

MATERIAL SAFETY DATA SHEET
JG SUMMIT PETROCHEMICAL CORPORATION

SECTION 1. CHEMICAL AND COMPANY IDENTIFICATION

PRODUCT NAME : EVALENE® LLDPE/HDPE

CHEMICAL NAME : Linear Low Density Polyethylene/High Density Polyethylene

CHEMICAL FAMILY : Polyolefin

CONTACT ADDRESS: JG Summit Petrochemical Corporation
Barangay Simlong, Batangas City, Philippines 4200

EMERGENCY TELEPHONE NUMBER:
063 43 300 – 8000 local 1111/1112
Safety Department

SECTION 2. COMPOSITION /INFORMATION ON INGREDIENTS

Hazardous Components : None Butene Copolymer - CAS No: 25087-34-7
Hexene Copolymer- CAS No: 25213-02-09

Composition : 97 – 99% polyethylene;
1 - 3% additives

Percent Volatiles By Volume : Nil

Density : 916 – 965 kg/m³

Melting Temperature : 119°C – 126°C Linear Low Density Polyethylene;
129°C – 133°C High Density Polyethylene

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview: This material is NOT HAZARDOUS by OSHA Hazard
Communication definition.

Signal Word : CAUTION!

Hazards : Dust may form explosive mixtures with air. Molten polymer may cause thermal burns. Irritating fumes may be produced at process temperatures.

FLASHPOINT : 341°C, but thermal degradation starts at 290°C

FLAMMABLE LIMITS : Not Applicable

AUTO-IGNITION TEMPERATURE: Generally 330°C - 410°C depending on individual product composition.

GENERAL HAZARD : Solid material, may burn at or above the flashpoint, and airborne dust may explode if ignited. Toxic gases will form upon combustion. Static Discharge, material can accumulate static charges which can cause an incendiary discharge.

POTENTIAL HEALTH EFFECTS

EYE CONTACT : Particulates may scratch eye surface / cause mechanical abrasion. If the material is heated, thermal burns may result from eye contact. Not expected to cause prolonged or significant eye irritation.

SKIN CONTACT : Negligible hazard at ambient temperatures (-18 – 38 °C: 0 – 100 °F) Hot solid may cause thermal burns

INHALATION : Negligible hazard at ambient temperature (-18 – 38 °C: 0 – 100 °F). Vapors and /or aerosols, which may be formed at, elevated temperatures maybe irritating to eyes and respiratory tract. Inhalation of process fumes and vapors may cause soreness in the nose and throat and coughing. Exposure to high concentrations of dust may cause slight respiratory irritation by mechanical action.

INGESTION : Essentially non-toxic Ingestion is not a likely route of exposure.

OTHER HEALTH EFFECTS: Treat fines and dust as nuisance particulates. Avoid breathing dust and processing fumes.

Dust causes eye irritation, experienced as stinging and discomfort or pain.

Molten or hot polymer will cause thermal burns.

Chronic Health Effects: No known chronic health effects.

Conditions aggravated by exposure:
This material aggravates no known conditions.

Environmental hazards: Based on the available data of this product no available hazardous properties are known.

SECTION 4. FIRST AID MEASURES

EYE CONTACT : This product is an inert solid. In case of dust contact with eye(s), flush eyes thoroughly with clean water for several minutes. Remove contact lenses, if worn. Seek medical advice if irritation persists.

SKIN CONTACT : For thermal skin burns, remove clothing, any jewelry, and gross debris from the burned area. Leave blisters intact. Wash the area thoroughly with room temperature tap water. Do not use ice. Cover the wounded area with gauze dressing moistened with cool water; keep the dressing moist. Seek medical attention. No attempt should be made to remove material from skin or to remove contaminated clothing as damaged flesh can be easily torn.

INHALATION : In case of adverse exposure to vapors and /or aerosols formed at elevated temperatures, immediately remove the affected victim from exposure. Administer artificial respiration if breathing stopped. Keep at rest. Call for prompt medical attention.

INGESTION : First aid normally not required. (See Section X for Additional Information)

SECTION 5. FIRE-FIGHTING MEASURES

FIRE FIGHTING : Use water spray to cool fire-exposed surfaces, protect personnel, and extinguish the fire. For large fire, use all purpose-type foams by manufacturer's recommended

techniques. Use Carbon Dioxide or dry chemical media for small fires. Use approved self-contained breathing apparatus and other protective equipment and/or if conditions warrant. Do not direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Avoid accumulation and dispersion of dust in air to reduce potential for dust ignition/explosions.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS:

Oxygen-lean conditions may produce carbon monoxide and irritating smoke.

