TECHNICAL & SAFETY DATA SHEET

Technical Data	POLYMER NATION CHEMICAL COMPANY, LLC
F-41 SLQ Clear UV resistant 100% solids epoxy Slurry Terrazzo	

Product Overview: F-41 SLQ consist of our clear, UV resistant epoxy and proprietary ultra-fine color quartz blends to create a 1/16" decorative floor finish. This mixture allows the installer to blend 8 custom colors to create a unique floor finish. When PN 1321 Gint is added to the mix, the finish comes alive with light reflectivity. The cured material has high compressive strength (three times that of concrete) , great impact resistance and can be finish-coated with various epoxy and polyasaprtic topcoats.

Uses: F-41 SLQ is primarily used to create an inexpensive, decorative and durable floor finish. With the appropriate conditions and a skilled installer it can be installed in 2 days after preparation.

Preparation: The preparation method for each project is determined by a full understanding of the substrate to be coated, the chemistry of the coating system being used, the coating system thickness, and numerous other factors. The coating installer should fully read and understand ICRI Guideline NO.03732 and OSHA 29 CFR 1926.1153 before starting preparatory work. The aim, of preparing a substrate for coating applications, is to roughen the surface, remove weak layers, contaminants, dirt, debris and present a solid, clean, dry substrate for the primer. If unsure as to the level of preparation needed, contact Polymer Nation at Lab@polymerNation.com.

The data below represents the most pertinent information needed by a professional installer to understand and efficiently install this material. The data was gathered at temperatures of 72-75 F and 30-50% RH. A wide array of independent and company test data has been compiled on this product but is too large to place on this Technical Data Sheet. Please direct inquiries for detailed test reports on this product to Lab@polymerNation.com.

Description	Results	Notes
Number of mixes per kit	1	A 1 mix kit consists of 2 gal A, 1 gal B, 1-50 LB. bag of PN 1321 F.
Number of Components	3	
Mix Ratio Liquids by Volume	2:1	It is always preferred to mix the entire kit, whenever possible, to avoid off-ratio mixtures
Ideal Application Temperatures	60F-90F	Verify that substrate temperature is above 5 degrees of dewpoint during application and cure of material to avoid a potential amine blush
Mixed Viscosity in cP@25C/77F	300 A and B	Warmer temperatures will reduce viscosity and lower temperatures will increase viscosity
Gel Time	32 min.	Warmer temperatures will decrease gel time and lower temperatures will increase gel time
Dry to Touch	4 Hours	Warmer temperatures will reduce time and colder temperatures will increase time
Through Dry	8 Hours	Warmer temperatures will reduce time and colder temperatures will increase time
Dry to Walk	12 Hours	Warmer temperatures will reduce time and colder temperatures will increase time
Dry to Lightly Use	24 Hours	Warmer temperatures will reduce time and colder temperatures will increase time
Full Cure	7 Days	Warmer temperatures will reduce time and colder temperatures will increase time
Shore Hardness at 24 hours	D65	Warmer temperatures will increase hardness
Shore Hardness at 7 days	D78	Warmer temperatures will shorten time to reach full hardness
Gloss @ 60 Degree Angle	82-85	Applying material close to dew point will decrease gloss and may result in an amine blush
VOC's of Mixed Material	<50g/L	EPA Method 24
Color Scale per ASTM D1500	.5-1.0	Clear to slightly amber
Solids by Volume Mixed	100%	
Storage	60F-90F	Store material between 60-90 degrees F in a protected dry location.
Odor	Subtle	Measuring odor offensiveness is difficult so experience with chemicals has been consulted here
Coverage Per Mix	Each mix will cover 155 sq. ft. at 1/16" theoretical coverage. A waste factor of 10% should be contemplated	
Disposal	Dispose of material, containers, solvents, etc., per Federal, State and local guideline, rules and laws	
Available Colors	System color is generated by the combination of aggregate blends.	
Mixing & Installation	A mixture consists of 2 gal A, 1 gal B and 50 LB. of C (PN 1321 F). Combine part A and B into a single container, large enough to accept the entire kit (1 mix equals 6.5 gallons when Part C is added). Premix liquids at 350 RPM for 1 minutes. Pour Part C (PN 1321 F) into the mixed resin and continue mixing until a homogenous slurry is achieved (2-3 minutes usually), making sure not to introduce excessive air into the solution. Pour material on to floor and spread to desired thickness using a screed rake or notched squeegee. Once material has leveled, back roll with a spiked roller to aid in the release of trapped air. Whenever possible, work the shorter distance not the longer as this will help keep a fresh edge and make for easier blending. Temperature should be descending , not ascending during application and cure of slurry. This is critical whenever a broadcast will not be cast into the wet slurry. Recoat within 24 hours. Clean tools with a solvent similar to Xylene or Acetone.	

TECHNICAL & SAFETY DATA SHEET

DATE PRINTED:	6/29/2023
MSDS REF. No:	E5

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: F-41 SLQ Part A
Product Code: E5

Supplier/Manufacturer: POLYMER NATION CHEMICAL
1949 Swanson Court
Gurnee, IL 60031
(847) 774-5038

EMERGENCY PHONE: CHEMTREC, US (800) 424-9300 24-hours
ORIGINAL DATE ISSUED: 1/13/13 **REVISION DATE**: 2/12/2020

Recommended end use: Half of a two-component system designed for application and use as a protective coating.

