Stable: (X)

Conditions to Avoid: N/A. Incompatibility (Materials to Avoid): Strong acids. Hazardous Decomposition or Byproducts: None known. Hazardous

Polymerization: May occur: () Will not occur: (X)

SECTION VI - Health Hazard Data

Routes of Entry: Inhalation: Yes Skin: Yes Ingestion: Yes

Health Hazards (Acute and Chronic): Prolonged overexposure to Crystalline Free Silica Dust above the threshold limit may cause scarring of the lungs with cough and shortness of breath. A delayed lung injury silicosis may result from breathing free silica. Carcinogenicity: NTP? Yes.

"Known to be a human carcinogen." IARC Monographs? Yes. OSHA Regulated? No. IARC Group 1. "IARC states there is 'sufficient evidence' for the carcinogenicity of inhaled crystalline silica to humans." Signs and Symptoms of Exposure: May cause coughing, sneezing and nasal irritation. May cause skin irritation and dryness. Medical Conditions Aggravated by Exposure: Respiratory ailments. Emergency and

First Aid Procedures: Remove to fresh air. Immediately flush eyes with plenty of water for at least 15 minutes. Wash exposed areas with water thoroughly after handling. See physician.

SECTION VII - Precautions for Safe Handling and Use

Steps To Be Taken in Case Material is Released or Spilled: Cleanup with dustless method (use vacuum or wet sweeping). Provide ventilation.

Waste Disposal Method: Follow state and local regulations for solid waste. If there is a question as to disposal, call the United States

Environmental Protection Agency's RCRA Hot Line (1-800-424-9346) or (202-382-3000). Precautions To Be Taken in Handling and Storing:

Use dustless system of storage and handling. Other Precautions: Use good housekeeping techniques.

SECTION VIII - Control Measures - Respiratory Protection:

When the Permissible Exposure Limit (PEL) or the Threshold Limit Value (TLV) is exceeded on a time weighted average, a respirator program consistent with the Standards of the American National Standards Institute

(ANSI) Z88.2-1969, the Occupational Safety and Health Administration (OSHA) 29 CFR Part 1910.134 and the Mine Safety and Health Administration 30 CFR Part 56, must be instituted. Ventilation: Local Exhaust: Recommended as appropriate. Mechanical (General):

Recommended as appropriate. Special: Engineering controls (e.g. mechanical exhaust) should be in place in order to ensure that the employee

exposure to respirable silica dust does not exceed the permissible exposure limits. Other: None. Protective Gloves: Yes. Eye Protection:

Enclosed eye goggles. Other Protective Clothing or Equipment: N/A. Work/Hygienic Practices: Use good housekeeping techniques.

"This information is furnished without warranty of any kind, expressed or implied. Five Star Products, Inc. bases the information and recommendations in this document on data believed to be current and accurate."



Safety Data Sheet

Date Revised: 5/21/2015

Supersedes: 11/20/2014

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s): Five Star® DP Epoxy Grout / Component C Aggregate
 Five Star® DP Epoxy Grout PG / Component C Aggregate
 Five Star® DP Epoxy Grout High Flow / Component C Aggregate
 Five Star® Elastomeric Grout / Component C Aggregate
 Five Star® Epoxy Grout N / Component C Aggregate
 Five Star® Epoxy Grout Red N / Component C Aggregate
 Five Star® Epoxy Novolac Grout / Component C Aggregate
 Five Star Novolac Structural Concrete®/Component C Aggregate
 Five Star® Pile Jacket Epoxy Grout HP/Component C Aggregate
 Five Star® HP Epoxy Grout / Component C Aggregate
 Five Star® Rapid Epoxy Grout /Component C Aggregate
 Five Star® Rapid Surface Repair Easy Mix/Component C Aggregate
 Five Star® SP Epoxy Grout / Component C Aggregate
 Five Star® SP Epoxy Grout PG / Component C Aggregate

Synonyms: Aggregate, Component C

Product Use: Aggregate for reactive polymer construction products. Designed for use with appropriate hardener and resin.

