

SAFETY DATA SHEET

PLENCO 01501



SDS No : POLYESTER
Date Revised : 01/13/2017
Revision No : 3

1. PRODUCT AND COMPANY IDENTIFICATION

GENERAL USE: Thermoset plastic molding compound
PRODUCT DESCRIPTION: Unsaturated polyester resin molding compound
CHEMICAL FAMILY: Unsaturated polyester polymer molding compound
GENERIC NAME: Thermoset polyester molding compound

MANUFACTURER

Plastics Engineering Company
3518 Lakeshore Road
Sheboygan, WI 53083

Emergency Phone: +(1) 920-458-2127

Customer Service: +(1) 920-458-2121

24 HR. EMERGENCY TELEPHONE NUMBERS

Only during NORTH AMERICAN transportation:
CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Sensitization, Category 1B
Target Organ Toxicity (Single exposure), Category 1
Target Organ Toxicity (Repeated exposure), Category 1

Physical:

Combustible Dust

GHS LABEL



Health
hazard



Exclamation
mark

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H317: May cause an allergic skin reaction.
H370: Causes damage to organs.
H372: Causes damage to organs through prolonged or repeated exposure.
H: May form combustible dust concentrations in air.

HNOC: HAZARDS NOT OTHERWISE CLASSIFIED OR NOT COVERED BY GHS:

Organic dust can form highly explosive mixtures when finely suspended in air. Avoid dust-laden atmospheres; minimize dust generation and accumulation. Eliminate sources of ignition, e.g. open flames, sparks or electrostatic discharge, or use explosion proof motors where needed.

PRECAUTIONARY STATEMENTS

Prevention:

P241: Use explosion-proof electrical and ventilating equipment.
P260: Do not breathe dust or vapors.
P264: Wash hands and forearms thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P281: Use personal protective equipment as required.

Response:

P302+P352: IF ON SKIN: Wash with plenty of water and soap.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313: IF exposed or concerned: Get medical advice/ attention.

P314: Get medical advice/attention if you feel unwell.

P321: Specific treatment: Wash affected areas immediately with plenty of water and soap.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

Storage:

P405: Store locked up.

Disposal:

P501: Dispose of contents and empty containers in accordance with local, regional and federal regulations.

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: HAZARD NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS:

Organic dust can form highly explosive mixtures when finely suspended in air. Avoid dust-laden atmospheres; minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dust does not accumulate on surfaces. Dry powders can build up static electric charges when subjected to the friction of transfer and mixing operations. Implement adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Eliminate all sources of ignition, e.g. open flames, sparks or electrostatic discharge, or use explosion proof motors where needed. Ensure that all areas where explosions could occur are designated appropriately. For recommendations to prevent such explosions and associated damage, consult applicable guidelines such as NFPA 68, "Standard on Explosion Protection by Deflagration Venting", NFPA 69, "Standard on Explosion Prevention Systems" and/ or NFPA 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids". For more information refer to Section #7 of this SDS.

POTENTIAL HEALTH EFFECTS

EYES: Contact may cause eye irritation.

SKIN: Contact may cause allergic skin reactions.

SKIN ABSORPTION: Skin absorption is unlikely to occur due to the physical form of the product.

INGESTION: May be harmful if swallowed.

INHALATION: Dust particles may cause respiratory tract irritation, coughing and wheezing.

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: Not known or believed to be a reproductive toxin.

TERATOGENIC EFFECTS: Not known or believed to be teratogenic.

CARCINOGENICITY: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.

MUTAGENICITY: Suspected of causing genetic defects.

MEDICAL CONDITIONS AGGRAVATED: Asthma, Respiratory disorders, Skin Allergies, and Eczema.

ROUTES OF ENTRY: Inhalation, ingestion and through skin contact.

IRRITANCY: Dust particles have the potential to cause mechanical irritation of skin and eyes.

SENSITIZATION: Contact may cause allergic skin reactions.

COMMENTS: Refer to Section 11 for detailed information on health effects and symptoms.

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, Personal Protective Equipment (PPE) 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.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Unsaturated polyester resin	20 - 40	
Proprietary Ingredient (12)	< 3	
glass, oxide, chemicals	0 - 30	65997-17-3
Carbon Black	0 - 12	1333-86-4
Graphite (natural)	0 - 40	7782-42-5

4. FIRST AID MEASURES

EYES: Immediately flush eyes with copious amounts of water for at least 15 minutes while lifting the eyelids. Seek medical attention if irritation occurs.