2. HAZARDS IDENTIFICATION

Acute Toxicity, Category 4
Aquatic Hazard (Long term) Category 3

SIGNAL WORD: Warning
Hazard-determining components of labeling: Trimethylolpropane Triacrylate
Hazard Statements
H317 May cause an allergic skin reaction
H302 Harmful if swallowed
H412 Harmful to aquatic life with long lasting effects
H335 May cause respiratory irritation
H371 May cause damage to organs – skin, eyes - not proven in humans, based on animal data
Precautionary Statements
P273 Avoid Release to the Environment
P280 Wear protective gloves/ protective clothing/eye protection/face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue Rinsing.
P310 Immediately Call a POISON CENTER or doctor/physician.

HMIS RATING	
Health:	2*
Flammability:	1
Reactivity:	1
Personal Protection:	H

* = denotes potential chronic or long-term effect

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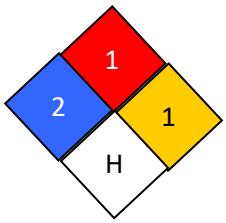

Potential Health Effects:
SKIN: Prolonged or repeated contact with this product may cause skin irritation with local redness and possible allergic reaction. Prolonged contact with material is unlikely to results in skin absorption of harmful amounts. If skin irritation or rash develops, seek medical advice/attention. Dermatitis.
EYES: May cause irritation.
INHALATION: Inhalation of vapors may cause irritation to upper respiratory tract and mucous membranes.
INGESTION: May cause gastrointestinal discomfort. May cause nausea and abdominal pain.
CHRONIC HAZARDS: This product contains no listed human carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. No known teratological or reproductive effects.

3. COMPOSITION / INFORMATION OF INGREDIENTS

This document is a pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). Where a proprietary ingredient is shown, the identity may be made available as provided in this standard. All components of this product are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

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Chemical Name & CAS Number	Weight %	CAS Number
Bisphenol A Epoxy Resin	93%	25085-99-8
UV absorbers / light stabilizers	1-5%	Proprietary
Trade Secrets	6%	15625-89-5

4. FIRST AID MEASURES

GENERAL ADVICE: Consult a physician. Show this safety data sheet to physician in attendance.
EYES: DO NOT WEAR CONTACT LENSES WHILE WORKING WITH THIS PRODUCT. Hold eyelids apart, initiate and maintain gentle and continuous irrigation for at least 20 minutes. If irritation effects occur, consult a physician, preferably an ophthalmologist.
SKIN: Immediately remove contaminated clothing and any excess chemical with plenty of soap and water. Initiate and maintain gentle and continuous irrigation with plenty of water for at least 20 minutes. Seek medical attention if irritation persists. Wash clothing before reuse, if items cannot be decontaminated, discard them. These items may include leather articles such as shoes, belts, and watchbands.
INHALATION: Move to fresh air. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. Seek medical attention if breathing difficulty persists.
INGESTION: No immediate medical attention is necessary in small quantities. In larger quantities, contact a poison control center or bring the label / MSDS with the patient to seek medical care. Do not induce vomiting. If the person is conscious, give several glasses of water by mouth. Never give anything by mouth to an unconscious or convulsing person. If a person vomits while lying on his back, place him in the recovery position. To prevent aspiration of vomit, turn the victims head to the side.

5. FIRE FIGHTING METHODS

SUITABLE EXTINGUISHING MEDIA: Use water fog or fine spray, dry sand, dry chemical fire extinguishers, carbon dioxide fire extinguishers, or alcohol resistant foam.
For safety reasons, unsuitable extinguishing agents: Do not use a direct water stream as it may spread the fire.
SPECIAL FIRE & UNUSUAL HAZARDS: Water fog or fine spray may be used to cool containers exposed to fire and fire affected zone until fire is out. Fight fires from a safe distance.
SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Firefighters should wear butyl rubber boots, gloves, and body suit as well as a self-contained breathing apparatus.
ADDITIONAL INFORMATION: Remove all ignition sources. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
HAZARDOUS COMBUSTION PRODUCTS formed under fire conditions: Carbon oxides, nitrogen oxides. Phenolics.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe area. Ensure adequate ventilation.
Environmental precautions: Prevent further leaking if safe to do so. Flush area with water spray. Absorb spill with inert material (ex. dry sand or earth) and place in a chemical waste container for disposal. Avoid runoff into storm sewers and ditches which lead into waterways. Discharge into the environment must be avoided. If seepage into the environment has occurred, notify respective authorities. Remove residuals with soap and hot water or, in approved circumstances with trained personnel, with solvent.
See Section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

HANDLING: Handle in a well-ventilated workspace. Avoid eye and skin contact. Do not breathe vapors.
STORAGE: Keep from freezing. Keep container closed when not in use. Keep container in a cool, well-ventilated place. Keep away from food, drink, and animal feed stuffs. Keep away from ignition sources and other incompatibilities. Store in original container or a container very similar to that of the original. Keep containers tightly closed and do not store near acids or amines. May partially freeze in cold temperatures, if this occurs, re-warm and homogenize. Store in light-resistant containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants.
Exposure Limits: Trimethylolpropane Triacrylate AIHA WEEL TWA: 1mg/m^3 8 hours
Personal Protection Equipment:
Respiratory Protection: In poorly ventilated areas, a cartridge mask NIOSH approved for organic vapors is recommended. For emergency situations use self-contained breathing apparatus with pressure demand mode.

TECHNICAL & SAFETY DATA SHEET

Skin Protection: Where contact is likely, wear chemical resistant gloves, rubber boots, and chemical safety goggles. Gloves should be tested for chemical resistance before reliable use. (penetration times, rates of diffusion and rate of degradation). Wear long sleeves and pants, exposing as little skin as possible.

Eye Protection: Wear chemical safety glasses with side shields or goggles. In the event of an emergency, use eye goggles with a full-face shield. DO NOT WEAR CONTACT LENSES when working with this material!!

