

**Safety Data Sheet –
Ducor Polypropylene Impact and Random Copolymers
According to Regulation (EC) No 1907/2006 (REACH), Article 31**

1. Identification of substance

Trade name	DuPure® (Polypropylene Impact and Random Copolymers) Grades: DuPure® SH 50, SL 50, SR 76, ST 76 V, SL 76 A, SM 76 A, SU 76 A, SU 76 AV, SW 76 AV, SR 79, ST 77 A, SU 77 AV, SY 77 AV, SU 77 A, TE 76, TM 76 V, TM 76, TR 76 V, TU 76 V, TT 79 V, QM 49, QG 49, QE 49, QL 50, QE 50, QE 50 E, QR 50, QW 76 AV.
	DuClear® (Polypropylene Random Copolymers) Grades: DuClear® QG 80 A, QR 80 A, QT 80 A, QU 80 A, QW 80 AV, QY 80 AV, CE 85 B.
Identified uses	Manufacture of plastic articles by injection molding, extrusion or other conversion process
Prohibited used	Applications involving permanent implantation into the body, European Class III & FDA Class III medical devices
Manufacturer	Ducor Petrochemicals B.V. Merseyweg 24 3197KG Botlek - Rotterdam the Netherlands
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2. Hazards Identification

Classification & Labeling	This product is not classified as hazardous according to EEC directives 67/548/EEC, 1999/45/EC. This product is not classified as hazardous according to EC regulations 1907/2006/EC, 1272/2008/EC, and following amendments.
Information pertaining to particular dangers for man and environment	Fine dust may cause irritation of respiratory system and mucous. Contact with hot (molten) material – risk of serious burns. If heated to more than 160°C, the product may form vapors or fumes which may cause irritations of respiratory tract and cause coughing and sensation of shortness of breath. Handling this product may result in electrostatic accumulation. Use proper grounding procedures Dust may form explosive mixture in air. Combustible dust

3. Composition/Information on Ingredients

Chemical Name	1-Propene, polymer with ethene
Chemical Formula	C ₃ H ₆) _x - (C ₂ H ₄) _y
CAS No. Designation	9010-79-1
Description	Mixture of 1-Propene, polymer with ethene, with additives/stabilisers

4. First Aid Measures

General information	Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid.
After inhalation	Exposure to spray, fumes and vapours produced by heated or burned product: Move to fresh air. Call for medical help.
After skin contact	After contact with the molten product, cool rapidly with cold water. Do not pull solidified product away from the skin. Seek immediate medical advice.

**Safety Data Sheet –
Ducor Polypropylene Impact and Random Copolymers
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After eye contact	Immediately rinse with water for a prolonged period while holding the eyelids wide open. In case of irritation caused by fine dust: wash with copious volumes of water, until the irritation disappears. In case of eye contact with molten polymer: continuously flush eye(s) with cool running water for at least 15 minutes. Beyond flushing, do not attempt to remove the material adherent to the eye(s). Immediately seek medical attention
After swallowing	No specific measures have to be taken if the product is swallowed.

5. Fire fighting measures

Suitable extinguishing agents	For small fire: Carbon dioxide. Dry powder. Water spray.
Unsuitable extinguishing agents	For large fire: Foam.
Specific hazards during fire fighting	Solid water jet/stream Keep away from heat and sources of ignition. In case of fire hazardous decomposition products may be produced such as: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). The formation of hydrocarbons and aldehydes are possible in the initial stages of a fire (especially in between 400 and 700°C)
Protection during firefighting	Wear approved positive pressure self-contained breathing apparatus and firefighter protective clothing.
Additional information	Combustible particulate solid, will decompose under fire conditions. Calorific Value: 8000 - 11000 kcal/kg Fight fire from safe distance with hose lines or monitor nozzles. Heat from fire may melt, decompose polymer, and generate flammable vapors. Move containers from fire area if it can be done without risk. Evacuate immediately in the event of opening of storage container pressure relief devices or discoloration of container. Always stay away from tanks engulfed in fire. Do not attempt to get on top of storage containers involved in fire. Cool storage containers with large volumes of water even after fire is out.

6. Accidental Release Measures

Person-related safety precautions	Creates dangerous slipping hazard on any hard smooth surface. Avoid generating dust. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Potential combustible dust hazard.
Measures for environmental protection	Do not flush into surface water or sanitary sewer system
Measures for cleaning/collecting	On land, sweep/shovel into suitable disposal containers or vacuum using equipment which avoids ignition risk. On water, material is insoluble; collect and contain as any solid. All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible.

