

**MATERIAL SAFETY
DATA SHEET**

REEF INDUSTRIES, INC.
9209 Almeda Genoa Road
Houston, Texas 77075

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EMERGENCY TELEPHONE NO.: (713) 507-4200

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PRODUCT NAME: **PERMALON (X-100, X-150, X-210)**

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

SECTION I PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: Polyethylene
CHEMICAL FAMILY: Polyethylene and polyethylene copolymers
DOT HAZARD CLASSIFICATION: Not Regulated

SECTION II HAZARDOUS INGREDIENTS

If present, IARC, NTP and OSHA carcinogens and chemicals subject to the reporting requirements of SARA Title III Section 313, are identified in this section. See definition page for clarification.

INGREDIENT: None % BY WEIGHT: PEL: STEL: NOTE: D.N.A.
NOTES:

SECTION III PHYSICAL DATA

BOILING POINT (TCC): N/A
FREEZING/MELTING POINT: 257⁰ C
VAPOR PRESSURE: N/A
SPECIFIC VAPOR DENSITY: Air = 1 N/A
SPECIFIC GRAVITY: Product 0.92-0.94 g/cm³
SOLUBILITY IN WATER: Insoluble
APPEARANCE AND ODOR: Odorless plastic reinforced laminate
PER CENT VOLATILE: < 1
EVAPORATION RATE: n-BuAc = 1 N/A

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TCC): N/A
EXPLOSIVE LIMIT - LOWER (LEL): N/A
EXPLOSIVE LIMIT - UPPER (UEL): N/A
EXTINGUISHING MEDIA: Water, Carbon Dioxide, Foam, Dry Chemical
HAZARDOUS DECOMPOSITION PRODUCTS: Combustion products similar to other organic materials producing mainly carbon dioxide, water and carbon monoxide.
SPECIAL PROCEDURES: Self-Contained Breathing Apparatus recommended and full protective clothing.
FIREFIGHTING PROCEDURES: Standard
SPECIAL FIRE AND EXPLOSION HAZARDS: N/A
NFPA CODES: HEALTH - 0 FLAMMABILITY - 0 REACTIVITY - 0

SECTION V HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: N/A
THRESHOLD LIMIT VALUE (TLV): N/A SEE SECTION II
EFFECTS OF ACUTE OVEREXPOSURE: None
Eyes: None
Skin: None
Inhalation: None
Ingestion: None

PRODUCT NAME: **PERMALON (X-100, X-150, X-210)**

SECTION V HEALTH HAZARD DATA (continued)

EFFECTS OF CHRONIC OVEREXPOSURE: None
 Eyes
 Skin
 Inhalation
 Ingestion

SECTION VI REACTIVITY DATA

HAZARDOUS POLYMERIZATION: Will not occur
 STABILITY: Stable
 INCOMPATIBILITY: Strong oxidizing agents

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN THE EVENT OF A LEAK OR SPILL: Collect and remove, no special precautions required.
 SMALL SPILL:
 LARGE SPILL:
 WASTE DISPOSAL METHOD: Refer to local regulations
 SMALL SPILL:
 LARGE SPILL:

SECTION VIII PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: N/A
 VENTILATION: N/A
 PROTECTIVE GLOVES: N/A
 EYE PROTECTION: Goggles
 OTHER PROTECTIVE EQUIPMENT: None required

SECTION IX SPECIAL PRECAUTIONS - OTHER COMMENTS

GOOD INDUSTRIAL PRACTICE IS RECOMMENDED THROUGHOUT THE HANDLING AND PROCESSING OF THESE PRODUCTS, AS IS CUSTOMARY AND APPROPRIATE FOR THE OPERATION BEING PERFORMED.

SECTION X TRANSPORTATION REGULATORY REQUIREMENTS

D.O.T PROPER SHIPPING NAME; NOT REGULATED BY D.O.T.
 OTHER REGULATORY CONTROLS: NONE FOUND

SECTION XI CLASSIFICATION/LABEL

SARA HEALTH HAZARDS:
 ACUTE: NO CHRONIC: NO FLAMMABILITY: NO PRESSURE: NO REACTIVITY: NO

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DEFINITIONS

SECTION I PRODUCT IDENTIFICATION

General or generic ID: Chemical family or product description.
D.O.T. hazard classification: Product meets D.O.T. criteria for hazards listed.

SECTION II COMPONENTS

Components are listed in this section if they are present a physical and/or health hazard and are present at or above 1% the mixture. If a component is identified as a carcinogen by HTP, IARC or OSHA as of the date on the MSDS, it will be listed and footnoted in this section when present at, or above 0.1% in the product. Negative conclusions concerning carcinogenicity are not reported. Additional health information may be found in Section V. Components subject to the reporting requirements of Section 313 of SARA Title III are identified in the footnotes in this section, along with typical percentages. Other components may be listed if deemed appropriate.

Exposure recommendations are for components. OSHA Permissible Exposure Limits (PELs) and American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) appear on the line with the component identification. Other recommendations appear as footnotes.

SECTION III PHYSICAL DATA

BOILING POINT: Of product. The lowest value of the components is listed for mixtures.
VAPOR PRESSURE: Of product. The highest value of the components is listed for mixtures.
SPECIFIC VAPOR DENSITY: AIR=1. If unknown, the Specific Vapor Gravity will be listed as less than or greater than water.
pH: if applicable.
PERCENT VOLATILES: Percentage of material with initial boiling point below 425 degrees Fahrenheit.
EVAPORATION RATE: Indicated as faster or slower than Ethyl Ether, unless otherwise indicated.

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Method identified.
EXPLOSION LIMIT: For product if known. The lowest value of the components is listed for mixtures.
EXTINGUISHING MEDIA: Following National Fire Protection Association criteria.
HAZARDOUS DECOMPOSITION PRODUCTS: Known or expected hazardous products resulting from heating, burning or other reactions.
FIREFIGHTING PROCEDURES: Minimum equipment to protect firefighters from toxic products of vaporization, combustion or decomposition in fire situations. Other firefighting hazards may also be indicated.
SPECIAL FIRE AND EXPLOSION HAZARDS: States hazards not covered by other sections.
NFPA CODES: Hazard ratings assigned by the National Fire Protection Association.

SECTION V HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL (PEL): For product.
THRESHOLD LIMIT VALUE (TLV): For product.
EFFECTS OF ACUTE OVEREXPOSURE: Potential local and systemic effects due to single or short term overexposure to the eyes and skin or through inhalation or ingestion.
EFFECTS OF CHRONIC OVEREXPOSURE: Potential local and systemic effects due to repeated or long term overexposure to the eye and skin or through inhalation or ingestion.

SECTION VI REACTIVITY DATA

HAZARDOUS POLYMERIZATION: Conditions to avoid to prevent hazardous polymerization resulting in a large release of energy.
STABILITY: Conditions to avoid to prevent hazardous or violent decomposition.
INCOMPATIBILITY: Materials and conditions to avoid to prevent hazardous reactions.

SECTION VII SPILL OR LEAK PROCEDURES

Reasonable precautions to be taken and methods of containment, clean-up and disposal. Consult Federal, State and Local regulations for accepted procedures and reporting notification requirements.

SECTION VII PROTECTIVE EQUIPMENT TO BE USED

Protective equipment which may be needed when handling the product.

SECTION IX SPECIAL PRECAUTIONS - OTHER COMMENTS

Covers any relevant points not previously mentioned.