Hygienic Practices: Wash hands before eating. Remove contaminated clothing and wash before reuse. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL & CHEMICAL PROPERTIES

Volatile Organic Content: 3.2 g/L	**Solubility in Water:** Insoluble
Color: Gardener Sale 1-2	**Specific Gravity @ 20°C:** 1.01
Odor: Faint Epoxy, slightly sweet	**pH @ 100%:** N.A.
Physical Appearance: Clear, viscous liquid	**Melting/Freezing point:** N/A
Boiling Point: N/A	**Flashpoint:** N/A
Ignition Temperature: N/A	**Auto-ignition temperature:** N/A
Explosion Limits:	**Water solubility:** Insoluble
Lower: N/A	**Partition coefficient (n-octanol/water):** N/A
Upper: N/A	**Relative vapor density:** N/A
Odor Threshold: N/A	**Evaporation rate:** N/A
N/A = Not Available **N/D =** Not Determined **Ca. =** Approximate	

10. STABILITY & REACTIVITY

STABILITY: This product is stable under recommended and normal storage conditions.
HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.
INCOMPATIBILITY: Extreme heat. Amines. Acids. Strong Oxidizing Agents. Peroxides. Free Radical Initiators. Strong Bases. Reactive metals.
HAZARDOUS DECOMPOSITION PRODUCTS: Combustion products may include but are not limited to: Phenolics. Carbon Monoxide. Carbon Dioxide. Oxides of Nitrogen. Amines.
CONDITIONS TO AVOID: Open Flame / Sparks / Sources of ignition. Heat.

11. TOXICOLOGICAL INFORMATION

Component Toxicological Information: (Acute)
Likely routes of entry: Skin Contact, Skin absorption, Ingestion, Inhalation
4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer

LD50 Oral	Rat 30,000 mg/kg
LD50 Dermal	Rat >2,000 mg/kg

Not classified as a carcinogen by ACGIH, IARC or OSHA. Not listed by NTP.
1-Methoxy-2-Propanol Acetate

LD50 Oral	Rat (female) 5,155 mg/kg
LD50 Dermal	Rabbit >5,000mg/kg
LD50 Inhalation	Rat >100 ppm

Not classified as a carcinogen by ACGIH, NTP, OSHA or IARC. The substance is known to cause human aspiration toxicity hazards or has to be regarded as if it causes human respiration toxicity hazard. Does not cause skin sensitization.
Neopentyl Glycol Diglycidyl Ether

LD50 Oral	Rat >2000 mg/kg
LD50 Dermal	Rabbit >2150 mg/kg

Not classified as a carcinogen by ACGIH, NTP, OSHA or IARC.
Trimethylolpropane Triacrylate

LD50 Oral	Rabbit 5710 mg/kg
LD50 Dermal	Rabbit 5170 mg/kg

Not classified as a carcinogen by ACGIH, NTP, OSHA or IARC.
Mutagenicity results for this compound are mixed. In the Ames test, it yielded a weakly positive response with metabolic activation and a negative response without metabolic activation. This compound was also positive in the mouse lymphoma assay but negative in the UDS assay.

More recently, it yielded positive results in an in vitro mammalian chromosome aberration test. A dermal carcinogenicity study on this compound was negative.
Specific target organ toxicity: No data available for acute exposure.

12. ECOLOGICAL INFORMATION

Marine Pollutant/Ecotoxicity: Harmful to aquatic life with long lasting effects.
Toxicity to fish:
Trimethylolpropane Triacrylate: LC50 (96h): 1-2.2 mg/l
Toxicity to Algae: No data available
Environmental Fate: Bioconcentration potential is low. Biodegradation under aerobic static laboratory conditions is below detectable limits.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: The generation of waste should be avoided or minimized wherever possible. Do not dispose of with household waste. Do not dispose of in landfill. Do not allow contact with sewers or waterways. Comply with all Federal, State and Local regulations. Incinerate in admixture with fuel equipped with a scrubber to remove nitrogen oxides and carbon monoxide. Disposal of in permitted waste management facility if incineration or landfill is not practicable.

14. TRANSPORT INFORMATION

DOT SHIPPING INFORMATION
DOT Proper Shipping Name: Resin Compound- Not regulated
DOT Technical Name: N/A
DOT Hazard Class: N/A **Hazard Subclass:** N/A
DOT I.D. Number: N/A **Packing Group:** N/A
IMDG
Technical Name: Environmentally hazardous substance, Liquid, N.O.S.
Hazard Class: 9 **Hazard Subclass:** N.A.
I.D. Number: UN3082 **Packing Group:** III
INTERNATIONAL REGULATIONS:
CANADIAN WHMIS This MSDS has been prepared in compliance with GHS regulations.

CANADIAN WHMIS CLASS: D2B

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS AS FOLLOWS-

OSHA Hazard Communication Standard (29 CFR 1910.1200): Skin sensitizer.
CERCLA/ Super Fund (40 CFR 117, 302):
CERCLA - SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Immediate Health Hazard (Acute), Delayed Health Hazard (Chronic)

SARA Toxic Chemicals (40 CFR 372):
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: **None.**
TOXIC SUBSTANCES CONTROL ACT: All chemicals in this compound are listed on the TSCA.
NEW JERSEY RIGHT-TO-KNOW / PENNSYLVANIA RIGHT-TO-KNOW:

Component	CAS Number
Solvent naphtha, petroleum, light aromatic	64742-95-6
1-methoxy-2-propanol acetate	108-65-6

California Proposition 65: The following substance(s) is(are) known to the State of California to cause cancer, birth defects or other reproductive harm:

Benzene	CAS # 71-43-2	<0.1%
Toluene	CAS # 108-88-3	<0.1%

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16. OTHER INFORMATION

THE INFORMATION HEREIN HAS BEEN COMPILED FROM SOURCES BELIEVED TO BE RELIABLE AND IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, POLYMER NATION CHEMICAL CANNOT GIVE ANY GUARANTEES REGARDING INFORMATION FROM OTHER SOURCES, AND EXPRESSLY DOES NOT MAKE ANY WARRANTIES, NOR ASSUMES ANY LIABILITY FOR ITS USE.

