DATE PREPARED 04/17/2001 DATE REVISED fcmaster

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	GLASS BATCH - Agglomerated - all variations cc01-720
PRODUCT CODE	n/a
CHEMICAL FAMILY	n/a
CHEMICAL NAME	Glass, soda-lime type
FORMULA	various

MANUFACTURER NAME	Spruce Pine Batch Co.
ADDRESS	Highway 19 E, PO Box 159
CITY, STATE, ZIP	Spruce Pine NC 28777 USA
CONTACT PERSON:	Tom Littleton
TITLE	President
INFORMATION TEL:	1-828-765-9876

In case of emergency: Contact local poison control center-material is listed with PoisIndex.

CHEMTREC TEL: n/a

SECTION 2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient Listing	CAS No.	OSHA PEL	ACGIH TLV	STEL	% COMP
Silica (quartz)	14808-60-7	10 mg/m3	0.05 mg/m3	n/l	<60
Soda Ash	497-19-8	n/l	n/l	n/l	<30
Limestone	1317-65-3	15 mg/m3	10 mg/m3	n/l	<20
Calcium hydroxide	1305-62-0	5.0mg/m3	5.0mg/m3	n/l	<20
Feldspar	68476-25-5	10mg/m3	10mg/m3	n/l	<15
Barium Carbonate	513-77-9	0.74mg/m3	0.74mg/m3	n/l	<15
Dolomite	16389-88-1	n/l	n/l	n/l	<15
Potash	584-0-7	n/l	n/l	n/l	<10
Borax	1303-96-4	n/l	n/l	n/l	<10
Cryolite	15096-52-3	n/l	n/l	n/l	<10
Potassium Nitrate	7757-79-1	n/l	n/l	n/l	<10
Boric Acid	10043-35-3	n/l	n/l	n/l	<10
Fluorspar	7789-75-5	2.5mg/m3	2.5mg/m3	n/l	<10
Sodium Sulphate	7767-82-6	n/l	n/l	n/l	<10
Sodium Nitrate	7631-99-4	n/l	n/l	n/l	<10
Lithium Carbonate	554-13-2	n/l	n/l	n/l	<05
Zinc Oxide	1314-13-2	5mg/m3	5mg/m3	10mg/m3	<05
Antimony Oxide	1309-64-4	0.5mg/m3	0.5mg/m3	n/l	<01

Dust hazards are signicantly reduced by agglomerating the batches. Note: Every ingredient is not in every formula variation or color.

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING! HARMFUL IF INHALED. OVEREXPOSURE MAY CAUSE LUNG DAMAGE. MAY CAUSE EYE AND SKIN BURNS OR IRRITATION. INHALATION CANCER HAZARD. Contains crystaline silica (quartz) which can cause cancer.

PHYSICAL DESCRIPTION: **Agglomerated glass mixtures. Powder and/or dust.**

MAJOR HEALTH HAZARD	Silicosis caused by inhalation; cancer hazard.
PHYSICAL HAZARD	May cause eye and skin irritation.
ROUTES OF ENTRY:	INHALATION yes SKIN no EYE no INGESTION no
POTENTIAL HEALTH EFFECTS	Acute and chronic effects.
INHALATION:	
SHORT TERM EXPOSURE	Acute pneumoconiosis when overwhelming exposure to silica dust has occurred. Coughing and irritation of throat are early symptoms.
LONG TERM EXPOSURE	Inhalation of quartz is classified as a human carcinogen. Chronic exposure can cause silicosis a form of lung scarring that can cause shortness of breath, reduced lung function, and death in severe cases.
SKIN CONTACT:	
SHORT TERM EXPOSURE	May be corrosive and cause burns and blistering. May cause skin irritation upon contact; may be aggravated on wet skin.
LONG TERM EXPOSURE	May lead to dermatitis.
EYE CONTACT:	
SHORT TERM EXPOSURE	Dust may be corrosive. Dust may cause eye irritation, redness and pain.
LONG TERM EXPOSURE	Unknown
INGESTION:	
SHORT TERM EXPOSURE	No adverse health effects expected.
LONG TERM EXPOSURE	None expected.