SKIN: Flush with large amounts of water for at least 10 minutes. Remove contaminated clothing. Seek medical attention if adverse effects occur.

INGESTION: If material is swallowed, seek immediately medical attention or advice. **DO NOT INDUCE VOMITING.** Never give anything by mouth to an unconscious person. If vomiting occurs, keep head below hips to prevent aspiration into lungs.

INHALATION: Move person to non-contaminated area or outside of the building. If breathing proves difficult, seek immediate medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Redness, burning sensation and tearing (watering) of the eyes.

SKIN: Skin dryness or irritation.

SKIN ABSORPTION: Skin absorption is unlikely to occur due to the physical form of the material.

INGESTION: No effects known.

INHALATION: Harmful if inhaled. If breathing is affected, immediately move to fresh air. Seek medical attention if headache, dizziness or visual problems develop. Administer oxygen if breathing difficulty persists.

ACUTE EFFECTS: None Expected.

CHRONIC EFFECTS: None Expected.

NOTES TO PHYSICIAN: If decomposition products are inhaled in a fire, symptoms may be delayed. The person exposed to fumes or decomposition products may need to be kept under medical surveillance.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Not classifiable as a flammable material.

FLAME PROPAGATION OR BURNING RATE OF SOLIDS: Product does not sustain fire or propagate flames.

GENERAL HAZARD: Avoid the generation or accumulation of dust as combustible particles can potentially form explosive mixtures with air.

EXTINGUISHING MEDIA: Dry Chemical, carbon dioxide (CO₂), alcohol resistant foam or water spray.

HAZARDOUS COMBUSTION PRODUCTS: Normal products of combustion, including carbon dioxide and carbon monoxide.

EXPLOSION HAZARDS: Clouds of flammable particles suspended in air may form explosive mixtures. Avoid the generation of dust/ air mixtures and remove any sources of ignition, e.g. flames, sparks, flares or electrostatic discharge.

SENSITIVE TO STATIC DISCHARGE: Electrostatic discharge may trigger a dust explosion if sufficient quantities of combustible particles are suspended in air.

SENSITIVITY TO IMPACT: Not Applicable

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: With shovel and scoop, place material into clean, dry container; move containers from spill area. Minimize airborne particulates. Use Personal Protective Equipment (PPE) to protect against inhalation of dust. Wear eye protection, gloves and avoid contact with skin.

LARGE SPILL: Use the same methods described for small spills. Place material into appropriate containers for disposal.

RELEASE NOTES: Inform the relevant authorities if the product has been discharged into the environment, e.g. sewers, waterways, soil or air.

SPECIAL PROTECTIVE EQUIPMENT: Not Established

7. HANDLING AND STORAGE

HANDLING: Use with adequate ventilation and utilize Personal Protection Equipment (PPE) if exposure limits are exceeded. Point source exhaust recommended to remove airborne dust particles during use. Avoid sources of ignition, e. g. heat, flames or electrostatic charges, or use explosion proof motors where needed. Avoid contact with eyes and repeated or prolonged contact with skin. Wash hands thoroughly after handling. Keep away from food or drinking water.

STORAGE: Store in original unopened or closed packaging, ideally at temperature less than 86°F (30°C) and under humidity control.

SPECIAL SENSITIVITY: Like most organic compounds this product is sensitive to strong oxidizing agents and may either decompose or ignite when mixed with same.

ELECTROSTATIC ACCUMULATION HAZARD: Point source exhaust recommended to remove dust particles evolved during handling or processing. Control build-up of dust and eliminate sources of ignition, e.g. open flames, sparks or electrostatic discharges, or use explosion proof motors where needed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
EXPOSURE LIMITS				
Chemical Name	Type		ppm	mg/m ³
Carbon Black	OSHA PEL	TWA		3.5
	ACGIH TLV	TWA		3.5
Graphite (natural)	OSHA PEL	TWA	15cf	
	ACGIH TLV	TWA		2

ENGINEERING CONTROLS: If the handling or processing of the resin generates dust, use ventilation to keep exposure to airborne particles below the permissible exposure limits. Monitoring of the workplace atmosphere may be required to ensure the effectiveness of the engineering controls and/ or the necessity to utilize Personal Protection Equipment (PPE).

