

1. Product and company identification

Product name	Polyethylene, homopolymer
Supplier	INEOS USA LLC 2600 South Shore Blvd. League City, Texas 77573
Trade name	Covers the following grades: A60-70-162, G60-25-144, J60-800-178, J60-1700-173, J60-1700-183, T60-475-119, T60-500, T60-800, and Experimental formulation. (designated by "x" in grade name)
Material uses	Consumer products. Industrial applications.
MSDS #	0000002010 (NAP)
Emergency telephone number	1 (800) 424-9300 Outside the US: +1 703-527-3887 (CHEMTREC)

2. Hazards identification

Physical state	Granular solid. Pellets. Powder or flakes.
Emergency overview	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.
Routes of entry	Dermal contact. Eye contact. Inhalation. Ingestion.
<u>Potential acute health effects</u>	
<u>Inhalation</u>	Dust: Exposure to airborne concentrations well above the recommended exposure limits may cause irritation of the nose, throat, and lungs. Vapor: If heated to more than 300°C, the product may form vapors or fumes which could cause irritation of the respiratory tract, coughing, and shortness of breath.
Ingestion	No known significant effects or critical hazards.
Skin	No significant irritation expected other than possible mechanical irritation. Heated material can cause thermal burns.
Eyes	No significant irritation expected other than possible mechanical irritation. Heated material can cause thermal burns. Emits acrid smoke and irritating fumes when heated to decomposition.

3. Composition/information on ingredients

<u>Name</u> ETHYLENE, HOMOPOLYMER	<u>CAS number</u> 9002-88-4	<u>%</u> >98
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Flush eyes with plenty of water for 15 minutes, occasionally lifting upper and lower eyelids. Get medical attention if symptoms occur.
Skin contact	If burned by contact with hot material, flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. No attempt should be made to detach polymer adhering to the skin or to remove clothing attached with molten material. Thermal burns require immediate medical attention. Cold material: Wash the contaminated area of body with soap and fresh water.

4 . First aid measures

Inhalation

Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.

Ingestion

Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

5 . Fire-fighting measures

Flammability of the product

May be combustible at high temperature.

Extinguishing media

Suitable

In case of fire, use water spray (fog), foam or dry chemical.

Not suitable

Do not use water jet.

Special exposure hazards

High dust concentrations have a potential for combustion or explosion.

Hazardous thermal

decomposition products

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide

May also contain low levels of aldehydes, ketones, organic acids or hydrocarbons.

Special protective

equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

Personal precautions

Chemical/Dust Goggles Personnel should wear protective clothing.

Environmental precautions

If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in an appropriate container for disposal. Avoid creating dusty conditions and prevent wind dispersal. Avoid contact of spilled material with soil and prevent runoff entering surface waterways. See section 13 for waste disposal information.

Methods for cleaning up

Small spill

Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7 . Handling and storage

Handling

There is a risk of being splashed with molten materials. Thermal burns are the most common injury caused while processing molten material. Do not inhale fumes or vapor from molten product. Use with adequate ventilation.

When handling hot material, wear heat resistant protective gloves, clothing and face shield that are able to withstand the temperature of the heated product.

Pneumatic conveying of powder and pellets can generate large static electrical charges.

Electrical discharge in presence of air can cause an explosion. Earth all equipment.

High dust concentrations have a potential for combustion or explosion. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Storage

Keep container tightly closed and sealed until ready for use. Keep away from heat and direct sunlight. The main hazards are related to pallet stock slippage and forklift truck maneuvers, which can cause injury to personnel. It is recommended that adequate procedures covering storage and handling of pallets are established and maintained. These procedures must be kept up to date and regularly audited.

8 . Exposure controls/personal protection

Ingredient	Exposure limits
POLYETHYLENE (HDPE) HOMOPOLYMER	ACGIH TLV (United States, 2005). twa: 10 mg/m ³ 8 hour(s). Form: Inhalable TWA: 3 mg/m ³ 8 hour(s). Form: Respirable fraction PNOS

Engineering measures

No special ventilation requirements. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Hygiene measures

Wash hands after handling compounds and before eating, smoking and using the lavatory and at the end of the day.

