

Safety Data Sheet

According to ABNT NBR 14725-4 Issue date: 14 February 2023 Revision date: 14 February 2023 Version: 1.0

<b>SECTION 1: Identification of Product a</b>	nd Company	
1.1. Product identifier	- High Develop Dehertholese Develop	
Trade name Product code	: High Density Polyethylene Recycled : RPR 7A5 WE	
Recommended use	: Industrial Use, Injection	
1.2. Company identification		
Braskem S.A.		
Rua Eteno, 1561, Polo Petroquímico de Camaçari		
Camaçari, BA, CEP: 42810-000, Brasil +55 (71) 3413-3600		
productsafety@braskem.com		
Emergency number	: CHEMTREC Brazil (Rio De Janeiro): +(55)-2139581449 Portuguese CHEMTREC Brazil (São Paulo): +(55)-1143491359 Portuguese	
	CHEMTREC Brazil: 0800 892 0479 Portuguese +1 703 527 3887 (CHEMTREC International)	
SECTION 2: Hazards identification 2.1. Classification of the substance or mixture		
Classification according to GHS BR (ABNT NBR	14725)	
Chemical product not classified as hazardous accor 2.2. Label elements	rding to ABNT standard 14725-2	
GHS BR labelling		
No labelling applicable		
2.3. Other hazards not contributing to the classi		
	ard. Electrostatic charges may be generated during handling. Dust could be fo g handling, grinding, or conveying operations. Dust may form explosive mixture	
SECTION 3: Composition/information	on ingredients	
3.1. Substances		
3.1. Substances Not applicable		
Not applicable	Product identifier	%
Not applicable 3.2. Mixtures		<b>%</b> < 70
Not applicable 3.2. Mixtures Name	Product identifier	
Not applicable 3.2. Mixtures Name Post Consumer Recycled Polyethylene*	Product identifier CAS-No.: Not applicable	< 70 30 - <60
Not applicable 3.2. Mixtures Name Post Consumer Recycled Polyethylene* 1-butene, polymer with ethene	Product identifier         CAS-No.: Not applicable         CAS-No.: 25087-34-7	< 70 30 - <60 yethylene products
Not applicable 3.2. Mixtures Name Post Consumer Recycled Polyethylene* 1-butene, polymer with ethene Comments SECTION 4: First aid measures	Product identifier     CAS-No.: Not applicable     CAS-No.: 25087-34-7      : * Post Consumer Recycled Polyethylene consists of various recycled polyethylene consists polyethylene consists of various recycled polyethylene consists polyethylene c	< 70 30 - <60 yethylene products
Not applicable 3.2. Mixtures Name Post Consumer Recycled Polyethylene* 1-butene, polymer with ethene Comments	Product identifier     CAS-No.: Not applicable     CAS-No.: 25087-34-7      : * Post Consumer Recycled Polyethylene consists of various recycled polyethylene consists polyethylene consists of various recycled polyethylene consists polyethylene c	< 70 30 - <60 yethylene products 4.
Not applicable 3.2. Mixtures Name Post Consumer Recycled Polyethylene* 1-butene, polymer with ethene Comments SECTION 4: First aid measures 4.1. Description of first aid measures	Product identifier         CAS-No.: Not applicable         CAS-No.: 25087-34-7         : * Post Consumer Recycled Polyethylene consists of various recycled polyincluding the following CAS Numbers: 25087-34-7, 25213-02-9, 9002-88-         : Never give anything by mouth to an unconscious person. If you feel unwerter	< 70 30 - <60 yethylene products 4.
Not applicable 3.2. Mixtures          3.2. Mixtures         Name         Post Consumer Recycled Polyethylene*         1-butene, polymer with ethene         Comments         SECTION 4: First aid measures         4.1. Description of first aid measures         First-aid measures general	Product identifier         CAS-No.: Not applicable         CAS-No.: 25087-34-7         : * Post Consumer Recycled Polyethylene consists of various recycled polyincluding the following CAS Numbers: 25087-34-7, 25213-02-9, 9002-88-         : Never give anything by mouth to an unconscious person. If you feel unwer advice (show the label where possible).	< 70 30 - <60 yethylene products 4.