CARCINOGEN STATUS:

NTP	**listed (crystalline silica)**
IARC	**listed (crystalline silica)**
OSHA	**not listed (crystalline silica)**

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
May increase progression of tuberculosis. Persons with impaired respiratory function may be more susceptible to the effects of this substance. Smoking can increase risk of lung injury.

SECTION 4 FIRST AID MEASURES

EYES:	**Immediately flush eyes with plenty of water for at least 15 minutes holding lids apart to ensure flushing of entire eye surface. Get medical advice if irritation develops.**
SKIN:	**Wash contaminated areas with plenty of soap and water. Remove contaminated clothing, and wash before re-use. Call a physician if irritation develops and persists.**

INHALATION: Remove to fresh air. If breathing is difficult, administer oxygen as available. Seek medical attention.

INGESTION: Seek medical attention. Do not induce vomiting unless instructed to do so by a physician, or other knowledgeable authority.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT: n/a

FIRE AND EXPLOSION HAZARDS: Not considered to be a fire hazard.

EXTINGUISHING MEDIA: Use any means suitable for extinguishing surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

SECTION 6 ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Collect excess material. Add water to avoid dust dispersal. Ventilate area. Wear appropriate personal protective equipment as specified in Section 8. Sweep up carefully, avoiding dust, and containerize for reclamation or disposal.

SECTION 7 HANDLING AND STORAGE

STORAGE TEMPERATURE (min/max): Cool temperature
SHELF LIFE: No limit

SPECIAL SENSITIVITY: None known

HANDLING AND STORAGE: Keep containers closed. Store in dry ventilated area. Wash thoroughly after handling.

PRECAUTIONS: KEEP OUT OF THE REACH OF CHILDREN! Do not breathe dust. Use only with adequate ventilation. Avoid contact with eyes, skin, and clothing. Use dustless systems for handling, storage, and clean up so that dust does not exceed the PEL. Practice good housekeeping. Do not allow dust to collect on surfaces. Containers of this material may be hazardous when empty since they retain product residues; observe all warnings and precautions. Maintain, clean, and test repirators in accordance with OSHA regs.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:	OSHA PEL: Respirable: 10mg/m3/(%SiO2+2) ACGIH TLV: 0.05 mg/m3 (TWA) respirable dust. A2 - Suspected Human Carcinogen.
EYE PROTECTION:	Safety glasses or chemical goggles for bulk powder. Maintain eye wash fountain and quick drench facilites in work area.
SKIN PROTECTION:	Gloves and protective clothing. Change clothing if exposed to heavy dusts or spillage. Launder clothing before re-use.
RESPIRATORY AND VENTILATION:	VENTILATION SYSTEM: A system of local and/or general exhaust is recommended to keep exposures below AEL. Local exhaust ventilation is preferred. PERSONAL RESPIRATORS (NIOSH APPROVED): If exposure limit is exceeded and engineering controls are not feasible, a half face high effeciency particulate respirator (NIOSH APPROVED) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. Where the exposure levels are not known, use a full facepiece positive pressure, air supplier respirator. WARNING! Air-purifying respirators do not protect workers in oxygen deficient atmospheres. Where respirators are required, you must have a written program covering the requirements as authorized in the OSHA respirator standard.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM	agglomerated; granules
COLOR	various
ODOR	odorless
BOILING POINT	> 2230 C
MELT POINT	> 1710 C
FREEZE POINT	n/a
PH	not known
SOLUBILITY IN WATER	not soluble
SPECIFIC GRAVITY	2.65
BULK DENSITY	n/a
% VOLATILE BY WEIGHT	n/a
VAPOR PRESSURE	n/a
VAPOR DENSITY	n/a

SECTION 10 STABILITY AND REACTIVITY

STABILITY:	Stable
POLYMERIZATION:	Hazardous polymerization will not occur.
INCOMPATIBILITIES:	In presence of water or perspiration, caustic compounds may form. Contact with acids can release toxic gases

and large quantities of carbon dioxide which in a confined area could lead to suffocation. Incompatible with organic materials, cyanides, reducing materials, and nascent hydrogen.

