TRADEASIA INTERNATIONAL PTE LTD
133 Cecil Street # 12-03 Keck Seng Tower, Singapore 069535,
Republic Of Singapore
Tel. +65 6227 6365 - **Fax**. +65 6225 6286
www.tradeasia.com

Material Safety Data Sheet
High Density Polyethylene (HDPE)

Section 1: Chemical Product and Company Identification

Product Name : High Density Polyethylene (HDPE)
Chemical Formula : $H(CH_2CH_2)_nH$
Company Identification : Tradeasia International Pte Ltd
Email : contact@chemtradeasia.com

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS#	% by Weight
High Density Polyethylene	9002-88-4	>99

Toxicological Data on Ingredients: ORAL (LD50): Acute: > 5,000 mg/kg [Mouse]

Section 3: Hazards Identification

Potential Acute Health Effects: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. May cause choking if swallowed. Based on physical properties, not likely to be an aspiration hazard. No adverse effects anticipated by skin absorption. No adverse effects are anticipated from single exposure to dust. Vapors released during thermal processing may cause respiratory irritation. Solid or dust may cause irritation or corneal injury due to mechanical action. Elevated temperatures may generate vapor levels sufficient to cause eye irritation. Effects may include discomfort and redness. Prolonged contact is essentially non irritating to skin. Mechanical injury only. Under normal processing conditions, material is heated to elevated temperatures; contact with the material may cause thermal burns. Did not cause allergic skin reactions when tested in guinea pigs.

Potential Chronic Health Effects: Not applicable.

Section 4: First Aid Measures

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact: Generally the product does not irritate the skin. Wash off with soap and plenty of water.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Exposure to elevated temperatures can cause product to decompose.

Auto-Ignition Temperature: Not available

Flash Points: Not available

Flammable Limits: Not available

Products of Combustion: These products are carbon oxides (CO, CO_2).

Fire Hazards in Presence of Various Substances: Exposure to elevated temperatures can cause product to decompose.

Explosion Hazards in Presence of Various Substances: Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, do not permit dust to accumulate. Dense smoke is emitted when burned without sufficient oxygen.

Fire Fighting Media and Instructions: Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. If material is molten, do not apply direct water stream. Use fine water spray or foam. Cool surroundings with water to localize fire zone. Hand held dry chemical or carbon dioxide extinguishers may be used for small fires.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Spilled material may cause a slipping hazard. Use appropriate safety equipment.

Large Spill: Contain spilled material if possible. Sweep up. Collect in suitable and properly labeled containers.

Section 7: Handling and Storage

Precautions: Keep locked up. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. Do not ingest. Do not breathe dust. Wear

suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Personal Protection:
Eye/Face Protection: Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. If exposure causes eye discomfort, use a full-face respirator.

Skin Protection: No precautions other than clean body-covering clothing should be needed.

Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized. Use gloves to protect from mechanical injury. Selection of gloves will depend on the task. Use gloves with insulation for thermal protection (EN 407), when needed.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. Use an approved air-purifying respirator when vapors are generated at increased temperatures or when dust or mist is present. Use the following CE approved air-purifying respirator: When dust/mist are present use a/an Particulate filter, type P2. When combinations of vapors, acids, or dusts/mists are present use a/an Organic vapor cartridge with a particulate pre-filter, type AP2.

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance : Solid
Odor : Not available.
Taste : Not available.
Molecular Weight : Not applicable
Color : White
pH (1% soln./water) : Not available.
Boiling Point : Not available.
Melting Point : 109 - 111 °C (228 - 232 °F)
Critical Temperature : Not available.
Specific Gravity : Not available.
Vapor Pressure : Not applicable.
Vapor Density : Not available.
Volatility : Not available.
Odor Threshold : Not available.
Water/Oil Dist. Coeff. : Not available.
Ionicity (in Water) : Not available.
Dispersion Properties : Not available.
Solubility : Not available.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Strong oxidizing agents

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available

Polymerization: Will occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: ORAL (LD50): Acute: > 5,000 mg/kg [Mouse]

Chronic Effects on Humans: Not applicable

Other Toxic Effects on Humans: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. May cause choking if swallowed. Solid or dust may cause irritation or corneal injury due to mechanical action. Elevated temperatures may generate vapor levels sufficient to cause eye irritation. Effects may include discomfort and redness. Prolonged contact is essentially non irritating to skin. Mechanical injury only. Under normal processing conditions, material is heated to elevated temperatures; contact with the material may cause thermal burns.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not applicable.

Special Remarks on other Toxic Effects on Humans: Not applicable.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: This water-insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

Toxicity of the Products of Biodegradation: Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not available.

Identification: Not available.

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations: Not available.

Other Regulations: OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. EINECS: This product is a polymer according to the definition in Directive 92/32/EEC (7th Amendment to Directive 67/548/EEC)

and all of its starting materials and intentional additives are listed in the European Inventory of Existing Commercial Chemical Substances (EINECS) or in compliance with European (EU) chemical inventory requirements.

Other Classifications:
WHMIS (Canada): Not available.

DSCL (EEC): Not available.

HMIS (U.S.A.):
Health Hazard: 0
Fire Hazard: 0
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):
Health: 0
Flammability: 0
Reactivity: 0

Specific hazard:
Protective Equipment: Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Tradeasia International Pte. Ltd. Be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Tradeasia International Pte. Ltd. has been advised of the possibility of such damages.