Not applicable 3.2. Mixtures          3.2. Mixtures         Name         Post Consumer Recycled Polyethylene*         1-butene, polymer with ethene         Comments         SECTION 4: First aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation	Product identifier         CAS-No.: Not applicable         CAS-No.: 25087-34-7         : * Post Consumer Recycled Polyethylene consists of various recycled poly including the following CAS Numbers: 25087-34-7, 25213-02-9, 9002-88-         : Never give anything by mouth to an unconscious person. If you feel unwer advice (show the label where possible).         : Allow affected person to breathe fresh air. Allow the victim to rest.         : After contact with the molten product, cool rapidly with cold water. Do not the molten material from the skin. Burns caused by molten material must	< 70 30 - <60 yethylene products 4. ell, seek medical attempt to remove
Not applicable 3.2. Mixtures          3.2. Mixtures         Name         Post Consumer Recycled Polyethylene*         1-butene, polymer with ethene         Comments         SECTION 4: First aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation         First-aid measures after skin contact	Product identifier         CAS-No.: Not applicable         CAS-No.: 25087-34-7         : * Post Consumer Recycled Polyethylene consists of various recycled poly including the following CAS Numbers: 25087-34-7, 25213-02-9, 9002-88-         : Never give anything by mouth to an unconscious person. If you feel unwer advice (show the label where possible).         : Allow affected person to breathe fresh air. Allow the victim to rest.         : After contact with the molten product, cool rapidly with cold water. Do not the molten material from the skin. Burns caused by molten material must clinically.	< 70 30 - <60 yethylene products 4. ell, seek medical attempt to remove be treated
Not applicable         3.2. Mixtures         Name         Post Consumer Recycled Polyethylene*         1-butene, polymer with ethene         Comments         SECTION 4: First aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation	Product identifier           CAS-No.: Not applicable           CAS-No.: 25087-34-7           : * Post Consumer Recycled Polyethylene consists of various recycled poly including the following CAS Numbers: 25087-34-7, 25213-02-9, 9002-88-           : Never give anything by mouth to an unconscious person. If you feel unwer advice (show the label where possible).           : Allow affected person to breathe fresh air. Allow the victim to rest.           : After contact with the molten product, cool rapidly with cold water. Do not the molten material from the skin. Burns caused by molten material must clinically.           : Immediately flush eyes thoroughly with water for at least 15 minutes. Ren lenses, if present and easy to do. Continue rinsing. Obtain medical attention	< 70 30 - <60 yethylene products 4. ell, seek medical attempt to remove be treated nove contact
Not applicable         3.2. Mixtures         Name         Post Consumer Recycled Polyethylene*         1-butene, polymer with ethene         Comments         SECTION 4: First aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation         First-aid measures after skin contact         First-aid measures after eye contact	Product identifier           CAS-No.: Not applicable           CAS-No.: 25087-34-7           : * Post Consumer Recycled Polyethylene consists of various recycled poly including the following CAS Numbers: 25087-34-7, 25213-02-9, 9002-88-           : Never give anything by mouth to an unconscious person. If you feel unwer advice (show the label where possible).           : Allow affected person to breathe fresh air. Allow the victim to rest.           : After contact with the molten product, cool rapidly with cold water. Do not the molten material from the skin. Burns caused by molten material must clinically.           : Immediately flush eyes thoroughly with water for at least 15 minutes. Ren lenses, if present and easy to do. Continue rinsing. Obtain medical attention or redness persists. Consult an eye specialist.	< 70 30 - <60 yethylene products 4. ell, seek medical attempt to remove be treated nove contact ion if pain, blinking
