



MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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USA

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PRODUCT NAME: Roofing Membrane

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

In accordance with the definition in the OSHA Hazard Communication Standard, 29CFR 1910.1200 and the Canadian CPR, these products are considered manufactured articles. These product are a mixture of non-hazardous polymers with other components such as pigments, plasticizers, fillers and additives. All hazardous components present are bound in the polymer matrix and no exposure to these components occurs during normal conditions of use. A Material Safety Data Sheet is not required for this product unless it is heated to decomposition or processed in a manner that generates airborne dust under normal conditions of use.

SECTION 3: HAZARDS IDENTIFICATION

Vinyl sheeting or vinyl coated fabric in various colors.

EMERGENCY OVERVIEW

These product are non-hazardous vinyl sheeting or coated fabrics that present no health or physical hazards under normal conditions of use. The hazardous components in this product are not volatile and bound in a polymer matrix so exposure to these chemicals does not occur under normal conditions. Inhalation of dust or decomposition products from burning or heating may cause eye and respiratory irritation.

Potential Health Effects:

Primary Routes of exposure: Skin, Inhalation

Acute Hazards: None known or expected for exposure to product at ambient temperatures. Heating to decomposition by heat welding, cutting with hot wire, etc. may result in eye and respiratory irritation. Dust created from mechanical processing can cause abrasion irritation to the eyes and irritate the nose, throat and upper respiratory tract.

Chronic Hazards: None adverse effects are known or expected from exposure to product or dust that may be generated in mechanical processing. See Section 11 for additional health hazard information.

Medical Conditions Aggravated By Exposure: None currently known.

Carcinogen: These products contain antimony trioxide and crystalline silica. Antimony trioxide is classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (*Group 2B*). Respirable crystalline silica is classified by the International Agency for Research on Cancer (IARC) and the National Toxicology Program(NTP) as carcinogenic to humans (*Group 1*).

SECTION 4: FIRST AID MEASURES

None required under normal conditions. If irritation develops following inhalation of dust or fumes from processing, remove the victim from the area to fresh air. If symptoms persist, get prompt medical attention.

SECTION 5: FIREFIGHTING MEASURES

Flash Point: Not applicable

Flammability Limits: Not applicable

Extinguishing Media: Use any extinguishing media that is appropriate for the surrounding fire. These products are ordinary combustibles. Water is most effective.

Special Fire Fighting Procedures: Fight as any normal fire using SCBA and full protective clothing where exposed to smoke.

Unusual Fire and Explosion Hazards: None. These products are treated with fire retardants and are very difficult to ignite. They may burn under intense fire conditions. Dust from the polymers used in these products has a very low tendency to explode and treatment with fire retardants should further reduce the potential explosivity of the dust. However, as with any powdered organic material, precautions should be taken to prevent the accumulation of dust in processing areas and eliminate possible ignition sources.

Hazardous Decomposition Products: Thermal decomposition can yield carbon monoxide, carbon dioxide, hydrogen chloride, oxides of nitrogen, acetic acid, aliphatic and aromatic hydrocarbons and a very small amount of benzene and hydrogen cyanide. Hydrogen chloride, which is generated during combustion becomes an acid when dissolved in water. Hydrochloric acid corrodes many metals. Since this corrosion can be a slow process that can take place long after initial exposure, prompt cleaning of contaminated surfaces with water-based detergents is recommended.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Pick-up for reuse or disposal. No special precautions required.

SECTION 7: HANDLING AND STORAGE

Handling: Avoid inhalation of dust and fumes or vapors from decomposition.

Storage: No special storage required.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits: These products may contain the following components which have occupational exposure limits.

Component	Exposure Limit/Source
Calcium Carbonate	PEL – 15 mg/m ³ TWA (total dust), 5 mg/m ³ TWA (respirable dust) TLV- 10 mg/m ³ TWA (total dust)
Antimony Oxide	PEL – 0.5 mg/m ³ TWA TLV – 0.5 mg/m ³ TWA
Titanium Dioxide	PEL – 15 mg/m ³ TWA (total dust) TLV- 10 mg/m ³ TWA (total dust)
Crystalline Silica, Quartz	PEL – 10 mg/m ³ TWA (respirable dust) % Silica +2 TLV – 0.05 mg/m ³ TWA (respirable dust)

Definitions:

MSHA means Mine Safety and Health Administration.

OSHA means Occupational Safety & Health Administration.