TECHNICAL & SAFETY DATA SHEET

DATE ISSUED:	6/29/2023
MSDS REF. No:	H5

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: F-41 SLQ Part B
Product Code: H5

Supplier/Manufacturer: POLYMER NATION CHEMICAL
1949 Swanson Court
Gurnee, IL 60031
(847) 774-5038

EMERGENCY PHONE: CHEMTREC, US (800) 424-9300 24-hours
ORIGINAL DATE ISSUED: 1/13/13 **REVISION DATE**: 8/12/13

Recommended end use: Half of a two-component system designed for application and use as a protective coating.

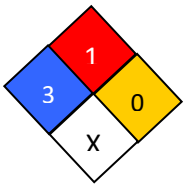
2. HAZARDS IDENTIFICATION

Acute Oral Toxicity, Category 2
Skin Corrosion, Category 1C
Serious Eye Damage, Category 2A
Aspiration Hazard, Category 1

SIGNAL WORD: Danger
Hazard-determining components of labeling: Benzyl Alcohol
Hazard Statements
H317 May cause an allergic skin reaction
H304 May be fatal if swallowed and enters airways
H412 Harmful to aquatic life with long lasting effects
H335 May cause respiratory irritation
H314 Causes severe skin burns and eye damage
Precautionary Statements
P273 Avoid Release to the Environment
P280 Wear protective gloves/ protective clothing/eye protection/face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue Rinsing.
P310 Immediately Call a POISON CENTER or doctor/physician.

HMIS RATING	
Health:	3
Flammability:	1
Reactivity:	0
Personal Protection:	X

NFPA CODES



Potential Health Effects:
SKIN: Causes skin burns. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, and breathing difficulties. Repeated skin exposure may also cause dryness or cracking of the skin.
EYES: May cause irritation. Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. This effect is temporary and has no known residual effect. Causes eye burns. May cause blindness. Severe eye irritation.
INHALATION: Harmful if inhaled and may cause delayed lung injury. May cause nose, throat, and lung irritation. May cause central nervous system effects, such as headache, nausea, dizziness, confusion, and breathing difficulties. Severe cases of overexposure can result in respiratory failure. Inhalation of high concentration of vapors may cause irritation of respiratory system.
INGESTION: If ingested, severe burns of the mouth and throat as well as danger of perforation of the esophagus and the stomach.
CHRONIC HAZARDS: Overexposure may cause lung damage. Liver Disorders. Kidney Disorders. Adverse respiratory effects. Adverse skin effects. Adverse eye effects.
This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

This document is a pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). Where a proprietary ingredient is shown, the identity may be made available as provided in this standard. All components of this product are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Chemical Name		Weight %
Cycloaliphatic Amine	N.A.	100%

4. FIRST AID MEASURES

GENERAL ADVICE: Consult a physician. Show this safety data sheet to physician in attendance.
EYES: Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care from a doctor. If medical care is not promptly available, continue to irrigate for one hour.
SKIN: Immediately remove contaminated clothing and any excess chemical with plenty of soap and water. Initiate and maintain gentle and continuous irrigation with plenty of water until the patient receives medical care from a doctor. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing. NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.
INHALATION: If breathing has stopped or is labored, give assisted respirations. Move to fresh air. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
INGESTION: Do not induce vomiting. If the person is conscious, give several glasses of water by mouth. Never give anything by mouth to an unconscious person. If a person vomits while lying on his back, place him in the recovery position. To prevent aspiration of vomit, turn the victims head to the side. Note to physicians: This product is highly injurious to all tissues, similar to that of ammonia or ammonia gas. Chemical pneumonitis, pulmonary edema, laryngeal edema and delayed scarring of the airway or other affected tissues may occur following exposure. There is no specific treatment. Clinical management is based on supportive treatment, which is similar to that for thermal burns.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Alcohol resistant foam, Carbon dioxide (CO2), dry chemical, dry sand, limestone powder.
For safety reasons, unsuitable extinguishing agents: Water spray.
SPECIAL FIRE & UNUSUAL HAZARDS: Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.
SPECIAL FIREFIGHTING INSTRUCTIONS: Firefighters should wear butyl rubber boots, gloves, and body suit as well as a self-contained breathing apparatus.
ADDITIONAL INFORMATION: Remove all ignition sources. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
HAZARDOUS COMBUSTION PRODUCTS formed under fire conditions: carbon oxides, nitrogen oxides, ammonia gas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe area. Ensure adequate ventilation. Wear a self-contained breathing apparatus and appropriate personal protective equipment.
Environmental precautions: Approach suspected leak areas with caution. Prevent further leaking if safe to do so. Construct a dike to prevent spreading. Flush area with water spray. Absorb spill with inert material (ex. dry sand or earth) and place in a chemical waste container for disposal. Avoid runoff into storm sewers and ditches which lead into waterways. Discharge into the environment must be avoided. If seepage into the environment has occurred, notify respective authorities. Open enclosed spaces to outside atmosphere if possible and stop flow of product.
See Section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

HANDLING: Handle in a well-ventilated workspace. Empty containers may contain explosive vapors. Flush empty containers with water to remove residual flammable liquid vapors. Ground all containers during material transfer. Avoid breathing dust, vapor, or mist. Avoid contact with eyes. Avoid contact with skin or clothing.
STORAGE: Keep from freezing. Keep container closed when not in use. Keep container in a cool, well-ventilated place. Keep away from food, drink, and animal feed stuffs. Keep away from ignition sources and other incompatibilities. Store in original container or a container very similar to that of the original.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

Personal Protection Equipment:

Respiratory Protection: In poorly ventilated areas, a cartridge mask NIOSH approved for organic vapors is recommended. For emergency situations use self-contained breathing apparatus with pressure demand mode.