Not applicable 3.2. Mixtures          3.2. Mixtures         Name         Post Consumer Recycled Polyethylene*         1-butene, polymer with ethene         Comments         SECTION 4: First aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation         First-aid measures after skin contact	Product identifier           CAS-No.: Not applicable           CAS-No.: 25087-34-7           : * Post Consumer Recycled Polyethylene consists of various recycled poly including the following CAS Numbers: 25087-34-7, 25213-02-9, 9002-88-           : Never give anything by mouth to an unconscious person. If you feel unwe advice (show the label where possible).           : Allow affected person to breathe fresh air. Allow the victim to rest.           : After contact with the molten product, cool rapidly with cold water. Do not the molten material from the skin. Burns caused by molten material must clinically.           : Immediately flush eyes thoroughly with water for at least 15 minutes. Ren lenses, if present and easy to do. Continue rinsing. Obtain medical attenti or redness persists. Consult an eye specialist.           : If swallowed, rinse mouth with water (only if the person is conscious). Ob medical attention. Immediately call a POISON CENTER/doctor. Do not in	<ul> <li>&lt; 70</li> <li>30 - &lt;60</li> <li>yethylene products</li> <li>4.</li> <li>ell, seek medical</li> <li>attempt to remove be treated</li> <li>nove contact</li> <li>ion if pain, blinking</li> <li>tain emergency</li> <li>duce vomiting</li> </ul>
Not applicable         3.2. Mixtures         Name         Post Consumer Recycled Polyethylene*         1-butene, polymer with ethene         Comments         SECTION 4: First aid measures         4.1. Description of first aid measures         First-aid measures general         First-aid measures after inhalation         First-aid measures after skin contact         First-aid measures after eye contact	Product identifier           CAS-No.: Not applicable           CAS-No.: 25087-34-7           : * Post Consumer Recycled Polyethylene consists of various recycled poly including the following CAS Numbers: 25087-34-7, 25213-02-9, 9002-88-           : Never give anything by mouth to an unconscious person. If you feel unwer advice (show the label where possible).           : Allow affected person to breathe fresh air. Allow the victim to rest.           : After contact with the molten product, cool rapidly with cold water. Do not the molten material from the skin. Burns caused by molten material must clinically.           : Immediately flush eyes thoroughly with water for at least 15 minutes. Ren lenses, if present and easy to do. Continue rinsing. Obtain medical attenti or redness persists. Consult an eye specialist.           : If swallowed, rinse mouth with water (only if the person is conscious). Ob medical attention. Immediately call a POISON CENTER/doctor. Do not in without medical advice. May cause gastrointestinal blockage. Do not give	<ul> <li>&lt; 70</li> <li>30 - &lt;60</li> <li>yethylene products</li> <li>4.</li> <li>ell, seek medical</li> <li>attempt to remove be treated</li> <li>nove contact</li> <li>ion if pain, blinking</li> <li>tain emergency</li> <li>duce vomiting</li> </ul>

