

Material Safety Data Sheet

BLACK POLYETHYLENE ETHENE-HEXENE-1 COPOLYMER OR 1-butene, polymer with ethene, Black.

1. Product and company identification

Product name	BLACK POLYETHYLENE ETHENE-HEXENE-1 COPOLYMER OR 1-butene, polymer with ethene, Black.
Supplier	INEOS USA LLC 2600 South Shore Blvd. League City, Texas 77573
Trade name	Various
Material uses	Consumer products. Industrial applications.
MSDS #	0000002032 (NAP)
Emergency telephone number	1 (800) 424-9300 Outside the US: +1 703-527-3887 (CHEMTREC)

2. Hazards identification

Physical state	Granular solid. Powder or flakes. Pellets.
Emergency overview	CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, EYE, LENS OR CORNEA Handling and/or processing of this material may generate dust which may cause mechanical irritation of the eyes, skin, nose and throat.
Routes of entry	Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects	
Inhalation	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>	<u>CAS number</u>	<u>%</u>
Ethylene-Hexene-1 Copolymer (Pure)	25213-02-9	>96
OR		
Polyethylene-Butene Copolymer (Pure)	25087-34-7	>96
CARBON BLACK (PURE)	1333-86-4	<4

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	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
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 immediately.
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 immediately.

5 . Fire-fighting measures

Flammability of the product	May be combustible at high temperature.
<u>Extinguishing media</u>	
Suitable	Use an extinguishing agent suitable for the surrounding fire.
Not suitable	Do not use water jet.
Special exposure hazards	High dust concentrations have a potential for combustion or explosion. This material is not explosive as defined by established regulatory criteria.
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 positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Special remarks on fire hazards	High dust concentrations have a potential for combustion or explosion.
Special remarks on explosion hazards	This material is not explosive as defined by established regulatory criteria.

6 . Accidental release measures

Personal precautions	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Follow all fire fighting procedures (See Section: "Fire-fighting measures").
Environmental precautions	If emergency personnel are unavailable, contain spilled material. Avoid contact of spilled material with soil and prevent runoff entering surface waterways.
<u>Methods for cleaning up</u>	
Small spill	For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal.
Large spill	For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

7 . Handling and storage

Handling	<p>There is a risk of being splashed with molten materials. Heated material can cause thermal burns. Do not inhale fumes or vapor from molten product. Use with adequate ventilation.</p> <p>When handling hot material, wear heat resistant protective gloves, clothing and face shield that are able to withstand the temperature of the heated product.</p> <p>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</p>
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7 . Handling and storage

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 container in a cool, well-ventilated area. 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
Ethylene-Hexene-1 Copolymer (Pure)	ACGIH TLV (United States). TWA: 10 mg/m ³ 8 hour(s). Form: Inhalable TWA: 3 mg/m ³ 8 hour(s). Form: Respirable fraction
Polyethylene-Butene Copolymer (Pure)	ACGIH TLV (United States). TWA: 10 mg/m ³ Form: Inhalable TWA: 3 mg/m ³ Form: Respirable fraction
CARBON BLACK (PURE) (IN PROGRESS)	ACGIH TLV (United States, 1/2007). TWA: 3.5 mg/m ³ 8 hour(s). OSHA PEL 1989 (United States, 3/1989). TWA: 3.5 mg/m ³ 8 hour(s). NIOSH REL (United States, 12/2001). TWA: 3.5 mg/m ³ 10 hour(s). TWA: 0.1 mg of PAHs/cm ³ 10 hour(s). OSHA PEL (United States, 11/2006). TWA: 3.5 mg/m ³ 8 hour(s).

Engineering measures

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

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. If ventilation is inadequate, use certified respirator that will protect against dust/mist. 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.

The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

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.

8 . Exposure controls/personal protection

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 protective clothing is good industrial practice.
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9 . Physical and chemical properties

Physical state	Granular solid. Powder or flakes. Pellets.
Flash point	Closed cup: >343°C (>649.4°F)
Auto-ignition temperature	>343°C (>649.4°F)
Color	Black.
Odor	Odorless.
Melting/freezing point	110 to 135°C (230 to 275°F)
Solubility at room temperature (g/l)	Not available.
Density	Not available.

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. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment 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	POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA. Risk of cancer depends on duration and level of exposure. Classified 2B (Possible for humans.) IARC: [Carbon black] This product may contain carbon black. Carbon black has been shown to cause lung tumors in rats at high exposure concentrations. These concentrations exceed the capacity of the lung to clear the carbon black particles, thus resulting in significant toxicity. The International Agency for Research on Cancer (IARC) has evaluated carbon black and found it to be possibly carcinogenic to humans (Group 2B). Because the components are encapsulated in the resin, the above mentioned health effects would not be expected under conditions of normal use.
Mutagenicity	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.
Teratogenicity	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

11 . Toxicological information

Fertility effects Not available.

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. This product is not likely to move rapidly with surface or groundwater flows because of its low water solubility.

Mobility Not available.

Other adverse effects No known significant effects or critical hazards.

13 . Disposal considerations

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

RCRA classification : Not available.

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 Carcinogen
Target organ effects

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: Carbon black
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.

State regulations MASSACHUSETTS - RTK: Carbon black
New Jersey: Carbon black
PENNSYLVANIA - RTK: Carbon black

WARNING: This product contains a chemical known to the State of California to cause cancer.
Carbon black

United States inventory (TSCA 8b) All components are listed or exempted.

WHMIS (Canada) Not a WHMIS controlled material.

15 . Regulatory information



CEPA Toxic substances: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: None of the components are listed.
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

[International regulations](#)

[International lists](#)

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

16 . Other information

[Label requirements](#)

CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
RESPIRATORY TRACT, EYE, LENS OR CORNEA

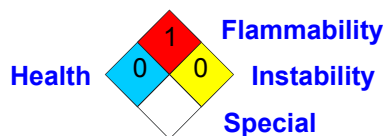
[Hazardous Material Information System \(U.S.A.\)](#)

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 \(U.S.A.\)](#)



References : Not available.

Other special considerations : Not available.

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Prepared by Product Stewardship

✔ Indicates information that has changed from previously issued version.

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16 . Other information

the specific product and/or material designated and may not be valid for such product and/or material used in combination with any other product and/or material or in any process, unless otherwise specified.