Skin Protection: Where contact is likely, wear chemical resistant gloves, rubber boots, and chemical safety goggles. Gloves should be tested for chemical resistance before reliable use. (penetration times, rates of diffusion and rate of degradation). Wear long sleeves and pants, exposing as little skin as possible.

Eye Protection: Wear chemical safety glasses with side shields or goggles. In the event of an emergency, use eye goggles with a full-face shield. DO NOT WEAR CONTACT LENSES when working with this material!!!

Hygienic Practices: Wash hands before eating. Remove contaminated clothing and wash before reuse. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Volatile Organic Content: 48.946 g/L	**Solubility in Water:** Insoluble
Color: Gardener Scale 1-2	**Specific Gravity @ 20°C:** 1.030387
Odor: Ammoniacal	**pH @ 100%:** N/A
Physical Appearance: Straw-colored liquid	**Melting/Freezing point:** N/A
Boiling Point: N/A	**Flashpoint:** N/A
Ignition Temperature: N/A	**Auto-ignition temperature:** N/A
Explosion Limits:	**Water solubility:** Insoluble
Lower: N/A	**Partition coefficient (n-octanol/water):** N/A
	Relative vapor density: N/A
Odor Threshold: N/A	**Evaporation rate:** N/A
N/A = Not Available	**N/D** = Not Determined **Ca.** = Approximate

10. STABILITY AND REACTIVITY

STABILITY: This product is stable under recommended and normal storage conditions.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

INCOMPATIBILITY: Reactive metals, materials reactive with hydroxyl compounds, organic acids, mineral acids, sodium hypochlorite, metals, peroxides, oxidizing agents, strong bases, ammonia, hydrogen fluoride, oxygen difluoride, chlorine trifluoride.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion: Silicon Oxides, Nitric Acid, Nitrogen Oxides, Carbon Monoxide, Carbon Dioxide, Aldehydes, Flammable hydrocarbons, organic acid vapors.

CONDITIONS TO AVOID: Open Flame / Sparks / Sources of ignition. Heat.

11. TOXICOLOGICAL INFORMATION

Component Toxicological Information: (Acute)

Likely routes of entry: Skin Contact, Skin absorption, Ingestion, Inhalation

Benzyl Alcohol

LD50 Oral	Rabbit 1040 mg/kg
LD50 Dermal	Rabbit 2000 mg/kg

Not classified as a carcinogen by ACGIH, NTP, OSHA or IARC.

Mutagenic for bacteria and/or yeast. May cause damage to the following human organs: liver, central nervous system. No human data has been found at this point.

Potential chronic health effects: Allergic contact dermatitis through skin contact, changes in behavior from CNS exposure through inhalation. May also affect liver, kidneys, cardiovascular system, and metabolism (weight loss) upon chronic inhalation exposure. Eye irritation/corrosion: Severe eye irritant. Skin irritation/corrosive: Corrosive to the skin of a rabbit. Sensitization: May cause the sensitization of susceptible persons by skin contact.

Specific target organ toxicity: No data available for acute exposure.

12. ECOLOGICAL INFORMATION

Marine Pollutant/Ecotoxicity: Exposure at low concentrations may kill fish. Not a marine pollutant in respect to DOT regulations.

Toxicity to Fish:

Methylenebiscyclohexanamine, 4, 4'-: LC50 (96h): 46-100 mg/l Leuciscus idus

Cyclohexanamine, 4, 4'-methylenebis-, reaction products with bisphenol A diglycidylether homopolymer: LC50 (96h): 7.8 mg/l Oncorhynchus mykiss

Toxicity to Algae:

Methylenebiscyclohexanamine, 4, 4'-: EC50 (72h): 140-200 mg/l Algae

Toxicity to Daphnia:

Methylenebiscyclohexanamine, 4, 4'-: EC50 (48h): 6.84 mg/l Daphnia magna

Environmental Fate: Low bioaccumulation potential

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: The generation of waste should be avoided or minimized wherever possible. Do not dispose of with household waste. Do not dispose of in landfill. Do not allow contact with sewers or waterways. Comply with all Federal, State and Local regulations. Incinerate in admixture with fuel equipped with a scrubber to remove nitrogen oxides and carbon monoxide. Disposal of in permitted waste management facility if incineration or landfill is not practicable.

14. TRANSPORT INFORMATION

DOT SHIPPING INFORMATION

DOT Proper Shipping Name: Amines, Liquid, Corrosive, N.O.S.

DOT Technical Name: Amines, Liquid, Corrosive, N.O.S. (contains 4, 4'-Methylenebiscyclohexanamine)

DOT Hazard Class: 8 **Hazard Subclass:** N/A

DOT I.D. Number: UN2735 **Packing Group:** III

IMDG

Technical Name: Amines, Liquid, Corrosive, N.O.S. (contains 4, 4'-Methylenebiscyclohexanamine)

Hazard Class: 8 **Hazard Subclass:** N/A

I.D. Number: UN2735 **Packing Group:** III

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS: This MSDS has been prepared in compliance with the hazard criteria of the Controlled Product Regulations and the MSDS contains the information required by those regulations.