Restrictions on Use: N/A

Manufacturer/Supplier: Five Star Products, Inc.
 750 Commerce Drive
 Fairfield, CT 06825 USA

Phone #: 203-336-7900

Emergency Phone #: **CHEM-TEL 1-800-255-3924**
(Outside the U.S. 1-813-248-0585)

SECTION 2: HAZARD(S) IDENTIFICATION-GHS INFORMATION

Classification: Eye Damage/Irritation – Category 1
 Sensitization – Respiratory, Category 1
 Carcinogenicity – Category 1A
 Specific Target Organ Systemic Toxicity (Single Exposure) – Cat 3
 Specific Target Organ Toxicity (Repeated Exposure) – Cat 2

Label Elements/Hazard Pictograms:



Signal Word: Warning



Safety Data Sheet

Date Revised: 5/21/2015

Supersedes: 11/20/2014

Hazard Statements: Harmful if swallowed H302
 May cause respiratory irritation H335
 May cause cancer by inhalation H350
 May cause damage to organs through prolonged or repeat exposure H373

Precautionary Statements/Prevention: Do not breathe dust, fume, gas, mist, vapors, or spray, P260.
 Wash thoroughly after handling, P264.
 Wear protective gloves, protective clothing, eye protection and face protection, P280.
 Wear respiratory protection, P284.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting, P330, P331.
 If inhaled: Remove person to fresh air and keep comfortable for breathing, P340.
 If in eyes: Rinse cautiously with water for several minutes, P351.
 Remove contact lenses, if present and easy to do. Continue rinsing, P338.
 Immediately call a poison center or doctor, P310.
 If skin irritation or rash occurs, P333: Get medical advice/attention, P313.
 If experiencing respiratory symptoms, P342: Call a poison center or doctor, P310. Wash contaminated clothing before reuse, P363.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with applicable regional, national, and local laws and regulations.

Hazards Not Otherwise Classified: Not applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS			
Hazardous Ingredient(s)	Common Name/Synonyms	CAS No.	% wt/wt
Quartz	Silicon Dioxide, Silica Sand, Crystalline Silica	14808-60-7	65-90
Amorphous Silica Mixture	n/a	TS	10-35

SECTION 4: FIRST AID MEASURES

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing.
 If experiencing respiratory symptoms call poison center or doctor.



Safety Data Sheet

Date Revised: 5/21/2015

Supersedes: 11/20/2014

Eye Contact:	If in eyes: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin Contact:	Wash skin thoroughly.
Ingestion:	If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person.
General Advice:	In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).
Note to Physicians:	Symptoms may not appear immediately. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability and Explosion Information:

Not flammable or combustible by OSHA/WHMIS criteria.

Sensitivity to Mechanical Impact:

This material is not sensitive to mechanical impact.

Sensitivity to Static Discharge:

This material is not sensitive to static discharge.

MEANS OF EXTINCTION

Suitable Extinguishing Media:

Small Fire: Dry chemical, CO₂, or water spray.
Large Fire: Dry chemical, CO₂, alcohol-resistant foam or water spray. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal; do not scatter the material.

Unsuitable Extinguishing Media:

Not available

Product of Combustion:

Non-combustible

Protection of Firefighters:

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

Use personal protective equipment. Ensure adequate ventilation. Keep people from spill. Avoid dust formation.

Personal Precautions:

Avoid inhalation of dust. Do not get into eyes, on skin, or clothing.

Environmental Precautions:

The environmental impact of this product has not been fully investigated.



Safety Data Sheet

Date Revised: 5/21/2015

Supersedes: 11/20/2014

Methods for Containment: Cover powder spill with plastic sheet or tarp to minimize spreading. Collect this material into a disposal container by sucking or sweeping up.

Methods for Cleanup: Pick up and transfer to properly labeled containers.

Other Information: See Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

Handling: Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Prevent contact with skin, eyes, and clothing. Wash thoroughly after handling.

Storage: Keep containers tightly closed in a cool, dry, and well-ventilated place. Store locked up.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	CAS No.	ACGIH TLV	OSHA PEL
Quartz	14808-60-7	TWA: 0.025mg/m ³ respirable fraction	30/(%SiO ₂ +2) mg/m ³ TWA, Total Dust;250/(%SiO ₂ +5) mppcf TWA, respirable fraction; 10/(%SiO ₂ +2) mg/m ³ TWA, respirable TWA: 0.1 mg/m ³ (vacated)

PEL: Permissible Exposure Limit TLV: Threshold Limit Value

Engineering Controls: Not normally required.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection: Tightly fitting safety goggles

Hand Protection: Impervious gloves. Impervious clothing.

Skin and Body Protection: Impervious gloves. Impervious clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices.