DECOMPOSITION PRODUCTS: At higher temperatures, can change crystal structure to form tridymite or cristobalite, which have greater health hazards. Oxides of nitrogen, stibine (selenium) gas, and hydrogen selenide.

CONDITIONS TO AVOID: Dusting and incompatible materials

SECTION 11 TOXICOLOGICAL INFORMATION

HEALTH EFFECTS: The major concern is silicosis, caused by the inhalation and rention of respirable crystalline silica dust. Silicosis may be progressive and exist in several forms, chronic, accelerated, or acute. It may lead to disability and death. Crystalline silica inhaled from occupational sources is classified as carcinogenic to humans but risk of cancer depends on duration and level of exposure. Overexposure may cause kidney disease. There is evidence that exposure to respirable crystalline silica or that the disease silicosis is associated with the increased incidence of several autoimmune disorders. Individuals with silicosis are at increased risk to develop pulmonary tuberculosis if exposed to persons with tuberculosis.

INHALATION: Inhalation of respirable dust is the route of entry.

SKIN CONTACT: Not applicable

EYE CONTACT: Crystalline silica (quartz) may cause abrasion of the cornea.

INGESTION: Not applicable

SECTION 12 ECOLOGICAL INFORMATION

No ecological effects known

SECTION 13 DISPOSAL CONSIDERATIONS:

WASTE DISPOSAL METHOD: Dispose of waste in complicance with local, state and federal regulations. Handle full or empty bags in a manner to avoid dusting. Dispose of empty containers in a manner which will not cause dusting during transportation, or from the ultimate disposal site. Melt and dispose of waste as you would any glass product.

SECTION 14 TRANSPORTATION INFORMATION:

SPRUCE PINE BATCH CO, HIGHWAY 19 E, PO BOX 159, SPRUCE PINE, NC 28777

D.O.T. SHIPPING NAME:	n/a
TECHNICAL SHIPPING NAME:	n/a
D.O.T. HAZARD CLASS:	n/a
I.D. N./N.A. NUMBER	n/a
PRODUCT RQ (LBS)	n/a
D.O.T. LABEL	n/a
D.O.T.PLACARD	n/a
FREIGHT CLASS BULK	n/a
FREIGHT CLASS PACKAGE	n/a
PRODUCT LABEL	n/a

SECTION 15 REGULATORY INFORMATION

OSHA STATUS	no
TSCA STATUS	no
CERCLA REPORTABLE QUANTITY	no
SARA TITLE III:	no
SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES	n/a
SECTION 311/312 HAZARD CATEGORIES	n/a
SECTION 313 TOXIC CHEMICALS	n/a
RCRA STATUS	n/a
STATE REGULATORY INFORMATION	**California Prop 65: WARNING: This product contains a chemical known to the state of California to cause cancer**

COMPONENT NAME & CAS NUMBER	CONCENTRATION	STATE CODE
quartz (14808-60-7) (crystalline silica)	**NSRL is not listed**	**CA**

FHSA STATUS	**Chronic health hazard warning label required (LHAMA)**
16 CFR 1500.14 ASTM D-4236 STATUS	**CONFORMS TO ASTM D-4236**

SECTION 16 OTHER INFORMATION

REASON FOR ISSUE:	**Initial document**
PREPARED BY:	**Environmental Medicine Inc.**
APPROVED BY:	**Rudolph J. Jaeger, PhD, DABT, REA (California)**
TITLE:	**President**

APPROVAL DATE 04/17/01
SUPERCEDES DATE: n/a
MSDS NUMBER: 1

MSDS SUMMARY OF CHANGES: NONE

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REVISION DATE