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses with side shields are recommended. Snug-fitting goggles should be worn in dusty work environments.

SKIN: Wear protective clothing and chemical resistant gloves to prevent skin contact. Remove contaminated clothing immediately and wash thoroughly before reuse.

RESPIRATORY: If exposure limits are exceeded, use properly fitted respiratory protection equipment particularly selected for the prevailing conditions.

PROTECTIVE CLOTHING: Work gloves and skin protection are recommended for the handling of this product. Launder contaminated work clothing separate from regular laundry.

WORK HYGIENIC PRACTICES: Maintain a clean work environment and practice good hygiene. Wash hands, face and forearms

thoroughly after handling of this product, before eating or drinking and at the end of the work shift.

OTHER USE PRECAUTIONS: Not Available

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Sweet unique odor

APPEARANCE: Granular, pellet, or briquette

pH: Not Applicable

PERCENT VOLATILE: Not Applicable

FLASH POINT AND METHOD: Not Applicable

FLAMMABLE LIMITS: LEL: Dust. 0.030 oz. per cubic foot to UEL: No data

VAPOR PRESSURE: Not Applicable

VAPOR DENSITY: Not Applicable

BOILING POINT: Not Applicable

THERMAL DECOMPOSITION: Not Available

SOLUBILITY IN WATER: Negligible

EVAPORATION RATE: Not Applicable

SPECIFIC GRAVITY: See technical data sheet

OXIDIZING PROPERTIES: Not Applicable

10. STABILITY AND REACTIVITY

REACTIVITY: Stable

HAZARDOUS POLYMERIZATION: Should not occur.

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

CONDITIONS TO AVOID: Avoid storage at high temperatures or exposure to open flames.

POSSIBILITY OF HAZARDOUS REACTIONS: Like most organic compounds 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, including carbon dioxide and carbon monoxide.

INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizers as this may lead to violent reactions.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

DERMAL LD₅₀: No data available.

ORAL LD₅₀: No data available.

INHALATION LC₅₀: No data available.

RESPIRATORY OR SKIN SENSITISATION: May cause allergic skin reactions.

GERM CELL MUTAGENICITY: Suspected of causing genetic defects.

CARCINOGENICITY

NOTES: None Expected.

REPRODUCTIVE TOXICITY: None known.

STOT-SINGLE EXPOSURE: No data available.

STOT-REPEATED EXPOSURE: No data available.

GENERAL COMMENTS: This product may contain a small amount crystalline silica (quartz), as a natural occurring impurity in mineral. The mineral is encapsulated within the molding compound by resin. Significant exposure to free respirable quartz is not expected under normal conditions of use and processing of this product. Respirable quartz may be released by grinding, machining or abrading of this product. The NTP's Report on Carcinogens lists crystalline silica (respirable size) as a known human carcinogen. IARC concluded that there is sufficient evidence in humans for the carcinogenicity of inhaled (respirable) crystalline silica.

12. ECOLOGICAL INFORMATION

COMMENTS: [This section deliberately left blank]

13. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL: Avoid or minimize the generation of waste. Contact a licensed waste disposal contractor to manage the disposal of non-recyclable material.

GENERAL COMMENTS: Dispose of in compliance with local, state, federal and international regulations.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)**

PRIMARY HAZARD CLASS/DIVISION: Not hazardous

AIR (ICAO/IATA)

PRIMARY HAZARD CLASS/DIVISION: Not hazardous

15. REGULATORY INFORMATION**UNITED STATES****TSCA (TOXIC SUBSTANCE CONTROL ACT)**

Chemical Name	CAS
Proprietary Ingredient (12)	
glass, oxide, chemicals	65997-17-3
Carbon Black	1333-86-4
Graphite (natural)	7782-42-5

CALIFORNIA PROPOSITION 65

Chemical Name	Wt. %	Listed
Carbon Black	0 - 12	Cancer

16. OTHER INFORMATION

PREPARED BY: T. Olmsted **Date Revised:** 01/13/2017

REVISION SUMMARY: This SDS replaces the 08/03/2016 SDS.

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