Personal protection

Respiratory

Product processing, heat sealing of film, or operations involving the use of wires or blades heated above 300°C may produce dust, vapor or fumes. To minimize risk of overexposure to dust, vapor or fumes it is recommended that a local exhaust system is placed above the equipment, and that the working area is properly ventilated. If ventilation is inadequate, use certified respirator that will protect against dust/mist.

Hands

Hot material: Wear heat-resistant protective gloves that are able to withstand the temperature of molten product.
Cold material: None required; however, use of gloves is good industrial practice. Consult your supervisor or S.O.P. for special handling instructions.

Eyes

Safety glasses with side shields. Use dust goggles if high dust concentration is generated.

Skin

Hot material: Wear heat-resistant protective gloves that are able to withstand the temperature of molten product.
Cold material: None required; however, use of gloves is good industrial practice.

9 . Physical and chemical properties

Physical state	Granular solid. Pellets. Powder or flakes.
Flash point	Closed cup: >343°C (>649.4°F)
Auto-ignition temperature	>343°C (>649.4°F)
Color	White, translucent or colorless.
Odor	Odorless.
Melting/freezing point	126 to 135°C (258.8 to 275°F)

10 . Stability and reactivity

Chemical stability	The product is stable.
Hazardous polymerization	Will not occur.
Conditions to avoid	Stable under recommended storage and handling conditions (see section 7). If heated to more than 300°C, the product may form vapors or fumes which could cause irritation of the respiratory tract, coughing, and shortness of breath. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). To avoid fire or explosion, ground and bond container and receiving equipment (and ground personnel) before transferring material.
Materials to avoid	No specific data.
Hazardous decomposition products	carbon oxides (CO, CO ₂) May also contain low levels of aldehydes, ketones, organic acids or hydrocarbons.
Incompatibility with various substances	None identified.

11 . Toxicological information

Carcinogenicity	No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or International Agency for Research on Cancer (IARC).
Mutagenicity	No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as a mutagen.
Teratogenicity	No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.
Fertility effects	No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as a reproductive toxin.

12 . Ecological information

Environmental effects	Wildlife may ingest plastic pellets or bags. Although not toxic, such materials may physically block the digestive system, causing starvation or death.
Other adverse effects	Wildlife may ingest plastic pellets or bags. Although not toxic, such materials may physically block the digestive system, causing starvation or death.

13 . Disposal considerations

Waste disposal	Recycle to process, if possible. Avoid contact of spilled material with soil and prevent runoff entering surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities.
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Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

Not classified as hazardous for transport (IMO, IATA/ICAO, DOT, TDG, Mexico).

15 . Regulatory information

HCS Classification	Not regulated.
U.S. Federal regulations	United States inventory (TSCA 8b): All components are listed or exempted. SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: No products were found. SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean Air Act (CAA) 112 accidental release prevention: No products were found. Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

15 . Regulatory information

State regulations

Connecticut Carcinogen Reporting: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: None of the components are listed.
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: None of the components are listed.
New Jersey Spill: None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.
New York Acutely Hazardous Substances: None of the components are listed.
New York Toxic Chemical Release Reporting: None of the components are listed.
Pennsylvania RTK Hazardous Substances: None of the components are listed.
Rhode Island Hazardous Substances: None of the components are listed.

United States inventory (TSCA 8b)

All components are listed or exempted.

WHMIS (Canada)

Not controlled under WHMIS (Canada).

Canadian lists

International regulations

International lists

Please go to RPS online at www.ineos-op.com

16 . Other information

Label requirements

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

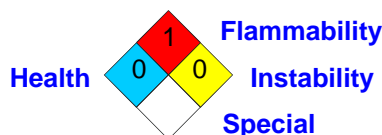
Hazardous Material Information System (U.S.A.)

Health	0
Flammability	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



Date of issue

6/3/2009.

16 . Other information

Version 0.09
Prepared by Product Stewardship

✔ Indicates information that has changed from previously issued version.

Notice to reader

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