Formosa Plastics Corporation, Texas
Material Safety Data Sheet

MANUFACTURER

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MSDS No: LLDPE003
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10"

1. PRODUCT IDENTIFICATION

Product Name: Formolene LLDPE Copolymer H
Product Code: All Grades
Chemical Family: Polyolefin
Chemical Name: Ethylene-hexene Copolymer
CAS No: 25213-02-9
Synonyms: Poly(ethylene-co-hexene), LLDPE, PE
Formula: $(C_2H_4)_n+(C_6H_{12})_x$
Technical Information: (361) 987-7453

2. PRODUCT INGREDIENTS

No.	Components	CAS No.	Percent (%)	OSHA PEL
P	Ethylene-hexene Copolymer	25213-02-9	99.5+	Not established

3. PHYSICAL/CHEMICAL PROPERTIES

Physical Form: Pellets/powders
Color: Translucent white
Odor: Odorless
Molecular Weight: Not applicable
Boiling Point: Not available
Melting Point: 268°F (131.11°C)
Freezing Point: Not applicable
Solubility in Water: Insoluble
Specific Gravity: 0.89-0.98 (water = 1)
Vapor Density: Not applicable (air = 1)
Evaporation Rate: Not applicable (Butyl Acetate = 1)
Vapor Pressure: Not applicable
% Volatile: Not applicable
pH: Not applicable

The physical data presented above are typical values and should not be construed as a specification.

4. FIRE HAZARD DATA AND FIGHTING METHOD

Flash Point: Not applicable
Autoignition: Not established
Flammable Limits In Air (LEL, %) Not applicable
(UEL, %) Not applicable
Extinguishing Media: Dry chemical, carbon dioxide, alcohol-type or universal type foam, water spray.
Special Fire Fighting Procedure: In the event of a fire, wear NIOSH approved, positive pressure, self-contained breathing apparatus (SCBA) and full protective clothing. Extinguish fires with water, foam or dry chemical.
Unusual Fire and Explosion Hazards: Avoid accumulation and dispersion of dust to reduce explosion potential. Fire may produce irritating gases and dense smoke.

5. HUMAN HEALTH DATA

Emergency Overview:

Primary Route(s) of Exposure: Eye, Skin Contact

Potential Health Effects and Symptoms of Over-Exposure

Negligible hazard at room temperature under normal use.

Eye Contact:	Solid particles or dust may cause transient irritation as a result of mechanical abrasion. Process fumes may cause irritation.
Skin Contact:	Essentially no irritation to skin. Mechanical injury only. Hot solid may cause thermal burns.
Inhalation:	Not a likely route of exposure.
Ingestion:	May cause choking if swallowed.

Medical Conditions Aggravated by Overexposure:

Not expected.

Carcinogenicity:	**NTP:** No **IARC:** No **OSHA:** No

6. FIRST AID MEASURES

Eye Contact:	Immediately wash eyes with water for at least 15 min. Consult physician if irritation or other symptoms occur.
Skin Contact:	For serious burns, get medical attention. In case of skin contact with hot polymer, immediately immerse in or flush with clean, cold water.
Inhalation:	Move to fresh air. Consult physician if irritation of respiratory passages occurs.
Ingestion:	Consult physician.
Notes to Physician:	No additional remark.
Other Instructions:	None

7. EXPOSURE CONTROLS, PERSONAL PROTECTION RECOMMENDATIONS

Eye Protection:	Safety glasses
Skin Protection:	Gloves required when handling hot material
Respiratory Protection:	None required in normal use of product. NIOSH approved dust mask recommended if dusty conditions exist.
Engineering Control:	Ventilation Requirements - General General ventilation should be sufficient. However, if operating conditions create high airborne concentrations of this material, special ventilation may be needed. If thermal processing results in irritating fumes, special ventilation may be needed. If handling results in dust generation, special ventilation may be needed to ensure that dust exposure does not exceed the OSHA PEL for nuisance dust.
Required Work/Hygiene Procedure:	Minimize contact with skin. Do not eat, drink, or smoke in work area. Wash hands thoroughly after handling, especially before eating, drinking, smoking, chewing, or using restroom facility. Dusted clothing and shoes should be thoroughly cleaned before reuse.