CANADIAN WHMIS CLASS: E

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS AS FOLLOWS-

OSHA Hazard Communication Standard (29 CFR 1910.1200): Hazardous by definition of Hazard Communication Standard.
Sensitizer. Corrosive.

CERCLA/ Super Fund (40 CFR 117, 302):

CERCLA - SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Immediate Health Hazard (Acute) , Delayed Health Hazard (Chronic)

SARA Toxic Chemicals (40 CFR 372):

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: **None.**

TOXIC SUBSTANCES CONTROL ACT: All chemicals in this compound are listed on the TSCA.

NEW JERSEY RIGHT-TO-KNOW / PENNSYLVANIA RIGHT-TO-KNOW:

Chemical Name	CAS Number
Cycloaliphatic Amine	N.A.
Methylenebiscyclohexanamine,4,4'-	1761-71-3
Cyclohexanamine,4,4'-methylenebis-, reaction products with bisphenol A diglycidylether homopolymer	129733-57-9

California Proposition 65: To the best of our knowledge, no Proposition 65 chemicals exist in this product.

16. OTHER INFORMATION

THE INFORMATION HEREIN HAS BEEN COMPILED FROM SOURCES BELIEVED TO BE RELIABLE AND IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, POLYMER NATION CHEMICAL CANNOT GIVE ANY GUARANTEES REGARDING INFORMATION FROM OTHER SOURCES, AND EXPRESSLY DOES NOT MAKE ANY WARRANTIES, NOR ASSUMES ANY LIABILITY FOR ITS USE.

TECHNICAL & SAFETY DATA SHEET

Product Name: PC 1321 F, F-41 SLQ PART C

Product Description: Crystalline Silica

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE, AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the substance or preparation
Product identifiers: Silica Sand, Quartz, Novaculite, Silicon Dioxide, Silica Flour.

1.2 Other means of identification
Odorless, abrasive (hard), white, gray, or tan granular powder.

1.3 Recommended use and restrictions on use
Main applications of silica (non-exhaustive list): glass Ingredient, silica chemical processing, foundry sand, refractory ingredient, filler for resins, composites, artificial stone, textured coatings, glues and mortars.

DO NOT USE THIS PRODUCT FOR SANDBLASTING.

1.4 Supplier

Company Name:	AGSCO Corporation	Emergency number: 847-520-4455
Address:	160 West Hintz Road	Information number: 847-520-4455
	Wheeling Illinois 60090	Prepared: November, 2017

TECHNICAL & SAFETY DATA SHEET

2. HAZARDS IDENTIFICATION

2.1 Classification in accordance with 29 CFR §1910.1200(d)

STOT RE 1; Carcinogen 1A

2.2 Signal word, hazard statements, symbol and precautionary statements

Danger Causes damage to lungs, kidneys, through prolonged or repeated exposure. May cause cancer by prolonged or repeated inhalation.

Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety instructions have been read and understood. Wear eye and respiratory protection. If exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, regional and national regulations.

2.3 Hazards not otherwise classified

Increased risk of systemic autoimmune disease (scleroderma, rheumatoid arthritis, and systemic lupus erythematosus) through prolonged or repeated inhalation. Increased risk of tuberculosis through prolonged or repeated inhalation. Smoking increases the risk of lung function impairment and chronic obstructive pulmonary disease COPD through prolonged or repeated inhalation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical name and composition

Component	CAS Number	EINECS Number	Percent
Silicon dioxide (quartz)	14808-60-7	238-878-4	98.7 - 99.9
Aluminum Oxide	1344-28-1	215-691-6	<1.1
Iron Oxide	1309-37-1	215-168-2	<0.1
Titanium Oxide	13463-67-7	236-675-5	<0.1

3.2 Common name and synonyms

Silica, SiO_2, quartz, crystalline silica, Novaculite, cryptocrystalline quartz, microcrystalline quartz, sand, chert, flint, tripoli.

3.3 Impurities which are themselves classified and which contribute to the classification of the product

Contains 1% or greater respirable crystalline silica which is classified as STOT RE 1

4. FIRST AID MEASURES

4.1 Eye Exposure

Not classified as an eye irritant. May cause physical abrasion if it gets in eyes. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

4.2 Skin Exposure

Not applicable.

4.3 Inhalation

If exposed or concerned: Get medical attention.

4.4 Ingestion
Not applicable.

4.5 Most important symptoms/effects, acute and delayed
Dry chronic cough, sputum production, shortness of breath, wheezing, and reduced pulmonary function.

4.6 Indication of immediate medical attention and special treatment needed.
Symptoms of pulmonary impairment, such as shortness of breath, coughing, and wheezing.

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Noncombustible and compatible with all extinguishing media.

5.2 Specific hazards arising from the chemical
Noncombustible. Thermal decomposition will not occur.

5.3 Special protective equipment and precautions for fire-fighters
Wear respiratory protection where airborne dust occurs.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures
Avoid generating airborne dust. Wear respiratory protection where airborne dust occurs. Keep unnecessary people away; isolate hazard area and deny entry.

6.2 Methods and materials for containment and cleaning up.
Do not dry sweep or use compressed air. Use water spraying, or a ventilated or HEPA filtered vacuum cleaning system.

7. HANDLING AND STORAGE

7.1 Precautions for safe Handling
Do not breathe dust. Obtain special instructions before use. Do not handle until all safety instructions have been read and understood. Wear eye and respiratory protection. Avoid airborne dust generation.

