

Revision date 06-Mar-2025

Revision Number 1.0

## **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

### **1.1. Product identifier**

**Product Code(s)** HDB0355, HDB0358, HDB0763, HDB8550, HDF1050, HDF1050XP, HDF8000, HDG0739, HDI0453U1, HDI0653U1, HDI0661U1, HDI0861U1, HDI2061, HDI4553, HDP0353, HDP3049LS, HDS0255, HDI0453U1

**Product Name** High Density Polyethylene

**Synonyms** None

**Pure substance/mixture** Mixture

### **1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Recommended use** Polymer preparations and compounds

**Uses advised against** No information available

### **1.3. Details of the supplier of the safety data sheet**

**Importer**

Only Representative:  
ITS Testing Services (UK) Ltd  
Caleb House, 734 London  
Road, West Thurrock, Grays  
Essex RM20 3NL, United  
Kingdom

**Supplier**

Braskem Netherlands BV  
Weena 238-240, 9th Floor Tower C  
NL - 3012NJ- Rotterdam, Netherlands  
Telephone: +31 10 798 5002

**For further information, please contact**

**E-mail address** polymer.compliance-europe@braskem.com

### **1.4. Emergency telephone number**

**Emergency telephone** CHEMTREC UK +44 20 3807 3798  
CHEMTREC International: +1 703-741-5970

## **SECTION 2: Hazards identification**

### **2.1. Classification of the substance or mixture**

**GB CLP (SI 2020/1567 as amended)**

Not classified

### **2.2. Label elements**

**Hazard statements**

Not classified.

**2.3. Other hazards****Other hazards**

Special danger of slipping by leaking/spilling product. Electrostatic charges may be generated during handling. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapor mixtures may occur.

**PBT and vPvB assessment**

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable

**3.2 Mixtures**

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
1-Hexene, polymer with ethene 25213-02-9	<100	-	-	[B]	-	-	-	-

*Classification according to GB CLP (SI 2020/1567 as amended)*

[B] - Substance with a Community workplace exposure limit

**Full text of H- and EUH-phrases: see section 16****Acute Toxicity Estimate**

No information available

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (UK REACH Article 59)

**SECTION 4: First aid measures****4.1. Description of 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 afterwards drink plenty of water. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person.

**4.2. Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Product dust may be irritating to eyes, skin and respiratory system.
<b>Effects of Exposure</b>	None known.

**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Note to doctors</b>	Treat symptomatically.
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**SECTION 5: Firefighting measures****5.1. Extinguishing media**

<b>Suitable Extinguishing Media</b>	CO2, dry chemical, dry sand, alcohol-resistant foam. Water spray or fog.
<b>Unsuitable extinguishing media</b>	Do not use a solid water stream as it may scatter and spread fire.

**5.2. Special hazards arising from the substance or mixture**

<b>Specific hazards arising from the chemical</b>	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.
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**5.3. Advice for firefighters**

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Ensure adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
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**6.3. Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so. Prevent dust cloud.
<b>Methods for cleaning up</b>	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 labelled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<b>Advice on safe handling</b>	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).
<b>General hygiene considerations</b>	Do not breathe dust. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Regular cleaning of equipment, work area and clothing is recommended.

### 7.2. Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals.
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### 7.3. Specific end use(s)

<b>Specific use(s)</b>	Polymer preparations and compounds. Industrial. Professional use.
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<b>Risk Management Methods (RMM)</b>	The information required is contained in this Safety Data Sheet.
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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>Exposure Limits</b>	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<b>Biological occupational exposure limits</b>	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.
<b>Derived No Effect Level (DNEL) - Workers</b>	No information available
<b>Derived No Effect Level (DNEL) - General Public</b>	No information available.
<b>Predicted No Effect Concentration (PNEC)</b>	No information available.

### 8.2. Exposure controls

<b>Engineering controls</b>	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.
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**Personal protective equipment**

<b>Eye/face protection</b>	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. Eye protection must conform to standard EN 166.
<b>Hand protection</b>	Wear suitable gloves. Heat resistant gloves are recommended when handling molten materials. Gloves must conform to standard EN 374.
<b>Skin and body protection</b>	During hot processing: Wear suitable protective clothing. Long sleeved clothing. Protective shoes or boots.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. 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.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	Translucent Pellets
<b>Physical state</b>	Solid
<b>Colour</b>	White to off-white
<b>Odour</b>	No information available
<b>Odour threshold</b>	No information available

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>		No data available
<b>pH (as aqueous solution)</b>		No data available
<b>Melting point / freezing point</b>		No data available
<b>Initial boiling point and boiling range</b>		No data available
<b>Flash point</b>		No data available
<b>Evaporation rate</b>		No data available
<b>Flammability</b>		No data available
<b>Flammability Limit in Air</b>		
<b>Upper flammability or explosive limits</b>		No data available
<b>Lower flammability or explosive limits</b>		No data available
<b>Vapour pressure</b>		No data available
<b>Relative vapour density</b>		No data available
<b>Relative density</b>	0,940 – 0,970 g/cm <sup>3</sup>	
<b>Bulk density</b>		No data available
<b>Liquid Density</b>		No data available
<b>Solubility(ies)</b>	Xylene	
<b>Water solubility</b>	Insoluble in water	
<b>Partition coefficient</b>		No data available
<b>Autoignition temperature</b>	350 °C	
<b>Decomposition temperature</b>		No data available
<b>SADT (°C)</b>		No data available
<b>Kinematic viscosity</b>		No data available
<b>Dynamic viscosity</b>		No data available

