PLASTICS ENGINEERING COMPANY
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EMERGENCY TELEPHONE NUMBER: (920) 458-2127

For effective hazard communication, this MSDS must be made available to those who handle or use the product and to those who control conditions of handling or use. Please send this MSDS to all appropriate individuals in your organization, especially those responsible for health and safety.

PRODUCT INFORMATION

PRODUCT NAME: PLENCO 01530

CAS NO.: N/A

CHEMICAL FAMILY: Thermoset polyester molding compound

CHEMICAL NAME: Unsaturated polyester polymeric molding compound

REVISION DATE: 03/21/96 REVISION NUMBER: 1

NOTE: Unless specifically indicated otherwise, the following information applies to the compound in the form sold, not to articles, parts, etc. molded of the compound; in normal molding, the material substantially completes its progression to a cross-linked insoluble, infusible solid.

SECTION 1 HEALTH HAZARD DATA

Polyester molding compounds are solid systems that do not contain phenol, formaldehyde, ammonia or volatile monomers such as styrene. We are not aware of any hazardous emissions associated with these compounds, either "As Sold" or "As Used".

AS SOLD:

The product is a plastic molding compound: A plastic resin (polyester polymer) intimately mixed and reacted with one or more of a variety of organic and/or inorganic filling materials. The plastic resin is not believed or known to be hazardous. When fully “cured” or reacted, the plastic resin is insoluble, infusible and binds the well- dispersed, embedded filling materials. The great majority of filling materials are embedded within compound granules that are large enough not to constitute an inhalation hazard. Nevertheless, some particles of plastic resin and/or filling materials may be present in a size that constitutes a respirable dust (including, in some products, up to 1% inorganic filling material mixed in after compounding). This respirable dust may contain one or more of the following materials: crystalline silica, amorphous silica (diatomaceous earth), carbon black, fibrous glass, and/or wood flour (soft). Chronic inhalation of each of the above has been associated with fibrotic lung disease. For most or all, it has also been associated with increased risk of lung cancer, especially among smokers. Inhalation of dust should be avoidable with proper material handling procedures and good ventilation, but if not, respirators should be

worn. The primary acute health risk from exposure to the product "As Sold" is irritation, especially from the dust. Ingestion, inhalation of dust, and contact with skin and eyes should be avoided.

AS USED

During polymerization *(*e.g., curing of the product during normal processing) no significant gaseous byproducts are expected. During decomposition (e.g., overheating or burning of the product) normal products of combustion would be expected. Grinding or machining of cured molded material may create a dust that poses a respiratory hazard if inhaled (See Below).

ACUTE OR CHRONIC HEALTH HAZARD INFORMATION

Ordinary use of this product is unlikely to produce significant exposure to hazardous chemicals. PELs for these chemicals are set at levels designed to avoid any significant health risk and are achievable with proper material handling procedures, ventilation and housekeeping. Nevertheless, per OSHA requirement, we list the following possible health hazards if one were exposed to the following chemicals at levels much higher, or in a different form, than expected from ordinary use of this product:

POSSIBLE RESPIRABLE DUST COMPONENTS:

1. Crystalline Silica - Irritant to eyes, mucous membranes and respiratory tracts.
    - Long term breathing of excessive concentrations of dust may cause lung damage (silicosis); crystalline silica has been classified as a probable carcinogen in such cases by the IARC.
2. Amorphous Silica (Diatomaceous Earth) - Irritant to eyes, mucous membranes and respiratory tracts.
    - Believed to be fibrogenic under some circumstances but are generally considered less fibrogenic than the crystalline forms.
3. Carbon black - Irritant to eyes and respiratory tracts.
    - Exposure at high levels is associated with declines in pulmonary function and cardio vascular stress.
4. Fibrous Glass – Mechanical irritant to eyes, nose and skin.
    - Can cause irritation and inflammation of the nasopharyngeal region and upper respiratory tract.
5. Wood flour (soft) - Irritant to eyes, mucous membranes and upper respiratory tracts.
    - Various species of wood dust can elicit allergic contact dermatitis in sensitized individuals.
    - May cause respiratory sensitization.

SECTION 2 FIRST AID

Eyes: Immediately flush eyes with copious amounts of water for at least 15 minute.
Get medical attention.

Skin: Wash thoroughly with soap and water.

Inhalation: Use with adequate ventilation.
If breathing is affected, remove to fresh air.
If breathing stops, apply mouth to mouth resuscitation.
Get medical attention.

Ingestion: If conscious, give water immediately and induce vomiting by placing finger down throat.
Never give anything by mouth to an unconscious person.
Get medical attention.

SECTI0N 3 FIRE AND EXPLOSION DATA

Flash Point: No flash point

Flammable Limits: LEL: Dust .030 oz. / per cubic foot UEL: No data

Extinguishing Media: Water spray, foam, dry chemical, carbon dioxide

Special Fire Fighting Procedures: MSHA/NIOSH approved self-contained breathing apparatus recommended. Avoid inhalation of gases.

Unusual fire and explosion hazards: Organic dust/air mixtures are highly flammable (explosive); avoid dust accumulations or dust-laden atmospheres and sources of ignition.

SECTI0N 4 CONTROL MEASURES

Work/Hygienic Practices: Eye wash and shower facility should be available. Practice good hygiene and maintain a clean work environment.

Ventilation: Point source exhaust recommended to remove dust and vapors evolved during use (dust collection system). Use explosion proof motors.

Respiratory Protection: NOISH approved respirators recommended if TLVs are exceeded.

Protective Clothing: Gloves recommended.

Eye Protection: Safety glasses with side shields.

Storage: Store in a cool, dry place. Keep containers closed to avoid contamination. Prevent accumulations of dust. Avoid excessive heat and sources of ignition. Observe good housekeeping practices.

SECTI0N 5 PHYSICAL DATA

Boiling Point: (760 mm Hg)	N/A	Specific Gravity: (H_20 = 1)	See technical data sheet
Vapor Pressure: (mm Hg 20 Deg C)	N/A	Percent Volatile: (by weight)	N/A
Vapor Density: (Air = 1)	N/A	Evaporation rate: (Butyl acetate = 1)	N/A
Heat of Vaporization: (Delta HV)	N/A	Solubility in water: (% by weight)	Negligible

Appearance and Odor: Granular, nodular, pellet or briquette with slight odor of phenol

SECTI0N 6 HAZARDOUS INGREDIENTS/SARA TITLE III

	CAS#	PERCENT	TLV/PEL	
Crystalline Silica	14808-89-7	<0.9	ACGIH-TWA/RESPIR OSHA-TWA	0.1 mg/m ^{3} 10 mg/m^3 %SiO_2 + 2
Amorphous Silica		<0.6	ACGIH-TWA OSHA-TWA	10 mg/m ^{3} 6 mg/m^3
Carbon Black	1333-86-4	<12	ACGIH-TWA OSHA-TWA	3.5 mg/m ^{3} 3.5 mg/m^3
Particulates not otherwise classified (PNOC)		<70	ACGIH-TWA/INHAL ACGIH-TWA/RESPIR OSHA-TWA/TOTAL OSHA-TWA/RESPIR	10 mg/m^3 3 mg/m^3 15 mg/m^3 5 mg/m^3

SECTI0N 7 REACTIVITY DATA

Stability: Stable

- Avoid contamination, exposure to flame or heat, or storage at temperatures in excess of 100 degrees F.

Incompatibility: Like most organic materials, this product is sensitive to strong oxidizing agents and may either decompose or ignite when mixed with same.

Hazardous Decomposition Products: Normal products of combustion.

Hazardous polymerization: Should not occur.

SECTI0N 8 SPILL, LEAK, AND DISPOSAL

Spill or Leak Procedure:

- Vacuum or sweep with sweeping compound, sawdust or sand.
- Avoid generating dust.
- Vacuums with explosion proof motors are recommended.

Waste Disposal:

- Bury or incinerate in accordance with local, state, and federal regulations.

SECTI0N 9 TRANSPORTATION INFORMATION

Shipping Classification	DOT Hazard Class
Plastic Materials VIZ: Powdered form NMFC item #156200	Non-Hazardous

SECTI0N 10 ADDITIONAL INFORMATION

N/A = Not Applicable
TOTAL = Total Dust
RESPIR. = Respirable Dust

FOR ADDITIONAL INFORMATION CALL: (920) 458-2127

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