SPRUCE PINE BATCH CO.

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MATERIAL SAFETY INFORMATION

Product Name: Pelletized Glass Batch

Typical Composition of Labino Formula:

Silica (SiO_2)	54%	Zinc oxide (ZnO)	1%
Soda ash (Na_2CO_3)	21	Barium carbonate ($BaCO_3$)	1
Limestone ($CaCO_3$) (1)	12	Fluorspar (CaF_2)	.2
Feldspar ($(Na,K,Ca)AlSi_3O_8$)	8	Antimony oxide (Sb_2O_3)	.2
Sodium nitrate ($NaNO_3$)	2	Selenium (Se_8)	.04
Lithium carbonate (Li_2CO_3)	2	Cobalt oxide (Co_2O_3)	.0001

Other Formulas from SPB may also have the following:

Potash (K_2CO_3)	10% max	Sodium nitrate ($NaNO_3$)	3.5% max
Dolomite ($CaMg(CO_3)_2$)	9	Cryolite (Na_3AlF_6)	3
Barium carbonate ($BaCO_3$)	6.5	Potassium nitrate (KNO_3)	2.5
Borax ($Na_2B_4O_7 \cdot 5H_2O$)	4.5	Boric acid (H_3BO_3)	2
Fluorspar (CaF_2)	3.5	Antimony oxide (Sb_2O_3)	.3

Spruce Pine Batch Co. has reduced the health hazards associated with the melting of glass batch by pelletizing the batch. This process significantly lowers the dust level during charging and eliminates the problems of storing and mixing the various chemicals. However, the following procedures should be followed to comply with various safety regulations.

Special Precautions

1) Use only with adequate ventilation.
2) Avoid breathing dusts.
3) Avoid skin and eye contact.
4) Wash thoroughly after handling.
5) Store in cool, dry, well-ventilated area.
6) Keep containers closed.
7) Change clothing if exposed to heavy dusts or spillage; clothing should be laundered before reuse.

Personal Protective Equipment

1) NIOSH/MSHA approved respiratory protection as needed.
2) Safety glasses, chemical goggles.
3) Gloves, protective clothing as necessary to prevent skin contact.

Threshold Limit Value: .5 mg/m^3; Se is .2 mg/m^3, but the percentage is very small.

Fire and Explosion Data

May contain sodium nitrate or potassium nitrate. Does not burn, but provides oxygen to existing fires. Small percentages do not have a significant effect.

Health Hazard Data (Summary for all ingredients)

Primary Route of Entry: Inhalation

Effects of Overexposure:

Eyes: May cause eye irritation upon contact.

Skin: May cause skin irritation upon contact, aggravated by moist conditions. Prolonged or repeated skin contact may lead to dermatitis.

Absorption: Not easily absorbed thru unbroken skin.

Ingestion: Oral intake may cause irritation of the digestive tract, weakness, salivation and nausea, followed by vomiting and diarrhea. Patient may become cold and may experience varying degrees of paralysis. In extreme cases, death may result.

Inhalation: Irritating to the upper respiratory tract. May cause general depression, headache and mental impairment, along with symptoms similar to those of ingestion. Prolonged overexposure could lead to silicosis.

Emergency and First Aid Procedures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes holding lids apart to ensure flushing of entire eye surface. Seek medical attention.

Skin: Wash contaminated areas with plenty ofsoap and water. Remove contaminated clothing and wash before reuse. Call a physician if irritation develops and persists.

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

Inhalation: Remove from dusty area; if breathing difficult, give oxygen. Seek medical attention.

Reactivity Data

Conditions Contributing to Instability: None

Incompatibility: In the presence of water or perspiration, caustic compounds may form. Contact with acids can release toxic gases and large quantities of carbon dioxide (CO_2), which, in a confined area, could lead to suffocation. Also incompatible with organic materials, cyanides, reducing materials, nascent hydrogen.

Hazardous Decomposition Products: Oxides of nitrogen, stibine gas, hydrogen selenide.

Hazardous Polymerization: Will not occur.

Waste Disposal Method

Dispose of in accordance with federal, state, and local laws. Handle full or empty bags in a manner to avoid dusting. Empty containers should be disposed of in a manner which will not cause dusting during transportation or from the ultimate disposal site, OR Melt and dispose of as you would any glass product.

Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied.

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(1) Hydrated Lime may be substituted for limestone in some formulas.