Exposure Guidelines:

No.	Components	OSHA-PEL	ACGIH-TLV
P	Polyethylene Copolymer	None	None

8. ACCIDENTAL RELEASE CONTROL MEASURES

Response to Spills:	Sweep up and recycle if feasible.

9. HANDLING AND STORAGE

Handling:	Maintain good housekeeping. Spilled pellets may create a slipping hazard. As with handling of all powdered materials, accumulations of the powdered product should be removed from settling areas to prevent any secondary potential dust explosion or fire hazards. Electrostatic charge may build up during handling. Grounding of equipment is recommended.
Storage:	Store in a dry place and away from direct sunlight, especially for extended storage period.
Container Use:	Keep containers closed.

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to Avoid:	May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous Decomposition:	Carbon dioxide, carbon monoxide
Hazardous Polymerization:	Will not occur

11. DISPOSAL CONSIDERATIONS

Disposal Method:	It must be disposed of in accordance with Federal, State and local environmental control regulations.
Recycle/Reclaim:	Recycling or reclamation of polyethylene resins should be encouraged where possible.

12. TRANSPORT INFORMATION

DOT Shipping Name:	Not listed
DOT Label:	Not regulated
DOT Hazard Class:	Not applicable
UN/NA Number:	Not applicable
Hazard Label(s):	Not applicable
Hazard Placard(s):	Not applicable
Packing Group:	Not applicable
Bulk Packaging:	Not applicable
RQ:	Not applicable
Emergency Response Guide (ERG) No.:	Not applicable

13. TOXICOLOGICAL INFORMATION

The information provided below can be subject to misinterpretation. Therefore, it is essential the following information be interpreted by individuals trained in its evaluation.

Chemical	Toxicity Data
Polyethylene Copolymer	No toxicology data available. All grades of Polyethylene are FDA approved and are not considered hazardous materials under the OSHA Hazard Communication Standard

14. ECOLOGICAL INFORMATION

No data is available on the adverse effects of this product on the environment. Neither COD or BOD data are available. Fish or birds may eat pellets which may obstruct their digestive tracts.

15. REGULATORY INFORMATION

FEDERAL REGULATORY INFORMATION

Polyethylene

OSHA Status:	None
EPA Clean Air Act Status:	None
EPA Clean Water Act Status:	None
TSCA Status:	TSCA Inventory (40 CFR710) listing
CERCLA RQ:	None

SARA Title III

Polyethylene

Section 302*	Section 313**	Section 311/312***
None	None	None

*Reportable quantity of extremely hazardous substance, Sec. 302
*Threshold planning quantity, extremely hazardous substance, Sec. 302
**Toxic chemical, Sec. 313
**Category as required by Sec 313 (40CFR372.65C). Must be used on Toxic Release Inventory form.
***Hazard category for SARA Sec 311/312 reporting H1=acute health hazard, H2=chronic health hazard, P3=fire hazard, P4=sudden release of pressure hazard, P5=reactive hazard

RCRA Status:	If disposed of in its purchased form, this would not be a RCRA hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40CFR261.20-24).

OTHER REGULATORY INFORMATION

The following chemicals are specifically listed by individual states; other product-specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements, you should contact the appropriate agency in your state.

State	Chemical	Regulation
None	Polyethylene	None

Product Name: Polyethylene LLDPE Copolymer

International

None

16. OTHER INFORMATION

NFPA

Fire - 1

Health - 0

Reactivity - 0

Specific Hazard - None

HMIS

Health - 0

Flammability - 1

Reactivity - 0

Personal Protection Index - E

For information regarding safe use of polyolefin articles intended for direct food, please refer to the U.S. Food and Drug Administration as specified in 21 CFR 177.1520 or Formolene LLDPE Technical Data Sheet.