Safety Data Sheet

Date Revised: 5/21/2015

Supersedes: 11/20/2014

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	
Appearance:	Granular Powder
Color:	Gray, Tan, Pink
Odor:	None
Odor Threshold:	None
Physical State:	Solid, powder
pH:	1:1 W/O Water=12
Melting Point / Freezing Point:	n/a
Initial Boiling Point:	n/a
Boiling Point:	n/a
Flash Point:	n/a
Evaporation Rate:	n/a
Flammability (solid, gas):	n/a
Lower Flammability Limit:	n/a
Upper Flammability Limit:	n/a
Vapor Pressure:	n/a
Vapor Density:	n/a
Relative Density:	2.5-2.8
Solubility:	Negligible
Partition Coefficient: n-Octanol/Water:	n/a
Auto-ignition Temperature:	n/a
Decomposition Temperature:	n/a
Viscosity:	n/a
Percent Volatile, wt. %:	n/a
VOC Content, wt. %:	n/a
Density:	n/a
Coefficient of Water/Oil Distribution:	n/a

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: None under normal processing.

Conditions to Avoid: Exposure to water – product may harden on contact with water.



Safety Data Sheet

Date Revised: 5/21/2015

Supersedes: 11/20/2014

Incompatible Materials: Strong acids.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product information:

Inhalation: Irritating to respiratory system. Irritating to mucous membranes.

Eye contact: Risk of serious damage to eyes.

Skin contact: Irritating to skin. May cause allergic skin reaction.

Ingestion: Harmful if swallowed.

Component information:

Chemical Name: Quartz LD50 Oral: 500 mg/kg (Rat) ACGIH: A2 – Suspected Human Carcinogen

IARC: Group 1 – Carcinogenic to humans OSHA: X-present

Delayed and immediate effects and also chronic effects from short and long term exposure.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity:

Aquatic Toxicity: The environmental impact of this product has not been fully investigated.

Persistence and Degradability: No information available.

Bio-accumulative Potential: Does not accumulate in organisms

Mobility in Soil: No further relevant information available

Ecotoxicological Effects Remark: No information available.

Additional Ecological Information: No information available.

General Notes: This statement was deduced from products with a similar structure or composition. Due to available data on eliminability/decomposition and bio-accumulation potential prolonged term damage of the environment cannot be excluded. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Poisonous for fish and plankton in water bodies and toxic for aquatic organisms until alkaline pH is neutralized.

PBT Assessment: N/A

vPvB Assessment: N/A

Other Adverse Effects: No further relevant information available



Safety Data Sheet

Date Revised: 5/21/2015

Supersedes: 11/20/2014

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Recommendation: This material as supplied is not a hazardous waste according to Federal regulations (40CFR261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered.

Uncleaned Packaging Recommendation: Disposal must be made according to official regulations. Do not re-use empty containers.

SECTION 14: TRANSPORT INFORMATION

US DEPARTMENT of TRANSPORTATION (DOT)

Proper Shipping Name: Not regulated

Class: N/A

UN #: N/A

Packing Group: N/A

CANADA Transportation of Dangerous Goods (TDG)

Proper Shipping Name: Not regulated

Class: N/A

UN #: N/A

Packing Group: N/A

SECTION 15: REGULATORY INFORMATION

CHEMICAL INVENTORIES

US (TSCA): The components of this product are in compliance with the chemical notification requirements of TSCA.

CANADA (DSL): The components of this product are in compliance with the chemical notification requirements of NSN Regulations under CEPA, 1999.

U.S. FEDERAL REGULATIONS Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the CFR, Part 372.

UNITED STATES: This SDS has been prepared to meet the US OSHA Hazard Communication Standard, 29 CFR 1910.1200



Safety Data Sheet

Date Revised: 5/21/2015

Supersedes: 11/20/2014

SARA 311/312 Hazard Categories

Acute health hazard – Yes
Chronic Health hazard – Yes
Fire Hazard – No
Sudden Release of Pressure – No
Reactive Hazard - No

US STATE Right to Know Regulations

Chemical Name	NJ	MA	PA	IL	RI
Quartz	X	X	X		X

California California Prop 65:

This product contains the following Proposition 65 chemicals.
Chemical Name: Quartz CAS-No: 14808-60-7 CA Prop. 65: Carcinogen

SECTION 16: OTHER INFORMATION

Disclaimer:

The information contained in this document applies to the specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for one's own particular use.