PEL means OSHA Permissible Exposure Limit.

TLV means American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value.

TWA means time-weighted average.

Ventilation: No special ventilation required for handling product. Increased general ventilation or local exhaust may be needed if dust or fumes are generated in processing.

Respiratory Protection: None normally required. If processing generates dust or fumes and engineering controls are not available to control the exposures, appropriate respiratory protection may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

Skin Protection: None normally required.

Eye Protection: None normally required. Follow facility requirements.

Other Protective Equipment: None normally required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Vinyl sheeting or vinyl coated fabric in various colors.

Boiling Point: Not applicable

Specific Gravity: Not applicable

Melting Point: Not applicable

Water Solubility: Insoluble

Vapor Pressure: Not applicable

Vapor Density: Not applicable

Flash Point (Method Used): Not applicable

Autoignition Temp: Not determined

Flammable Limits: LEL: Not applicable

UEL: Not applicable

pH: Not applicable

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable

Incompatibility/Conditions to Avoid: Avoid contact with strong oxidizers..

Hazardous Polymerization: Will not occur.

Hazardous Decomposition: Thermal decomposition can yield carbon monoxide, carbon dioxide, hydrogen chloride, oxides of nitrogen, acetic acid, aliphatic and aromatic hydrocarbons and a very small amount of benzene and hydrogen cyanide. Prolonged heating (approximately 30 minutes or more) above 200°C (392°F) or short term heating at 250°C (482°F) may result in rapid evolution of hydrogen chloride and carbon monoxide. Carbon monoxide is a colorless and odorless toxic gas and hydrogen chloride is an irritant.

SECTION 11: TOXICOLOGICAL INFORMATION

These products are biologically inert, vinyl sheeting or coated fabrics which are non-toxic under normal conditions.

The hazardous components in this product are not volatile and bound in a polymer matrix so exposure to these chemicals does not occur under normal conditions. The chronic health effects listed below from exposure to the hazardous components are provided for informational purposes but are not expected to occur in the normal use or foreseeable misuse of these products. Prolonged skin exposure to antimony compounds may cause irritation or dermatitis. Prolonged or repeated overexposure to antimony may damage the nervous system, lung, liver and heart muscle. Some boron compounds have demonstrated adverse effects on fertility and fetal development in studies with laboratory animals. Prolonged inhalation of respirable crystalline silica may cause a progressive, disabling lung disease, silicosis, and increase the risk of lung cancer.

SECTION 12: ECOLOGICAL INFORMATION

These products are inert solids. They are not expected to present any hazard to the environment under normal conditions.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: These products are not classified as hazardous waste under US EPA RCRA regulations. If uncontaminated, dispose as normal solid waste. If contaminated, dispose in accordance with all applicable local, state/provincial and federal regulations in light of the contamination present. Local regulations

may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

SECTION 14: TRANSPORT INFORMATION
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U.S. DOT HAZARD CLASSIFICATION

Proper Shipping Name: Not Regulated
Technical Name: Not applicable
UN Number: Not applicable
Hazard Class/Packing Group: Not applicable
Labels Required: None

SECTION 15: REGULATORY INFORMATION

EPA SARA 311 Hazard Classification: Not Applicable

EPA SARA 313 Chemicals: These products contain the following chemicals listed under SARA 313, however, would normally be covered by the article exemption and not subject to reporting:

Zinc Compound	1-5%
Antimony Compound	1-5%

Hazardous Substance (40CFR 116) CERCLA: Antimony oxide

Reportable Quantity: 1000 lbs.

EPA Toxic Substances Control Act (TSCA) Status: This product is a manufactured article and is exempt from TSCA regulations.

INTERNATIONAL REGULATIONS:

Canadian WHMIS Classification: Not a controlled product.

Canadian DSL: This product is a manufactured article and is exempt from CEPA regulations.

EINECS: This product is a manufactured article and is exempt from chemical registration requirements.

STATE REGULATIONS:

California Proposition 65: These products may contain the following chemicals regulated under California Proposition 65, however, these chemicals are bound in a polymer matrix so exposure to these chemicals does not occur under normal conditions. Antimony trioxide 1-10%, Crystalline silica 0-0.2%, Lead <0.005%, Arsenic <0.008%.

16: OTHER INFORMATION

NFPA Hazard Rating: Health: 0 Fire: 1 Reactivity: 0

HMIS Hazard Rating: Health: 0 Fire: 1 Reactivity: 0

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