**Particle characteristics****Particle Size**

No data available

**Particle Size Distribution**

No data available

**9.2. Other information****Molecular weight**

No information available

**VOC content**

No information available

**Softening point**

No information available

**Information with regards to physical hazard classes****Explosives****Explosive properties**

No information available.

**Oxidising properties**

No information available.

**SECTION 10: Stability and reactivity****10.1. Reactivity****Reactivity**

No information available.

**10.2. Chemical stability****Stability**

Stable under normal conditions.

**Explosion data****Sensitivity to mechanical impact** None.**Sensitivity to static discharge** None.**10.3. Possibility of hazardous reactions****Possibility of hazardous reactions** Reacts violently with fluorine.**10.4. Conditions to avoid****Conditions to avoid**

Excessive heat. Heating in air. Dust formation. 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.

**10.5. Incompatible materials****Incompatible materials**

Fluorine, Strong acids, Strong oxidising agents, Aromatic solvents, Chlorinated solvents.

**10.6. Hazardous decomposition products****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****11.1. Information on toxicological effects****Information on likely routes of exposure**

**Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Dust contact with the eyes can lead to mechanical irritation.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Contact with dust can cause mechanical irritation or drying of the skin.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. May cause irritation of the mouth, throat and stomach.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Product dust may be irritating to eyes, skin and respiratory system.

**Acute toxicity** Based on available data, the classification criteria are not met.

**Numerical measures of toxicity** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

**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** None of the ingredients are known to be an aspiration hazard.

**Other adverse effects** No information available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity** Material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

**12.2. Persistence and degradability**

**Persistence and degradability** No information available.

**12.3. Bioaccumulative potential**

**Bioaccumulation** There is no data for this product.

**12.4. Mobility in soil**

**Mobility in soil** No information available.

**12.5. Results of PBT and vPvB assessment**

**PBT and vPvB assessment** This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not dispose of with household waste. Do not flush to sewer. Do not allow to enter into surface water or drains.

**SECTION 14: Transport information**

<b><u>IATA</u></b>	Not regulated
<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special precautions for user</b>	
<b>Special Provisions</b>	None
<b>Note:</b>	None

<b><u>IMDG</u></b>	Not regulated
<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable

- 14.6 Special precautions for user**  
**Special Provisions** None
- 14.7 Maritime transport in bulk according to IMO instruments** No information available

- RID** Not regulated
- 14.1 UN number or ID number** Not regulated
- 14.2 UN proper shipping name** Not regulated
- 14.3 Transport hazard class(es)** Not regulated
- 14.4 Packing group** Not applicable
- 14.5 Environmental hazards** Not applicable
- 14.6 Special precautions for user**  
**Special Provisions** None

- ADR** Not regulated
- 14.1 UN number or ID number** Not regulated
- 14.2 UN proper shipping name** Not regulated
- 14.3 Transport hazard class(es)** Not regulated
- 14.4 Packing group** Not applicable
- 14.5 Environmental hazards** Not applicable
- 14.6 Special precautions for user**  
**Special Provisions** None

## **SECTION 15: Regulatory information**

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### **National regulations**

##### **Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (UK REACH - Annex XIV). This product does not contain substances subject to restriction (UK REACH - Annex XVII).

##### **Persistent Organic Pollutants**

Not applicable

##### **Export Notification requirements**

Not applicable

##### **Named dangerous substances per COMAH (SI 2015/483 as amended)**

Not applicable

##### **The Ozone-Depleting Substances Regulations 2015**

Not applicable

##### **The Biocidal Products Regulations 2001 (as amended)**

Not applicable

##### **The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)**

Not applicable

##### **Poisons and Explosive Precursors**

Not applicable

#### **International Inventories**

Contact supplier for inventory compliance status

**15.2. Chemical safety assessment**

Chemical Safety Report

No information available

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
EC Number	European Community number
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	Environmental Protection Agency
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organisation
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organisation for Standardisation
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL	International Convention for the Prevention of Pollution from Ships
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
REACH	Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation

	(EC 1907/2006)
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
SVHC	Substance of very high concern
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
Sen+	Sensitiser
Sk*	Skin designation
**	Hazard Designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

#### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
 European Chemicals Agency (ECHA) (ECHA\_API)  
 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)  
 National Institute of Technology and Evaluation (NITE)  
 Australian 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 Library of Medicine's PubMed database (NLM PUBMED)  
U.S. National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Issuing Date** 19-Nov-2024

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**Revision Note** Initial Release

**This SDS complies with the requirements of UK REACH Regulations SI 2019/758 (as amended)**

**Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

**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**