SECTION 1. IDENTIFICATION

Product/Material : Linear Low Density Polyethylene Resin Film Grade
Product grade : ASRENE UF1810
Application : Cast & blown film, Stretch film, Multi-layer film, Powder coating, etc.
Manufacturer : PT. CHANDRA ASRI PETROCHEMICAL Tbk (CAP)
   Plant : Jl Raya Anyer Km.123, Ciwandan, Cilegon 42447, Indonesia. Phone: 62-254-601501
Emergency contact (24 hrs) : GROUPSHEDIVISION@capcx.com, Phone: +62-254-601829; 254-601501 Ext 1232
Additional Information : GROUPRND@capcx.com, Phone: +62-254-601501 Ext 1309, 1616

SECTION 2. HAZARD IDENTIFICATION

Hazardous Component : None
Hazard statements : Avoid contact with molten material
NFPA Hazard rating : Health = 0   Flammability = 1   Reactivity = 0

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name / Family Name : Polyethylene / Polyolefin   Chemical Formula: (C_{2}H_{4})_{n}
Common Name, Trade Name : LLDPE   CAS No: 9002-88-4

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<th>NO.</th>
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<td>Linear Low Density Polyethylene</td>
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SECTION 4. FIRST-AID MEASURES

The Health effects below are based upon component health effects consistent with requirement under OSHA hazard communication (29 CFR 1910.1200).

First-Aid Step
- Inhalation : Product fines may cause mechanical irritation
- Skin Contact : Product is unlikely to cause irritation at room temperature
- Eye Contact : Product fines may cause mechanical irritation
- Ingestion : Product is practically non-toxic
- Sign and Symptoms : Irritation as noted above
- Aggravated Medical Condition : Preexisting eye and respiratory disorder may be aggravated by exposure to product fines

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media : Use water fog, foam, dry chemical or CO_{2}.
Unusual Fire and Explosion Hazard : Treat as a solid that can burn, molded parts generally burn slowly with a low smoke density and flaming drips under certain conditions can burn with a high smoke density.
**Fire Fighting Procedures and Precaution**: Material will not burn unless preheated. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots) including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

**Protective Clothing for Fire Fighter**: Hand gloves, goggles

### SECTION-6. ACCIDENTAL RELEASE MEASURES

- **Small Spill and Leak**: Pellets on the floor could present a serious slipping problem. Exercise good housekeeping to avoid this hazard. Sweep, shovel or vacuum material into clean containers.
- **Large Spill and Leak**: Use a shovel to put the material into a convenient waste disposal container does not allow any potentially contaminated water with pellets to entry any waterway, sewer or drain.

### SECTION-7. HANDLING AND STORAGE

- **Personal Precautionary Measures**: Avoid contact with molten material
- **Handling**: Maintain good housekeeping. Keep away from heat, sparks, open flame or any ignition source. Use with adequate ventilation. After handling, always wash hands thoroughly with soap and water. Spilled pellet may create a slipping hazard. Electrostatic charge may build up during handling. Grounding of equipment is recommended.
- **Storage**: Store in a dry place with adequate ventilation and away from direct sunlight, excessive heat and strong oxidizers. Keep packaging (container) closed to prevent contamination

### SECTION-8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- **Control Parameters**: Although general room ventilation should be adequate in most applications, local exhaust ventilation is recommended for control of airborne dust, fumes and vapors, particularly in confined areas.
- **Respiratory Protection**: Use NIOSH approved respirator if unable to control airborne dust, fumes and vapors.
- **Eye Protection**: Wear eye protection (safety glasses, goggles, face-shield) when processing.
- **Skin and Body Protection**: Wear chemical-resistant gloves, heat protective gloves and protective clothing as well as a face-shield.
- **Other Personal Protection**: Use safety non-slip shoes in area where spills or leaks occur.

### SECTION-9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance and Odor**: 3mm ø Solid, Whitish in color and essentially odorless pellet
- **Organoleptic**: Tasteless
- **Melting Point / freezing Point**: 105 – 125°C / Not applicable
- **Initial Boiling Point**: Not applicable
- **Flash Point**: Not applicable, Combustible solid
- **Evaporation Rate (n-Butyl Acetate = 1)**: Not applicable
- **Specific Gravity (H₂O=1)**: <1.0
- **Solubility (in water)**: Insoluble
### Viscosity
- Solid, not applicable

### Melt Index
- 190°C/2.16kg: 1.0 gr/10min

### Density
- 0.919 gr/cm³

## SECTION-10. STABILITY AND REACTIVITY

**Stability**: Stable under normal operating conditions of storage, handling and use.

**Hazardous Reaction**: Not likely to occur under normal operating conditions of storage, handling and use.

**Conditions to Avoid**: Strong oxidizing agents. Temperature over 300°C, sparks and open flame.

**Hazardous Decomposition Products**: Thermal decomposition products are highly dependent on the combustion conditions. A complex mixture of airborne solid. Liquid particulates and gases will evolve when this material undergoes pyrolysis or combustion. Carbon monoxide and unidentified organic compounds may be formed upon combustion.

## SECTION-11. TOXICOLOGICAL INFORMATION

**Symptoms related to toxicological characteristic**: Material is considered essentially inert, non-toxic and practically not harmful as well as not hazardous substances under RoHS regulation. Exposures to high levels of dust or heated fumes may cause irritation.

**Carcinogenicity**: Material is not carcinogenic as listed by OSHA, NTP or IARC.

## SECTION-12. ECOLOGICAL INFORMATION

**Ecotoxicity**: Material is not expected to be harmful to aquatic organisms

**Environmental Fate**: Material is not volatile, insoluble in water, and resistant to biodegradation

**Mobility**: The product has low soil mobility. This material floats on water.

## SECTION-13. DISPOSAL CONSIDERATIONS

**Waste Disposal**: Place in an appropriate disposal facility in compliance with local regulations

## SECTION-14. TRANSPORT INFORMATION

**Transportation Classification**: Not controlled under DOT (USA), TDG (Canada), ADR (Europe), IMDG and IATA

## SECTION-15. REGULATORY INFORMATION

*The components of this product are listed on the EPA/TSCA inventory of chemical substances.*

**HCS Classification**: This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication

## SECTION-16. OTHER INFORMATION

Abbreviations that may have been used in this document:

- **ACGIH**: AMERICAN CONFERENCE of GOVERNMENTAL INDUSTRIAL HYGIENISTS
- **DOT**: DEPARTMENT OF TRANSPORTATION
- **NIOSH**: NATIONAL INSTITUTE for OCCUPATIONAL SAFETY & HEALTH
- **OSHA**: OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
- **RoHS**: RESTRICTION of HAZARDOUS SUBSTANCES
- **NTP**: NATIONAL TOXICOLOGY PROGRAM
- **IART**: INTERNATIONAL ASSOCIATION OF RESPIRATORY THERAPISTS
- **HCS**: HAZARD COMMUNICATION STANDARD
- **LDK**: LEMBAR DATA KESELAMATAN
- **EEC**: EUROPE ECONOMIC COMMITTE
This Safety Data Sheet contains the following historical of revisions:

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<td>SECTION-05</td>
<td>Protective clothing for fire fighter was modified</td>
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