### Safety Data Sheet

According to ABNT NBR 14725-4

According to ABNT NBR 14725-4	
Symptoms/effects after skin contact	: Skin contact with hot material may result in severe burns. Dust from this product may cause skin irritation.
Symptoms/effects after eye contact	: Dusts are mechanical irritants. Dust or fume may cause eye irritation. Effects may include
Sumptomo/offects offer in gestion	discomfort or pain and redness.
Symptoms/effects after ingestion 4.3. Indication of any immediate medical atter	: Choking hazard.
Note to physician :	: Treat as thermal burns. Treat symptomatically.
SECTION 5: Firefighting measures 5.1. Extinguishing media	
Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.
5.2. Special hazards arising from the substan	
Fire hazard	: Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.
Explosion hazard	<ul> <li>Dust could be formed as a result of granule degradation by impact or by abrasion during handling, grinding, or conveying operations. Potential dust explosion hazard from airborne release.</li> </ul>
5.3. Advice for firefighters	
Firefighting instructions Protective equipment for firefighters	<ul> <li>Use water spray or fog for cooling exposed containers. Minimise generation of dust. Knock down/dilute dust cloud with water spray. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.</li> <li>Do not enter fire area without proper protective equipment, including respiratory protection.</li> </ul>
Other information	Wear a self contained breathing apparatus. : Avoid raising powdered materials into airborne dust. Dust may form flammable and
	explosive mixture with air.
SECTION 6: Accidental release meas	sures
6.1. Personal precautions, protective equipme	ent and emergency procedures
General measures	: Minimise generation of dust. Provide adequate ventilation to minimize dust concentrations. Take precautionary measures against static discharge. Avoid contact with skin, eyes and clothing. Spills of this product present a serious slipping hazard. Do not breathe fumes, vapours. Avoid breathing dust.
6.1.1. For non-emergency personnel	
Emergency procedures	: Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.
6.2. Environmental precautions	
Prevent entry to sewers and public waters.	
6.3. Methods and material for containment an	
Methods for cleaning up	: Sweep or shovel spills into appropriate container for disposal. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e, clearing dust surfaces with compressed air). Take precautionary measures against static discharge. Use only non-sparking tools. Store away from other materials. Ensure all national/local regulations are observed. Consult an expert on waste disposal or treatment.
SECTION 7: Handling and storage 7.1. Precautions for safe handling	
Precautions for safe handling	: Warning: may form combustible (explosive) dust - air mixtures. Prevent dust accumulations to minimise explosion hazard. Obtain special instructions before use. Provide good ventilation in process area to prevent formation of vapour. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Keep container closed when not in use. Avoid raising powdered materials into airborne dust. Avoid contact with skin, eyes and clothing. Do not breathe dust, fume, vapours. Minimise dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding,

### Safety Data Sheet

According to ABNT NBR 14725-4

Hygiene measures	<ul> <li>followed. Dust could be formed as a result of granule degradation by impact or by abrasion during handling, grinding, or conveying operations. Potential dust explosion hazard from airborne release.</li> <li>Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. If spilled, may cause the floor to be slippery.</li> </ul>
7.2. Conditions for safe storage, including any in	compatibilities
Technical measures	: Provide adequate ventilation to minimize dust concentrations. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Proper grounding procedures to avoid static electricity should be followed. Use only non-sparking tools.
Storage conditions	: Keep only in the original container in a cool well ventilated place. Keep container closed when not in use. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible materials	: Strong oxidizing agents. Strong acids. Chlorinated solvents.
SECTION 8: Exposure controls/persona 8.1. Control parameters	al protection
No additional information available	
8.2. Exposure controls	
Appropriate engineering controls	: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide local exhaust or general room ventilation to minimize exposure to dust. Provide adequate ventilation to minimize dust concentrations. It

	minimize exposure to dust. Provide adequate ventilation to minimize dust concentrations. 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. 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). Use only appropriately classified electrical
	equipment and powered industrial trucks.
Deve evel whete etime equipment	

### 8.3. Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure. For certain operations, additional Personal Protection Equipment (PPE) may be required.

#### Hand protection:

Wear protective gloves to help prevent mechanical injury. For thermal protection from molten material, wear gloves with insulation. Check the resistance to chemicals and heat when choosing protective gloves

#### Eye protection:

Safety glasses with side shields should be worn when handling pellets. During hot processing, wear tightly fitting goggles and/or face shield when the possibility for eye contact exists

#### Skin and body protection:

Personal protective clothing should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling. When handling molten material, thermally-protective long sleeved clothing, boots and gloves should be worn

#### **Respiratory protection:**

Respirators may be required if respirable and total dust exposure limits are exceeded or irritation is experienced. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. Wear appropriate mask. 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			
Physical state	: Solid		
Appearance	: Pellets/tablets. Granular solid.		
Colour	: Various		
Odour	: Not available		
Odour threshold	: Not available		

