



Safety Data Sheet

Product Type
High Density Polyethylene

Product Name
HD- EX3-100s

License Grade Code
HM CRP 100 B

INTERNAL

Issue date : 1 May 2025 (Revision 1.0.4)

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

Product Type	Chemical Family	Synonyms	Relevant identified uses
High-Density Polyethylene (HDPE)	Polyolefin	Polyethylene, PE-HD	Industrial use

Details of the supplier of the safety data sheet : **MYRIAD PTY LTD**
Emergency telephone number: +27107861324

Section 2: Hazard Identification

Classification

Not hazardous according to GHS criteria for solid products in their supplied form.

Label Elements

No signal word, hazard statement, or pictogram required for solid HDPE.

- May emit hazardous fumes when heated or processed at elevated temperatures.
- Dust from mechanical operations may cause respiratory irritation.

Section 3: Composition/Information on Ingredients

- Chemical Name: High-Density Polyethylene
- CAS Number: 9002-88-4
- Content: 98–100%
- Additives: May contain small amounts of heat stabilizers, antioxidants, colorants, etc.

Section 4: First-Aid Measures

Inhalation

If exposed to fumes from overheating or combustion, move the person to fresh air. Seek medical attention if symptoms persist.

Skin Contact

Molten material can cause severe burns. If contact occurs, cool the affected area with water. Do not attempt to remove solidified plastic from the skin. Seek medical attention.

Eye Contact

Flush eyes with plenty of water for at least 15 minutes. If irritation persists, seek medical attention.

Ingestion

Unlikely to be hazardous. If swallowed, seek medical advice.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media

Water spray, dry chemical, foam, or CO₂ extinguishers.

Hazardous Combustion Products

Carbon monoxide, carbon dioxide, other organic compounds.

Special Fire-Fighting Procedures

Firefighters should wear self-contained breathing apparatus (SCBA) and full protective gear.

Unusual Fire and Explosion Hazards

Fine dust may form explosive mixtures with air.

Section 6: Accidental Release Measures

Personal Precautions

Avoid generating dust. Use appropriate personal protective equipment (PPE).

Environmental Precautions

Prevent material from entering waterways. Sweep up and dispose of properly.

Methods for Cleanup

Collect mechanically. Avoid creating dust.

Section 7: Handling and Storage

- Use with adequate ventilation.
- Avoid contact with molten material.
- Store in a cool, dry, well-ventilated place, away from direct sunlight and strong oxidizers.
- Practice good industrial hygiene—wash after handling.

Section 8: Exposure Controls/Personal Protection

Exposure Limits

No specific occupational exposure limits for solid HDPE.

Engineering Controls

Use local exhaust ventilation when processing at elevated temperatures.

Personal Protective Equipment (PPE)

- Respiratory Protection: Not required under normal use. Use NIOSH-approved respirators if dust or fumes are generated.
- Hand Protection: Heat-resistant gloves when handling hot or molten material.
- Eye Protection: Safety glasses with side shields; face shield if handling molten material.
- Skin Protection: Protective clothing as necessary to prevent contact with hot material.



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Section 9: Physical and Chemical Properties

Product Description

HMCRP100 B is a high-density polyethylene compound. It is Natural outstanding ESCR, high impact strength, outstanding hydrostatic strength. This product is in pellet form with black colour.

Applications

- Pipe extrusion, Industrial and pressure pipe, drinking water pipe, relining, fitting

Physical Properties

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Melt Index (190°C, 5kg)	ISO 1133	g/10min	0.26 ± 0.04
Density	ISO 1183	g/cm³	0.955 ± 0.005
FRR (21.6/5)	ISO 1133	g/10min	≥ 24
Carbon Black Content	ISO 3451	%	2.3 ± 0.2
Carbon Black Dispersion	ISO 18553	Grade	≤ 3

* Typical values are provided for reference only and should not be construed as specifications

Mechanical Properties

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Tensile Strength @ Yield	ISO 527	MPa	≥ 22
Elongation @ Yield	ISO 527	%	9 ± 1
Tensile Strength @ Break	ISO 527	MPa	≥ 34
Elongation @ Break	ISO 527	%	≥ 700
Hardness Shore D	ISO 868	Points	≥ 58
Hydrostatic Strength @ 80°C (165 hr)	ISO 1167	Hour	165
E.S.C.R. (1000 hr)	ASTM D1693	-	No crack / No fracture

* Typical values are provided for reference only and should not be construed as specifications

Thermal Properties

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
O.I.T. @ 210°C	ISO 11357	Minute	≥ 30

* Typical values are provided for reference only and should not be construed as specifications

- Appearance: Black pellets, granules, or powder
- Odor: Odorless
- Boiling Point: Not applicable
- Solubility: Insoluble in water
- Vapor Pressure: Not applicable
- pH: Not applicable

Section 10: Stability and Reactivity

- Chemical Stability: Stable under recommended storage and handling conditions.
- Conditions to Avoid: Excessive heat, direct sunlight, and strong oxidizers.
- Incompatible Materials: Strong oxidizing agents.
- Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, hydrocarbons, and other organic compounds when burned or decomposed at high temperatures.

Section 11: Toxicological Information

- Solid HDPE is considered non-toxic under normal use.
- Dust may cause mechanical irritation to the respiratory tract, eyes, and skin.
- Inhalation of fumes from overheating or combustion may cause respiratory irritation or other adverse health effects.

Section 12: Ecological Information

- HDPE is generally considered inert and does not readily biodegrade.
- Not expected to be hazardous to aquatic life in solid form, but pellets may be ingested by wildlife.
- Avoid environmental release; dispose of properly.

Section 13: Disposal Considerations

- Recycle where possible.
- Dispose of in accordance with local, regional, and national regulations.
- Do not incinerate except at approved and controlled facilities due to potential hazardous emissions.

Section 14: Transport Information

- UN Number: Not regulated as a dangerous good.
- DOT, IATA, IMDG: Not classified as hazardous for transport.



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Section 15: Regulatory Information

- HDPE is not classified as hazardous under global transport and workplace regulations.
- Check applicable regulations for additional requirements specific to your location or application.

Section 16: Other Information

- This Safety Data Sheet is provided for guidance and informational purposes only.
- The data described in this SDS are based on current knowledge as of the date of preparation and are subject to change as new information becomes available.
- Users are responsible for the safe handling and proper use of the product.