Use appropriate exhaust ventilation at places where airborne dust is generated, including during loading and unloading. Do not rely on your sight to determine if dust is in the air. Respirable crystalline silica dust may be invisible in the air. Handle packaged products carefully to prevent accidental bursting. Maintain and test ventilation and dust collection equipment. Use all available work practices to control dust exposures, such as water sprays. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Exposures to respirable crystalline silica can occur when cutting, sawing, grinding, drilling, and crushing this material or articles that contain this material.

7.2 Conditions for safe storage
Keep containers closed and store to avoid accidental tearing, breaking, or bursting. Inert and unreactive with most chemicals. Contact with powerful oxidizing agents such as fluorine, chlorine trifluoride, and oxygen difluoride may cause fires.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure limits
OSHA PEL 8-hour time weighted average for respirable quartz expressed as millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques:

$\frac{250}{(\%SiO_2+5)}$

The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable. OSHA PEL 8-hour time weighted average for respirable quartz expressed as milligrams per cubic meter:

$\frac{10\ mg/m^3}{(\%SiO_2+2)}$

Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-selector with the following characteristics:

Aerodynamic diameter (unit density sphere)	**Percent passing selector**
2	90
2.5	75
3.5	50
5	25
10	0

OSHA PEL 8-hour time weighted average for Quartz total dust expressed as milligrams per cubic meter

$\frac{30\ mg/m^3}{(\%SiO_2+2)}$

On September 12, 2013, OSHA published a preliminary quantitative risk assessment concluding that the available evidence indicates that employees exposed to respirable crystalline silica well below the current PELs are at increased risk of lung cancer mortality and silicosis.

CAL OSHA PEL 8-hour time weighted average for respirable quartz 0.1 mg/m^3
CAL OSHA PEL 8-hour time weighted average for quartz total dust 0.3 mg/m^3

ACGIH TLV 8-hour time weighted average for respirable α-quartz and cristobalite 0.025 mg/m^3
NIOSH REL up to 10 -hour time weighted average for respirable quartz ca 0.05 mg/m^3

8.2 Appropriate engineering controls

Avoid airborne dust generation. Use process enclosures and appropriate exhaust ventilation at places where airborne dust is generated, including during loading and unloading. Apply organizational measures, e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing.

8.3 Individual protection measures, such as personal protective equipment

8.3.1 Eye / Face Protection

Wear appropriate safety glasses with side shields or chemical goggles.

8.3.2 Skin Protection

Wear body-covering clothing. Appropriate hand protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session. Remove and wash soiled clothing.

8.3.3 Respiratory Protection

When engineering and work practice controls are not feasible, while they are being implemented, or when they do not reduce silica levels below OSHA PELs, employers must

provide workers with respirators. Whenever respirators are used, the employer must have a respiratory protection program that meets the requirements of OSHA's Respiratory Protection standard (29 CFR 1910.134). This program must include proper respirator selection, fit testing, medical evaluations, and training. See, OSHA's Respiratory Protection eTool, available at www.osha.gov/SLTC/etools/respiratory/index.html

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White, gray, or tan granular powder
Odor	Odorless
Odor Threshold	Not applicable
pH:	Water dispersions are neutral; pH 6 - 8
Specific Gravity:	2.65 g/cc
Melting Point:	3110°F/1710°C
Freezing Point:	Not applicable
Boiling Point:	4046°F/2230°C
Flashpoint:	Not applicable
Flammability:	Noncombustible
Flammable or Explosive Limits:	Not applicable
Vapor Pressure:	Not detectable
Vapor density:	Not applicable
Relative Density:	Not applicable
Solubility:	Dissolves in hydrofluoric acid and produces a corrosive gas, silicon tetrafluoride
Water Solubility:	Negligible
Partition Coefficient n-octanol/water:	Not applicable
Autoignition Temperature:	Not applicable
Decomposition Temperature:	Will not decompose
Viscosity:	Not applicable

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable and inert.

10.2 Chemical Stability

Will not decompose or react with containers or environmental materials

10.3 Possibility of hazardous reactions

Reacts only with powerful oxidizing agents such as fluorine, chlorine trifluoride, and oxygen difluoride which may cause fires. If crystalline silica (quartz) is heated to more than 870°C, it can change to tridymite crystalline silica; and if crystalline silica (quartz) is heated to more than 1470°C, it can change to cristobalite crystalline. The OSHA PEL for respirable tridymite and cristobalite is one-half of the OSHA PEL for crystalline silica (quartz).

10.4 Conditions to avoid

None.

10.5 Incompatible materials

Contact with powerful oxidizing agents such as fluorine, chlorine trifluoride and oxygen difluoride, which may cause fires.

10.6 Hazardous Decomposition Products

None. Will not decompose.

11. TOXICOLOGICAL INFORMATION

11.1 Likely routes of exposure

The relevant route for occupational exposure is by inhalation.

11.2 Symptoms related to the physical, chemical and toxicological characteristics

Dry chronic cough, sputum production, shortness of breath, wheezing, and reduced pulmonary function.

11.3 Delayed and immediate effects and also chronic effects from short- and long-term exposure

11.3.1 Short-term exposure

Acute silicosis can occur within a few weeks to months after inhalation exposure to extremely high levels of respirable crystalline silica. Acute silicosis causes decreased lung function and can result in heart disease secondary to the lung disease: heart failure and cor pumonale. Death from acute silicosis can occur within months to a few years of disease onset, and persons with acute silicosis are at high risk of contracting other lung diseases including tuberculosis, atypical mycobacterial infections, and fungal superinfections. Quantitative information on the level of exposure that causes acute silicosis is not available, but available information indicates those levels are far in excess of permissible exposure limits. Animal studies also suggest that pulmonary reactions of rats to short-duration exposure to freshly fractured silica mimic those seen in acute silicosis in humans.

