SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of NOM-018-STPS-2015

Product: High Density Polyethylene Last revision date: 05-May-2021 Revision: 2.6

SECTION 1. IDENTIFICATION

Product Identifier	:	High Density Polyethylene - Copolymer
Products	:	DH004, DH008, HDC0752, HDC0962, DHB0012, DHB0013, DHB0014, DHB0015, HDE0153, HDE2055
Product Type	:	Pellets

Recommended use of the chemical and restrictions to use

Recommended use	:	Polymer preparations and compounds
Restrictions on use	:	No information available

Supplier's details

Company Name	:	Braskem Idesa
Address	:	**Blvd. Manuel Ávila Camacho #36 piso 24** Col. Lomas de Chapultepec Del. Miguel Hidalgo CP 11000, Ciudad de México - México
Company telephone number	:	52(55) 6234-1100 Additional regulatory information is available through our website: www.braskemidesa.com.mx
Regulatory information contact	:	product.safety@braskem.com
Emergency telephone	:	SETIQ: 800 00 214 00 (Mexico) SETIQ: 55 59 15 88 (Metropolitan area) 24 Hour Emergency Phone Number
Additional emergency telephone	:	CHEMTREC: +1-703-527-3887 (International) CHEMTREC: 1-800-424-9300 (North America) 24 Hour Emergency Phone Number

SECTION 2. HAZARD(S) IDENTIFICATION

Classification : Not classified

Label elements

Hazard statements : Not classified

Other information

Hazards not otherwise classified : Special danger of slipping by leaking/spilling product. Electrostatic charges may be generated during handling. If small particles are generated during processing or handling, this product may form combustible dust concentrations in air

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Component	CAS Number	Weight-%
Polyethylene copolymer of ethylene and 1-Hexene	25213-02-9	> 99

Components contributing to the classification of the substance : 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 and hence require reporting in this section.

SECTION 4. FIRST-AID MEASURES

Description of necessary first aid measures

Inhalation : Remove to fresh air. Medical aid is necessary if symptoms appear to be an obvious consequence of inhalation.

Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.

Skin contact : After contact with product or dust: Wash skin with soap and water. Get medical attention if irritation develops and persists. After contact with molten product, cool skin area rapidly with cold water. Removal of solidified molten material from skin requires medical assistance.

Ingestion : Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : Product dust may be irritating to eyes, skin and respiratory system.

Symptoms/effects after skin contact : Skin contact with hot material may result in severe burns.

Indication of any immediate medical attention and special treatment needed

Note to physicians : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media : CO2, dry chemical, dry sand, alcohol-resistant foam, Water spray or fog

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical : Avoid generation of dust. Fine dust dispersed in air may ignite. Powders, dusts, shavings, borings, turnings or cuttings may explode or burn with explosive violence.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
Carbon dioxide
Carbon monoxide
Other irritating chemicals

Explosion data : Sensitivity to mechanical impact: None.
Sensitivity to static discharge: Yes.

Special protective actions for fire-fighters : Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Ensure adequate ventilation. Avoid contact with eyes. Avoid generation of dust. Use personal protective equipment as required. Do not breathe dust. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges.
Other information	:	Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions	:	See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment	:	Prevent further leakage or spillage if safe to do so. Prevent dust cloud.
Methods for cleaning up	:	Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal. Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	:	Clean contaminated objects and areas thoroughly observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	:	Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with eyes. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. Airborne dusts are potentially explosive. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Handling and processing operations should be conducted in accordance with 'best practices' (e.g. NFPA-654).
Information concerning Occupational Hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. When handling hot material, use heat resistant protective gloves, clothing and face shield that will be able to withstand the temperature of the heated product.

