

Safety Data Sheet

1. Identification

Identification of the substance

Product Code: Saffguard

Product Description: Corrugated sheeting in various colors

Use(s) of the substance: Product intended for use in a wide range of panel/sheet applications in graphics and packaging.

Restriction(s) on use of the substance: None known

Company Identification

SHISH INDUSTRIES LIMITED
Pipodra, Surat(Guj)
INDIA

Emergency Telephone

98251 90407

2. Hazard(s) Identification

PHYSICAL APPEARANCE: Polypropylene sheets that are translucent or in various colors

IMMEDIATE CONCERNS: When using or handling Saffguard sheets, as supplied, there are very low hazards.

OSHA Hazard Category: Combustible Dust

GHS Hazard Categories: Not classified

SIGNAL WORD: WARNING! This product as shipped is not classified as a combustible dust; however, a combustible concentration of dust may occur if fines are suspended in air (e.g. from cutting or sanding the Saffguard sheets).

PICTOGRAM: There is no pictogram for a combustible dust hazard.

Rough edges of Saffguard sheets could result in minor cuts to hands. Appropriate gloves should be worn to prevent cuts and/or scraps.

Avoid contact with strong oxidizing agents.

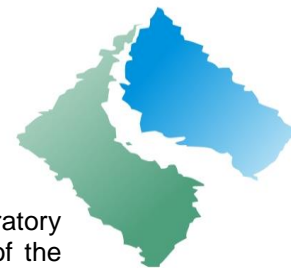
When working with the Saffguard sheets at temperatures above the melting point, the material may begin to decompose producing fumes that can contain carbon dioxide, carbon monoxide, ketones, acrolein, formaldehyde, aldehydes, oxides of nitrogen and other unidentified organic compounds that come from the breakdown of the materials used to make the sheets. Adequate ventilation should be provided to minimize exposures to vapors.

When cutting, shaping or modifying Saffguard sheets, other hazards may exist.

POTENTIAL HEALTH EFFECTS

Eyes: Dust from cutting may result and mechanically irritate the eyes; if using elevated temperatures, vapors may irritate eyes.

Skin: Cuts or scraps referenced above; if using elevated temperatures to soften the Saffguard sheets, exposure to molten resin may cause thermal burns.



Ingestion: Dust or debris from cutting may irritate the throat, mouth and stomach

Inhalation: Inhalation of fine dust, from cutting or sanding, may cause irritation of the respiratory system; inhalation of vapors from use of elevated temperatures may also cause irritation of the respiratory system.

Chronic: Inhalation of fine dust is a potential carcinogen situation from respirable particles of carbon black and/or titanium dioxide.



SIGNAL WORD: WARNING! Titanium dioxide and carbon black have been classified by IARC as Group 2B carcinogens, possible human carcinogens, when they are inhaled as dusts. If dusty conditions occur from these products (e.g. during cutting or sanding), AVOID breathing dusts. The permissible exposure limit (PEL) for titanium dioxide (respirable dust) is 5 mg/m³. The PEL for carbon black is 3.5 mg/m³.

3. Composition and Information on Ingredients

The primary composition of this product is polypropylene. This product contains a proprietary blend of components encapsulated within a polymer matrix. These components are not considered to be hazardous chemicals in the concentrations used per the OSHA HazCom Standard, 29 CFR 1910.1200. However, dusts containing titanium dioxide and carbon black are considered potential human carcinogens by IARC.

Chemical Name	CAS Number	Wt. %
Propylene/ethylene copolymer	9010-79-1	>95
Stabilizers/Additives/Colorants	trade secrets	<5
Titanium Dioxide	13463-67-7	0.1 – 2.0
Additional for Black Products: Carbon black	1333-86-4	0.1 – 2.0

4. First Aid Measures

The following applies should the Saffguard sheets be cut, sanded or otherwise processed which generates dust, debris or vapors.

Eye Contact: Wash immediately with plenty of water. If irritation persists, get medical attention.

Skin: For cuts and scrapes, get medical attention. If molten material comes in contact with the skin, Cool under ice water or a running stream of water. DO NOT attempt to remove the material from the skin. Removal could result in severe tissue damage. Get medical attention.