Accelerated silicosis results from exposure to high levels of airborne respirable crystalline silica, and usually occurs within 2 to 10 years of initial exposure. Accelerated silicosis causes decreased lung function and can result in heart disease secondary to the lung disease. Accelerated silicosis has a rapid, severe course and persons with this condition are at high risk of contracting other lung diseases including tuberculosis, atypical mycobacterial infections, fungal superinfections, and lung cancer. Quantitative information on the level of exposure that causes accelerated silicosis is not available, but available information indicates those levels are substantially in excess of permissible exposure limits.

11.3.2 Long term exposure

Chronic silicosis generally occurs after 10 years or more of inhalation exposure to respirable crystalline

silica at levels below those associated with acute and accelerated silicosis. Chronic silicosis in most cases is a slowly progressive disease resulting in decreased lung function and can result in heart disease secondary to the lung disease. Its effects are disabling and may lead to death. Persons with chronic silicosis are at high risk of contracting other lung diseases including tuberculosis, atypical mycobacterial infections, fungal superinfections, and lung cancer. On September 12, 2013, OSHA published a preliminary quantitative risk assessment concluding that the available evidence indicates that employees exposed to respirable crystalline silica well below the current PELs are at increased risk of lung cancer mortality and silicosis.

Chronic obstructive pulmonary disease, COPD, including chronic bronchitis and emphysema, occurs in silica-exposed workers, including those who do not develop silicosis. Respirable crystalline silica exposure and smoking may be synergistic for COPD, that is, there is evidence that the combined effect of exposure to respirable crystalline silica and smoking may be greater than additive.

Respirable crystalline silica is recognized by OSHA, NTP and IARC as a cause of lung cancer. Respirable crystalline silica is an independent risk factor from smoking for lung cancer. Respirable crystalline silica exposure and smoking may be synergistic for lung cancer, that is, there is some evidence that the combined effect of exposure to respirable crystalline silica and smoking may be greater than additive.

There is substantial evidence suggesting an association between exposure to inhaled respirable crystalline silica and increased risks of renal (kidney) and systemic autoimmune disease (scleroderma, rheumatoid arthritis, and systemic lupus erythematosus).

11.4 Numerical measures of toxicity (such as acute toxicity estimates)

Crystalline silica is not acutely toxic. Reliable numerical measures of chronic toxicity do not exist.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity (aquatic and terrestrial, where available

Crystalline silica (quartz) is ubiquitous in the natural environment. It is not ecotoxic; i.e., no data exists that demonstrate or suggests that crystalline silica (quartz) is toxic to animals, microorganisms, or plants.

12.2 Persistence and degradability

Because of its low solubility and slow rate of solution, crystalline silica (quartz) is persistent except on a geologic time-scale.

12.3 Bioaccumulative potential

Does not bioaccumulate. Some plants, such as gramanae (grasses) and animals such as Demospongiae (siliceous sponges) bioaccumulate silica, but this occurs by absorption of dissolved silica from natural waters.

12.4 Mobility in soil

Immobile in soil.

12.5 Other adverse effects

None.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Method

Disposed material is not a hazardous waste. Where possible, recycling is preferable to disposal. Dispose in

accordance with local, regional and national regulations.

13.2 Container Handling and Disposal

Avoid airborne dust generation from residues in packaging, and use suitable engineering controls and personal protection measures. Store used packaging in enclosed receptacles. Dispose of containers, residues and unused contents accordance with local, regional and national regulations

14. TRANSPORTATION INFORMATION

14.1 UN number

None. Not a regulated material for transportation purposes.

14.2 UN proper shipping name

None. Not a regulated material for transportation purposes.

14.3 Transport hazard class(es)

None. Not a regulated material for transportation purposes.

14.4 Packing group, if applicable

Not applicable.

14.5 Environmental hazards

None.

14.6 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

Not applicable.

14.7 Special precautions

Do not breathe dust. Wash thoroughly after handling.. Do not eat, drink or smoke when using this product. Avoid generating airborne dust during loading and unloading. Use suitable engineering controls and personal protection measures. Handle packaged products carefully to prevent accidental bursting.

15. REGULATORY INFORMATION

15.1 Toxic Substances Control Act (TSCA) status

Crystalline silica (quartz) is listed on the EPA TSCA inventory under the CAS No 14808-60-7.

15.2 Resource Conservation and Recovery Act (RCRA) status

Disposed product is not a hazardous waste under RCRA.

15.3 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) status

No CERCLA Reportable Quantity has been established for any ingredient in this product.

15.4 Emergency Planning and Community Right to Know Act (SARA Title III) status

Not an Extremely Hazardous Substance under §302. Not a Toxic
Chemical under §313. Hazard Categories under §§311/312: Acute.

15.5 Clean Air Act status

This product is not processed with nor does it contain any Class I or Class II ozone depleting substances.

15.6 California Proposition 65 status

Crystalline silica (airborne particles of respirable size) is classified as a substance known to the State of California to be a carcinogen.

15.7 Massachusetts Toxic Use Reduction Act status

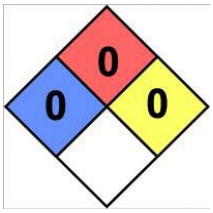
Silica, crystalline (respirable size, <10 microns) is "toxic" for purposes of the Massachusetts Toxic Use Reduction Act.

15.8 Pennsylvania Worker and Community Right to Know Act status

Quartz is a hazardous substance, but it is not a special hazardous substance or an environmental hazardous substance under the Pennsylvania Worker and Community Right to Know Act.

16. OTHER INFORMATION

16.1 NFPA 704: Standard System for the Identification of the Hazards of Materials for Emergency Response (Fire Diamond)



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