SAFETY DATA SHEET (SDS)

This SDS is effective as from 25 Jan 2019 and supersedes previous document published. Validity date: 25 Jan 2024

SECTION 1. IDENTIFICATION

Product/Material: Polypropylene Homopolymer BOPP Film Grade
Product grade: TRILENE HF2.0BM
Application: BOPP metallized film and matte film, packaging for cigarettes, invitation letter 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: Polypropylene / Polyolefin
Common Name, Trade Name: PP Homopolymer
Chemical Formula: (C₃H₆)n
CAS No: 9003-07-0

<table>
<thead>
<tr>
<th>NO.</th>
<th>COMPOSITION</th>
<th>PERCENT</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Polypropylene Homopolymer</td>
<td>≥ 99</td>
</tr>
<tr>
<td>2</td>
<td>Minor Additives</td>
<td>&lt; 1</td>
</tr>
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</table>

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 CO₂.
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 do 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: 157 – 170°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**$^{230{^\circ}C/2.16kg}$ : 2.9 gr/10min

**Density** : 0.903 gr/cm$^3$

### SECTION-10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Stability</th>
<th>Stable under normal operating conditions of storage, handling and use.</th>
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</thead>
<tbody>
<tr>
<td>Hazardous Reaction</td>
<td>Not likely to occur under normal operating conditions of storage, handling and use</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Strong oxidizing agents. Temperature over 300°C, sparks and open flame.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>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</td>
</tr>
</tbody>
</table>

### SECTION-11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Symptoms related to toxicological characteristic</th>
<th>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.</th>
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</thead>
<tbody>
<tr>
<td>Carcinogenicity</td>
<td>Material is not carcinogenic as listed by OSHA, NTP or IARC</td>
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</table>

### 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 COMMITTEE
This Safety Data Sheet contains the following historical of revisions:

<table>
<thead>
<tr>
<th>Rev No</th>
<th>Issued Date</th>
<th>Revision Change</th>
<th>Description</th>
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<tbody>
<tr>
<td>00</td>
<td>09 Jan 2015</td>
<td>Original Document</td>
<td></td>
</tr>
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</table>
| 01     | 25 Jan 2019 | SECTION-02      | 1. Pictogram was modified  
          |              |                 | 2. NFPA was modified          |
|        |             | SECTION-05      | Protective clothing for fire fighter was modified |

THE INFORMATION EXPRESSED HEREIN IS THOSE OF QUALIFIED CURRENT KNOWLEDGE AND EXPERIENCE AND THAT THE INFORMATION IS SUFFICIENT OF ALL CASES. USERS SHOULD CONSIDER THE DATA AS A SUPPLEMENT TO OTHER INFORMATION AND SHOULD MAKE INDEPENDENT DETERMINATION OF ITS SUITABILITY, THEIR EMPLOYEES AND CUSTOMERS AND OF THE ENVIRONMENTAL PROTECTION TO ASSURE PROPER USE AND DISPOSAL OF THE MATERIAL. RESPONSIBILITY FOR USAGE, STORAGE, HANDLING AND DISPOSAL OF THE PRODUCTS DESCRIBED HEREIN, WHETHER ALONE, OR IN COMBINATION WITH ANY OTHER SUBSTANCE, IS THAT OF THE PURCHASER AND/OR END-USER. CAP MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULT TO BE OBTAINED FROM THE USE THEREOF. CAP ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.