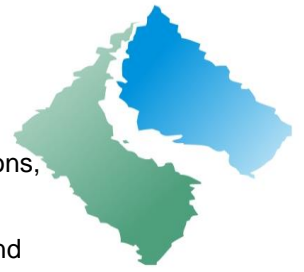
Ingestion: If swallowed, do not induce vomiting. Get medical attention.

Inhalation: Move to fresh air. If irritation persists or breathing difficult, get medical attention.

Fire Fighting Measures

Extinguishing Media: Foam, carbon dioxide (CO₂), water spray

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, ketones, acrolein, formaldehyde, aldehydes, oxides of nitrogen, unidentified organic compounds and other possible toxic combustion products.



Explosion Hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Special protective equipment for firefighters: Use self-contained breathing apparatus and full protective gear.

Sensitive to Static Discharge: Static discharge could be an ignition source for a combustible concentration of dust.

Sensitivity to Impact: Not Applicable

6. Accidental Release Measures

As supplied, the product presents no risk of spill or release.

GENERAL PROCEDURES: Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

7. Handling and Storage

GENERAL PROCEDURES: Keep away from heat, sparks and flame. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

HANDLING: If the product is cut or sanded, avoid exposure to dust and debris. Provide appropriate local ventilation at machinery and at places where dust can be generated. In addition, wear suitable respiratory equipment to avoid breathing dusts containing titanium dioxide and/or carbon black.

STORAGE: No special storage conditions are required. If multiple pallets of product are stacked, take appropriate measures to avoid leaning or tipping of pallets. This product may react with strong oxidizing agents and should not be stored near such materials. Store material in areas protected with automatic sprinklers.

STORAGE TEMPERATURE: 60°C Maximum

8. Exposure Controls and Personal Protection

ENGINEERING CONTROLS: Provide adequate room ventilation. Provide adequate ventilation in areas where vapors can be generated. Eliminate ignition sources in areas where dust where dust could be generated (e.g. cutting area). Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). It is recommended that all dust control equipment such as local exhaust ventilation contain explosion relief vents or an explosion suppression system

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Not required under normal handling and processing. Should conditions exist that require respiratory protection, for example while cutting or sanding generating dust respirator should be worn to avoid inhalation of dusts containing titanium dioxide and/or carbon black.

Eye Protection: When cutting or processing the product, wear safety glasses with side shields.

Body Protection: Wear protective gloves to avoid incidental cuts or scraps that could occur when handling the edges of product



9. Physical and Chemical Properties

Physical Form: corrugated sheets, also called twin wall or 3ply

Material Density:	0.90 to 0.96 g/cc (not product density)
Appearance:	Opaque or various colors
Odor:	None
Solubility in water:	Not applicable
Melting Point:	160°C
Boiling Point:	Not applicable
Flash Point:	Not applicable
Auto Ignition Temp:	570°C

10. Stability and Reactivity

CHEMICAL STABILITY: Stable

CONDITIONS TO AVOID: Do not store product near heat or flame. When cutting or sanding, minimize dust generation and accumulation. Avoid contact with strong oxidizing agents, strong alkaline agents and strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS: At elevated temperatures, the material will begin to decompose, producing vapors that can contain carbon monoxide, carbon dioxide, ketones, acrolein, formaldehyde, other aldehydes, oxides of nitrogen, other unidentified hydrocarbons and other possible toxic substances.

11. Toxicological Information

Acute Toxicity: Dust containing titanium dioxide and carbon black are considered nuisance dusts and are irritants to the upper airway system.

Repeated dose toxicity: No known chronic health effects

12. Ecological Information

Ecotoxicity: Polypropylene is an inert polymer and is believed to not to contribute to environmental toxicity.

Persistence and Degradability: The product is not readily biodegradable.

Bioaccumulative Potential: No information available.

Recyclability: High polypropylene content. Recycle code 5.

13. Disposal Considerations

DISPOSAL METHOD: (1) Recycle (reprocess).

(2) Incineration including energy recovery of waste material in a permitted facility in accordance with local, state or provincial and federal regulations.

(3) Landfilling in a licensed facility in accordance with local, state or provincial and federal regulations.