7. Handling and Storage

Information for safe handling	Handle in accordance with good industrial hygiene and safety practice. Provide for appropriate exhaust ventilation and dust collection at machinery. Minimize 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, or inert atmospheres.
Requirements for storage areas and containers	Storage facilities must fulfill all fire safety requirements for buildings, and all electrical appliances must be compliant with the applicable regulations. Store

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in a dry, cool, well-ventilated area. Protect from heat and direct sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Proper grounding procedures to avoid static electricity should be followed. Prevent accidental release of the material in the environment during storage

8. Exposure Controls and Personal Protection

**Control parameters:
Components with
workplace control
parameters**

Occupational Exposure Limits

Ingredients	Source	Type	Limit value
Materials that can be formed when handling this product: Non specified (inert or nuisance) dust	US - ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ inhalable 3 mg/m ³ respirable

Consult local authorities for acceptable exposure limits

**Exposure controls
Engineering measures**

Ensure good ventilation of the work place. If handling results in dust generation or high temperatures, local exhaust ventilation should be provided to insure that exposure to dust or decomposition products does not exceed the exposure recommended levels. Safety shower. Eye fountain.

Personal protective equipment

**General protective and
hygienic measures
Respiratory protection**

Dustproof clothing. Gloves. Safety glasses. Dust formation: dust mask. Do not eat, drink or smoke during use
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use appropriate respiratory protection where atmosphere exceeds recommended limits. Where workers could be exposed to dust concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Protective gloves. When handling hot material, wear heat-resistant protective gloves that are able to withstand the temperature of molten resin.

Eye protection

Safety glasses with side-shields.

Skin & Body protection

Wear suitable clothing. Safety foot-wear

9. Physical and Chemical Properties

Physical state	Solid
Appearance	Pellet / Granule
Colour	Translucent to white
Odor	Slight
Melting point/range	120-170°C
Boiling point/range	Decomposition starting from 300°C
Autoignition temperature	> 300°C
Lower explosion limit	The minimum explosive concentration (MEC) for polymer dust varies according to particle size distribution
Density	0.89-0.91 g/cm ³
Solubility in water	Insoluble
Bulk Density	400-600 kg/m ³

10. Stability and Reactivity

Reactivity

Electrostatic charges may be generated during handling. Take precautionary measures against static discharge during blending and transfer operations.

Chemical Stability

The product is stable at normal handling- and storage conditions

Possibility of hazardous

Dust may form explosive mixture in air.

**Safety Data Sheet –
Ducor Polypropylene Impact and Random Copolymers
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reactions

Conditions to Avoid	No flames, no sparks. Eliminate all sources of ignition. Avoid temperature above 300°C.
Materials to avoid	Strong acids. Strong bases. Strong oxidizing agents. Halogens.
Hazardous decomposition products	Not expected to decompose under normal conditions.
Thermal decomposition	Carbon monoxide, olefinic and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes and alcohols may be formed.

11. Toxicological Information

Acute oral toxicity	Not classified
Skin corrosion/irritation	Not classified Heated product causes burns. Thermal decomposition products are produced at elevated temperatures and these may be irritating
Serious eye damage/irritation	Not classified Fine dust may cause irritation to ocular mucous. Thermal decomposition products are produced at elevated temperatures and these may be irritating. Heated product causes burns.
Respiratory or skin sensitisation	Not classified
Cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified Dust may cause irritation of respiratory system. If heated to more than 160°C, the product may form vapours or fumes which may cause irritation of respiratory tract and cause coughing and sensation of shortness of breath
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

12. Ecological Information

Ecotoxicity Effects	Ecological damages are not known or expected under normal use. Small particles can have an effect on water and soil organisms.
Persistence and degradability	Product persists. Not expected to be biodegradable.
Bioaccumulation	This product is not expected to bioaccumulate
Mobility in soil	Low mobility. The product is not volatile, and insoluble in water
Results of PBT assessment	Not determined
Other adverse effects	No additional information available

13. Disposal Considerations

Waste treatment methods	All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible. Recycle if possible.
Additional information	Incinerate with household refuse in a municipal solid waste incinerator plan.

14. Transport Information

Transport Classification	The substance is not classified as dangerous according to relevant transport regulations.
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15. Regulatory Information

EC regulations See the Regulatory Affairs Product Information Datasheet (RAPIDS) of the product on www.ducorchem.com

16. Other Information

Further information Conforms to Regulation (EC) No 1907/2006 (REACH), Article 31.

Disclaimer:

The information contained in the Safety Data Sheet is at the date of its issuance to the best of our knowledge correct according to the data available to us. The information is meant as a guideline for safe use, handling, disposal, storage and transport of products and does not imply any warranty (not implied nor explicitly) or specification. The Supplier shall to the extent permitted by law not be liable for any error or incorrectness in the information contained in this Safety Data Sheet. The information relates exclusively to the specified products, which may not be suitable for combination with other materials or use in processes other than those specifically described here.

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