### Safety Data Sheet

According to ABNT NBR 14725-4

рН	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flash point	: Not available
Relative evaporation rate (butylacetate=1)	: Not available
Flammability (solid, gas)	: Not available
Explosive limits	: Not available
Vapour pressure	: Not available
Relative vapour density at 20 °C	: Not available
Relative density	: > 0.93 g/cm <sup>3</sup>
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Viscosity, kinematic	: Not available
Viscosity, dynamic	: Not available
9.2. Other information	
Not available	
CECTION 40. Stability and reactivity	
SECTION 10: Stability and reactivity Chemical stability	: Stable at ambient temperature and under normal conditions of use.
Conditions to avoid	: Overheating.
Hazardous decomposition products	: No hazardous decomposition products known at room temperature. On combustion or on
riazardous decomposition products	thermal decomposition (pyrolysis) releases : fume. Carbon monoxide. Carbon dioxide.
Incompatible materials	: Strong oxidizing agents. Strong acids. Chlorinated solvents.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.
-	: The product is non-reactive under normal conditions of use, storage and transport.
Reactivity	: No additional information available
Handling temperature	
SECTION 11: Toxicological information	1
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not available
Acute toxicity (dermal)	: Not available
Acute toxicity (inhalation)	: Not available
Skin corrosion/irritation	: Not available
Serious eye damage/irritation	: Not available
Respiratory or skin sensitisation	: Not available
Germ cell mutagenicity	: Not available
Carcinogenicity	: Not available
Reproductive toxicity	: Not available
STOT-single exposure	: Not available
STOT-repeated exposure	: Not available
Aspiration hazard	: Not available
Potential Adverse human health effects and	: Not expected to present a significant hazard under anticipated conditions of normal use.
symptoms	Contact with hot material - prevent serious burns.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.
11.2. Most important symptoms and effects, both	
Symptoms/effects after inhalation	: Fumes are irritating to the respiratory system. Dust of the product, if present, may cause
	respiratory irritation after an excessive inhalation exposure.
Symptoms/offacts after skip contact	
Symptoms/effects after skin contact	: Skin contact with hot material may result in severe burns. Dust from this product may cause
Currente me leffe etc. often and a contact	skin irritation.
Symptoms/effects after eye contact	: Dusts are mechanical irritants. Dust or fume may cause eye irritation. Effects may include
Sumatama/offecto ofter in gestion	discomfort or pain and redness.
Symptoms/effects after ingestion	: Choking hazard.
SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general	: Material in pellet or bead form may mechanically cause adverse effects if ingested by
	waterfowl or aquatic life.
Ecology - general Hazardous to the aquatic environment, short-term (acute)	

### Safety Data Sheet

According to ABNT NBR 14725-4

Hazardous to the aquatic environment, long-term	: Not available
(chronic)	
Other information	: Avoid release to the environment.
12.2. Persistence and degradability	
High Density Polyethylene Recycled	
Persistence and degradability	This water-insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.
12.3. Bioaccumulative potential	
High Density Polyethylene Recycled	
Bioaccumulative potential	Not established.
12.4. Mobility in soil	
No additional information available	
12.5. Other adverse effects	
Hazardous to the ozone layer	: Not available
Other information	: Avoid release to the environment.
SECTION 13: Disposal considerations	5
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Ensure all national/local regulations are observed. Consult an expert on waste disposal or treatment. Return in the shipping container properly labeled with any valve outlet plugs or caps secured and valve protection cap in place to supplier for proper disposal.
Additional information	: Do not re-use empty containers. Do not dispose of waste into sewer. Do not remove as household garbage. Do not allow to enter drains or water courses.
Ecology - waste materials	: Avoid release to the environment. Prevent contamination of soil, drains and surface waters.
SECTION 14: Transport information 14.1 National and international Regulations	
Not regulated for transport	
14.2 Other information	
No additional information available	
SECTION 15: Regulatory information 15.1. National regulations	
No additional information available	
SECTION 16: Other information	
Other information	: None.

Braskem - SDS\_Brazil (modified 210803)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. It warns that the handling of any chemical substance requires the previous knowledge of its hazards for the user. It is up to the user of the product company providing this SDS to and promote the training of its employees about possible risks come upon of the product. The information contained herein is not absolute, but only general information on the use of the chemical and indication of safety and security measures.