Conditions for safe storage, including any incompatibilities

Storage Conditions	:	Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Keep container closed when not in use.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits	:	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls	:	Ensure that eyewash stations and safety showers are close to the workstation location. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Individual protection measures, such as personal protective equipment

Eye/face protection	:	Wear safety glasses with side shields (or goggles). During hot processing: Tight sealing safety goggles. If there is a risk of contact: Face protection shield.
Hand protection	:	Wear suitable gloves. Heat resistant gloves are recommended when handling molten materials.
Skin and body protection		Wear suitable protective clothing. During hot processing:. Long sleeved clothing. Protective shoes or boots.
Respiratory protection	:	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.
Thermal risk	:	When handling hot material, use heat resistant gloves, full suit with ventilation and air supply or heat-resistant suit
General hygiene considerations	:	Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Regular cleaning of equipment, work area and clothing is recommended.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Translucent pellets
Physical state	:	Solid
Color	:	Translucent / white
Odor	:	No information available
Odor threshold	:	No information available
pH	:	No data available
Melting point/range	:	110 – 170 °C
Freezing point/range	:	No data available
Boiling point/ boilingrange	:	No data available
Flash Point	:	No data available
Evaporation Rate	:	No data available
Flammability	:	No data available
Explosiveness Limit	:	No data available Note: Minimum explosive concentration of polymer powder varies depending on the distribution and size of particles.

Vapor pressure	:	No data available
Vapor density	:	No data available
Relative density	:	0.940 – 0.970 g/cm³
Solubility	:	Insoluble in water
Partition coefficient n-octanol / water	:	No data available
Auto-ignition temperature	:	> 340 °C
Decomposition temperature	:	No data available
Viscosity	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	None under normal use conditions.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	None under normal processing.
Hazardous polymerization	:	Hazardous polymerization does not occur
Conditions to avoid	:	If heated to more than 300°C, the product may form vapors or fumes which could cause respiratory tract irritation, 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, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.
Incompatible materials	:	Strong acids, strong oxidants, chlorinated solvents and aromatics.
Hazardous decomposition products	:	Decomposition products depend on temperature, exposure to air, and the presence of other substances. Processing may release irritating fumes, olefinic and paraffinic compounds, carbon monoxide, and carbon dioxide. Potential thermal decomposition products include trace aldehydes (including formaldehyde), alcohols, organic acids, and hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity	:	Based on available data, the classification criteria are not met
Corrosion / Skin irritation	:	Not irritating under normal conditions.
Serious eye damage /irritation	:	Not irritating under normal conditions.
Respiratory or skin sensitization	:	Not irritating under normal conditions.
Germ cell mutagenicity	:	No mutagenic effects in germ cells are known.
Carcinogenicity	:	No carcinogenic effects known.
Reproductive toxicity	:	Effects of reproductive toxicity are unknown.
STOT - single exposure	:	Based on available data, the classification criteria are not met.

STOT - repeated exposure	:	Based on available data, the classification criteria are not met.
Aspiration hazard	:	No information available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	:	It is possible that wildlife ingests product, although is not toxic, such material can physically block the digestive system, causing hunger and death.
Persistence and degradability	:	High persistence and slow decomposition are expected.
Bioaccumulation	:	No information available.
Mobility in soil	:	This product is insoluble in water and is nonvolatile
Other adverse effects	:	No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Métodos de disposición	:	Waste generation should be avoided or minimized whenever possible. Disposal of this product, and any by-products should all time comply with the requirements of environmental protection and waste disposal legislation and the requirements of local authorities. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed safely. Care should be taken when handling emptied containers that have not been cleaned or rinsed. Empty containers or coatings may retain some product residues. Avoid dispersal of spilled material and contact with soil, waterways, drains and sewers.

SECTION 14. TRANSPORT INFORMATION

Mex	:	Not regulated
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	No information available
TDG	:	Not regulated
DOT	:	Not regulated
IATA	:	Not regulated
IMDG	:	Not regulated

SECTION 15. REGULATORY INFORMATION

For information regarding regulatory compliance and global inventory, please contact:
Product.Safety@braskem.com

SECTION 16. OTHER INFORMATION

NFPA	Health hazards 1	Flammability 1	Instability 0	Physical and chemical properties -
HMIS	Health hazards 1	Flammability 1	Physical hazards 0	Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Acronyms
CAS - Chemical Abstracts Service
TDG - Transportation of Dangerous Goods
DOT - Department of Transportation
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods

Sections of the Safety Data Sheet that have been updated:

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The information is believed to be accurate, but it is not exhaustive and must be used only as guidance. It is based on the current state of knowledge of the chemical substance or mixture and is applicable to the appropriate safety precautions for the product.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet