

MATERIAL SAFETY DATA SHEET

Product Line: Bags on rolls, produce bags, flat bags, twist ties

SECTION I – Chemical Product and Company Identification

PRODUCT

Product Name: HIGH DENSITY POLYETHYLENE - Grades not designated by HD or HDP prefix

Product Description: HDPE without polymer processing aid, see Section XVI for applicable grades.

Product Code:

Intended Use: Coatings, Extrusion and molding, Film

COMPANY IDENTIFICATION

Supplier:

ExxonMobil Chemical Asia Pacific (Regn. No.52893724C)

(A DIVISION OF EXXONMOBIL ASIA PACIFIC PTE LTD - REGN. NO. 196800312N)

Polyolefins

24 Hour Environmental / Health Emergency

Day Emergency: +65 6885 8339 / Night Emergency:

Telephone

+65 9862 0661

Supplier General Contact

+65 6885 8339

This (M)SDS is a generic document with no country specific information included.

SECTION II – Composition / Information on Ingredients

No Reportable Hazardous Substance(s) or Complex Substance(s).

Note: The product may contain varying levels of additives such as slip and anti-blocking agents, antioxidants and stabilizers.

SECTION III – Hazards Identification

This material is not considered to be hazardous according to regulatory guidelines see Section XV.

PHYSICAL/CHEMICAL HAZARDS

High dust levels may create potential for explosion. Spilled pellets present a slipping hazard on hard surfaces. Contact with hot material can cause thermal burns which may result in permanent damage. Material can accumulate static charges which may cause an incendiary electrical discharge.

Health Hazards

Material is essentially non-toxic. However, if dust is generated, it may scratch the eyes and cause minor irritation to the respiratory tract. When heated, the vapor/fumes given off may cause respiratory tract irritation.

SECTION IV – First-aid Measures

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 is stopped. Keep at rest.

SKIN CONTACT

For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

No adverse effects due to ingestion are expected.

FRM 0276 Rev. N/C

SECTION V – Fire Fighting Measures

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: Straight streams of water

FIRE FIGHTING

Fire Fighting Instructions: Assure an extended cooling down period to prevent re-ignition. Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: High dust levels may create potential for explosion.

Hazardous Combustion Products: Smoke, Fume, Incomplete combustion products, Oxides of carbon, Flammable hydrocarbons

FLAMMABILITY PROPERTIES

Flash Point [Method]: N/A

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Auto ignition Temperature: N/A

SECTION VI – Accidental Release Measures

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

SPILL MANAGEMENT

Land Spill: Spilled pellets present a slipping hazard on hard surfaces.

Small Dry Spills: With clean shovel, place material into clean, dry container and cover loosely; move containers from spill area.

Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Skim from surface

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted.

Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas.

For Large Spills: Cover spill with plastic sheet or tarpaulin to minimize spreading.

SECTION VII – Handling and Storage

HANDLING

Avoid elevated temperatures for prolonged periods of time. Prevent small spills and leakage to avoid slip hazard. Avoid conditions which create dust. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Material can accumulate static charges which may cause an electrical spark (ignition source). Care should be taken when storing and handling this product. Apart from the specific nature of the polymer product, conditions such as humidity, sunlight and temperature have an influence on the way the product behaves during storage and handling. Special attention should be paid to avoid inappropriate stacking of palletized bags or other package units. Indeed, polymer products may be dimensionally unstable under certain conditions. Avoid conditions generating heat during transfer operations.

Loading/Unloading Temperature: [Ambient]

Transport Temperature: [Ambient]

Transport Pressure: [Ambient]

FRM 0276 Rev. N/C

Static Accumulator: This material is a static accumulator.

STORAGE

Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames and high temperatures.

Storage Temperature: [Ambient]

Storage Pressure: [Ambient]

Suitable Containers/Packing: Bulk Containers; Hopper Cars; Bags; Boxes; Drums; Octatainer; Silos

Suitable Materials and Coatings: Aluminum; Polyethylene Bags

SECTION VIII – Exposure Controls / Personal Protection

Exposure limits/standards for materials that can be formed when handling this product: For dusty conditions, ACGIH recommends for insoluble and poorly soluble particles not otherwise specified an 8-hour TWA of 10 mg/m³ (inhalable particles), 3 mg/m³ (respirable particles). Product may also contain varying levels of additives, such as slip and antiblocking agents (talc or silica), antioxidants, stabilizers, and corrosion inhibitors. Certain grades may contain cristobalite, a form of crystalline silica, as an additive that is encapsulated in the polymer. Inhaled crystalline silica in an occupational environment is recognized as a known human carcinogen. However, the potential for release of silica to the air when this polymer is handled has been assessed and the encapsulated silica within the polymer is not expected to pose a health hazard when processed under normal conditions of use.

Note: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Adequate ventilation should be provided so that exposure limits are not exceeded.

SPECIAL PRECAUTIONS: Should significant vapors/fumes be generated during thermal processing of this product, it is recommended that work stations be monitored for the presence of thermal degradation by-products which may evolve at elevated temperatures (for example, oxygenated components). Processors of this product should assure that adequate ventilation or other controls are used to control exposure. It is recommended that the current ACGIH-TLVs for thermal degradation by-products be observed. Contact your local sales representative for further information.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Half-face filter respirator

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

If product is hot, thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data.

The types of clothing to be considered for this material include:

If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections VI, VII, XII, XIII.

SECTION IX – Physical and Chemical Properties

Typical physical and chemical properties are given below. Consult the Supplier in Section I for additional data.

GENERAL INFORMATION

Physical State: Solid

Form: Pellet, granule, powder

Color: Clear to Opaque, White to Off-White

Odor: None to Mild

Odor Threshold: N/A

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density: 0.94 - 0.97

Bulk Density: 0.4 g/cc at 20 °C - 1 g/cc at 20 °C

Flash Point [Method]: N/A

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Auto ignition Temperature: N/A

Boiling Point / Range: N/A

Vapor Density (Air = 1): N/A

VAPOUR PRESSURE: [Negligible]

Evaporation Rate (N-Butyl Acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: N/A

Oxidizing properties: See Sections III, XV, XVI.

OTHER INFORMATION

Freezing Point: N/D

Melting Point: 120°C (248°F) - 140°C (284°F)

Molecular Weight: > 25000

Hygroscopic: No

SECTION X – Stability and Reactivity

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Avoid elevated temperatures for prolonged periods of time.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION XI – Toxicological Information**ACUTE TOXICITY**

Route of Exposure	Conclusion / Remarks
Inhalation	

FRM 0276 Rev. N/C

Toxicity: Data available.	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: Data available.	Negligible hazard at ambient/normal handling temperatures. Based on test data for structurally similar materials.
Ingestion	
Toxicity: Data available.	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Toxicity: Data available.	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: Data available.	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
Eye	
Irritation: Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

CHRONIC/OTHER EFFECTS

For the product itself:

Dust may be irritating to the eyes and respiratory tract. Elevated temperatures or mechanical action may form vapors, mists or fumes which may be irritating to the eyes and respiratory tract. Additional information is available by request.

IARC Classification:

The Following Ingredients are Cited on the Lists Below: None.

--REGULATORY LISTS SEARCHED--

1 = IARC 1

2 = IARC 2A

3 = IARC 2B

SECTION XII – Ecological Information

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

Material -- Not expected to be harmful to terrestrial organisms.

MOBILITY

Material -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Material -- Expected to be persistent.

Hydrolysis:

Material -- Transformation due to hydrolysis not expected to be significant.

Photolysis:

Material -- Transformation due to photolysis not expected to be significant.

Atmospheric Oxidation:

Material -- Transformation due to atmospheric oxidation not expected to be significant.

BIO-ACCUMULATION POTENTIAL

Material -- Potential to bio-accumulate is low.

SECTION XIII – Disposal Considerations

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Suitable routes of disposal are supervised incineration, preferentially with energy recovery, or appropriate

FRM 0276 Rev. N/C

recycling methods in accordance with applicable regulations and material characteristics at the time of disposal.

SECTION XIV – Transport Information

LAND: Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION XV – Regulatory Information

Material is not hazardous as defined by the EU Dangerous Substances/Preparations Directives.

EU LABELING: Not regulated according to EC Directives

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Complies with the following national/regional chemical inventory requirements: EINECS, TSCA

Contact Sales / Marketing group for complete chemical inventory listing applicable to product.

SECTION XVI – Other Information

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

No revision information is available.

THIS SDS COVERS THE FOLLOWING MATERIALS: High Density PE grades not designated by HD or HDP prefix | HCE 004 | HDA 020 | HDZ 245 | HDZ 246 | HDZ 247 | HDZ 248 | HDZ 249 | HDZ 250 | HDZ 251 | HDZ 252 | HDZ 253 | HDZ 254 | HDZ 255 | HDZ 256 | HMA 014 | HMA 016 | HMA 018 | HMA 024 | HMA 025 | HMA 035 | HMG707 | HPA 020 | HTA 001HD | HTA 001HP2 | HTA 002 | HTA 108 | HTX 108 | High Density PE grades for which the grade name consists of a base polymer designated by HD or HDP prefix followed by a suffix referring to an additive package. Applicable designations follow. | HW 8000.02 | HW0001.17 | HYA 010 | HYA 021 | HYA 022 | HYA 201 | HYA 301 | HYA 302 | HYA 600 | HYA 800 | HYE 028 | HYX 802 | LW 8000.02 | NEXXSTAR 02565 | NX 02565 | SYA 024 | SYA 026 | SYA 301 | SYA 480 | XHD 480 | XHE 472 | XHE 480 | XHE 481 | XHE 482 | XHE 483 | ZZZ 001 | ZZZ 003 | ZZZ 004

The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. The term, "ExxonMobil" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest.

DGN: 4407977KAP (1010963)