SECTION 6. ACCIDENTAL RELEASE MEASURES

LAND SPILL : Carefully sweep up or vacuum and transfer to a dry container. Recover spillage for recycling or disposal. To prevent littering, avoid releases to surface waters. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

WATER SPILL : Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations. Recover the spilled material and place in suitable containers for recycling or disposal.

WASTE DISPOSAL METHOD:

When disposed of, this product is not considered a RCRA hazardous waste. Dispose of in accordance with local regulations.

CAUTION : Polyethylene pellets on floors are slippery and may create slipping hazard

SECTION 7. STORAGE AND HANDLING

ELECTROSTATIC ACCUMULATION HAZARD : Electrostatic charge may build up during handling. Use proper grounding procedures.

STORAGE TEMPERATURE, °C : Ambient

STORAGE / TRANSPORT PRESSURE, mmHg : Atmospheric

LOADING/UNLOADING TEMPERATURE, °C : Ambient

STORAGE AND HANDLING : Keep container closed. Handle and open containers with care. Store in a cool, dry well-ventilated place away from incompatible materials. DO NOT handle or store near an open flame, heat or other sources of ignition. Protect material from direct sunlight.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROLS: Local exhaust ventilation of process equipment is recommended for control of airborne dusts, fumes, and vapor, particularly in confined areas. Use NIOSH-approved respirator if unable to control dust, fumes, and vapor.

PERSONAL PROTECTION: For open systems at ambient temperature (18 to 38 degrees C) where contact is likely, wear safety glasses with the side shields. Where contact may occur with hot material, wear thermal resistant gloves, arm protection, and a face shield.

WORKPLACE EXPOSURE GUIDELINES: OSHA regulation 29CFR1910.1000 requires the following permissible exposure limits: 5mg/m³ (respirable dust), and 15mg/m³ (total dust) based on the OSHA PEL for nuisance dust.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form	:	Pellets/Granules
Color	:	Translucent white
Odor	:	Odorless
Odor Threshold	:	No value available
SPECIFIC GRAVITY at 23 °C	:	0.91 - 0.94
MELTING TEMPERATURES, °C	:	~ 115 C
CRYSTALLINITY	:	Low crystallinity (50 – 60% crystalline)
SOLUBILITY IN WATER, wt.% at °C:	:	Insoluble
VAPOR PRESSURE, mmHg at °C	:	not applicable
BOILING POINT, °C	:	not applicable

VISCOSITY OF LIQUID, cSt at ⁰C : not applicable
EVAPORATON RATE : not applicable

SECTION 10. STABILITY AND REACTIVITY

STABILITY : chemically inert, insoluble at room temperature in most solvents. Good resistance to acids and alkalis. Exposure to light and oxygen results in loss of strength and loss of tear resistance

CONDITION TO AVOID INSTABILITY:

Temperatures over 300⁰C may cause resin degradation.

HAZARDOUS POLYMERIZATION:

Will not occur

CONDITION TO AVOID HAZARDOUS POLYMERIZATION:

Not applicable

MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY:

Strong oxidizing agents such as chlorates, nitrates, peroxides, etc.

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition products may include simple hydrocarbons such as methane and propane, carbon monoxide, carbon dioxide, aldehydes and other organic vapor. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute over-exposure to the decomposition products may result in headache, nausea, and irritation of the eyes, skin, and respiratory tract.

SECTION 11. TOXICOLOGICAL INFORMATION

No toxicological data available

Please refer to Section 3 for available information on potential health effects.

SECTION 12. ECOLOGICAL INFORMATION

No data is available on the adverse effects of this product to the environment. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory reporting information.

SECTION 13. DISPOSAL CONSIDERATIONS

Refer to Section 5, 6 and 15 for disposal and regulatory information

Do not dump into any sewer, on the ground, or into any body of water. All disposal practices must be in compliance with all local laws and regulations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

SECTION 14. TRANSPORT INFORMATION

Department of Transportation (DOT) : This product is not DOT regulated.

SECTION 15. REGULATORY INFORMATION

All the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS)

SECTION 16. OTHER INFORMATIONS

NFPA RATINGS : Health : 0 Flammability : 1 Reactivity : 0 Special :NA

(0 - Least, 1 - Slight, 2 - Moderate, 3 - High, 4 – Extreme, PPE: personal Protection Equipment Index recommendation,*- Chronic effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA).

Other Precautions : Pneumatic conveying of this product can generate fines and dust particles that can, under certain conditions pose an explosion hazard. We recommend that the conveying system used be: (1) Equipped with filters of adequate size, (2) Operated and maintained in such a manner to ensure that no leaks develop and (3) Adequately grounded. We further

recommend good housekeeping be practiced throughout the facility.

Notice to reader:

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.
