

Material Safety Data Sheet

(According to EU commission regulation 1907/2006/EC - REACH - and regulation EC 2020/878)

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Section 1: Substance and Company Identification

1.1 Product Name: **rLDPE regranulate**

1.2 Relevant Use of the product: The regranulate is based on the recycling of plastic post-consumer waste sources and is used for the manufacturing of recycled plastic articles by different transformation technologies such as injection moulding, extrusion and others.

1.3 Supplier: **Fromto**
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3500 Hasselt
België
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info@fromto.be

1.4 Emergency number: + 32 (0)11 52 04 30

Section 2: Identification of Hazards

2.1 Classification of the product

Classification in conformity with EC 1272/2008 (CLP):

The product is not classified as dangerous or hazardous. It consists of neutral polymers where all components are encapsulated within the polymer matrix.

2.2 Labelling (CLP)

Hazards and safety instructions: not applicable

2.3 Other Hazards which don't result in CLP Classification:

Emergency overview:

- Irritating vapours to respiratory system and eyes may form when the polymer is processed at high temperatures
- Molten or heated material can cause severe burns

Potential acute health effects by entry route:

- Eyes: Dust may cause mechanical irritation
Heated polymer: may cause severe burns
Vapours formed when polymer is heated may be irritating
- Skin: No known acute effects resulting from skin contact at room temperature
Hot molten polymer: skin contact can cause severe burns
- Inhalation: Negligible at room temperature.
Irritating vapours may be formed when polymer is processed at high temperatures
- Ingestion: No effects expected for ingestion of small amounts

Potential Chronic health effects:

- The product contains no substances which at their given concentration, are considered to be hazardous to health, neither carcinogenic nor mutagenic.
- See Toxicological information (section 11)

Section 3: Composition

The rLDPE regranulate is based on the recycling of plastic post-consumer waste sources:

Polyethylene:	CAS n°: 9002-88-4	>= 70%
Polypropylene:	CAS n°: 9010-79-1	<= 20%
Other polymers and additives:		<= 10%
Mineral fillers <i>such as talcum, limestone, pigments</i>		<= 5%
Others:		<= 3%

Statement on the presence of dangerous substances in the regranulate in relation with the EC Directives:

- *The regranulate doesn't contain substances that are on the SVHC and the Authorisation list from the ECHA, in quantities exceeding 0,1%, as for seen in the Reach regulation. These lists are updated twice a year, and are followed up by Fromto.*
- *The rLDPE regranulate is fully compliant with the EC2006/1907 and the EC2019/1021.*
- *The regranulate fulfils the Packaging Directive EC94/62 with respect to the content of heavy metals (sum of Cd-Pb-Hg-Cr6+ < 100 ppm)*

Section 4: First Aid Measures

4.1 Description of first aid measures

- Eye contact: Rinse with streaming water for several minutes. Seek medical assistance if necessary
- Skin contact: No known effect, rinse with water

Heated polymer: for serious burns, seek medical assistance and flush immediately with clean cold water for several minutes
- Inhalation: Negligible effect at room temperature

Allow the person to rest in a well-ventilated area
- Ingestion of small amounts: No first aid procedures needed

4.2 Most relevant acute and retarded symptoms and effects:

Skin and eye irritation

4.3 Immediate medical required intervention and care:

Symptomatic treatment: show this SDS to the physician

Section 5: Fire Fighting Measures

Flammability: combustible at high temperatures

Auto ignition temperature: > 400°C

Caloric value: circa 40 MJ/kg

Flash points: > 200°C

See also section 10

5.1 Firefighting media:

- Small fire: use ABC powder, water spray, fog

- Large fire: water spray or fog, no water jet

Product may re-ignite itself after the fire is extinguished

5.2 Special hazards

Fire may produce irritating gases and dense smoke. Products of combustion: carbon monoxide, carbon dioxide, water, soot

Explosion hazards: dust of small particle size in the air may create dust explosion

5.3 Instructions for firefighters:

Use self-contained breathing apparatus, and full protective equipment

Section 6: Accidental Release Measures

6.1 Personal Protection while handling the product: see section 8

6.2 Environmental Precautions:

Don't allow spilled granules to enter into waterways, sewers or drains

6.3 Cleaning Methods:

Small spill: normal housekeeping to be maintained (sweep, shovel, vacuum cleaning)

Large spill: shovel dry and put in convenient waste disposal containers.

Spilled granules on the floor may cause severe slipping.

Section 7: Handling and Storage

7.1 Handling:

Avoid contact with molten product at high temperatures $\geq 130\text{ }^{\circ}\text{C}$

During transportation by pneumatic material handling systems, dust may be generated: see Personal Protection Information in section 8.

Dissipate static electricity by grounding and bonding of equipment and containers before transportation.

7.2 Storage:

Store in cool and well-ventilated place, away from extreme heat and sources of ignition.

Section 8: Exposure Controls / Personal Protection

8.1 Engineering controls:

Use process enclosures where needed, use adequate ventilation systems to reduce exposure

8.2 Personal Protection:

Inhalation: Use P2 mask in case of dust

Eyes: Use safety glasses with side shields

Body: Use adapted work clothing

Hands: Use thermally insulated gloves when handling hot material

Feet: Safety shoes

Personal Hygiene:

Don't eat, drink or smoke in the working area.

Wash hands before the eating breaks and at the end of the work.

Section 9: Physical and Chemical Properties

9.1 Information on physical and chemical basic properties

Physical form:	Solid, pellets (granules)
Colour:	Dark grey coloured
Odour:	Slight paraffin smell, and possible smell of decomposition products at elevated temperatures (See 8.2)
Melting point:	> 80°C
VOC:	negligible, the regranulate doesn't contain VOC's that are on the SVHC and the Authorisation list from the ECHA, in quantities exceeding 0.1%
Solubility in Water:	Insoluble
Specific Gravity:	0,94 – 0,98 g/cm ³

9.2 Other information

Bulk density:	circa 0,5-0.6 kg/litre
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Section 10: Stability and Reactivity

10.1 Stability and Reactivity:	Stable in normal conditions; avoid temperatures > 300°C
10.2 Chemical Stability:	Chemically stable in normal conditions
10.3 Potential dangerous reactions	Fine dust may form explosive air/dust mixture
10.4 Circumstances to avoid:	Fine dust Open fires
10.5 Chemical interactions:	Strong oxidising agents

10.6 Hazardous decomposition products:

Decomposition products depend on temperature, exposure to air, and the presence of other substances (temperatures > 300°C, fire etc...). 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.

Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11: Toxicological Information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute Toxicity to Animals and Humans: very low

LD50 Rat, Oral: > 5000 mg/kg

Chronic Effects on Humans: not listed as carcinogen or mutagenic, based on the chemical structure and the available data

11.2 Information on other hazards:

Other Toxic Effects on Humans: not considered as dangerous based on the chemical structure and the available data

Section 12: Ecological Information

12.1 Eco toxicity: Avoid release to the environment. The product will not bio accumulate through the food chains in the environment

12.2 Biodegradation: The product will not biodegrade. Degrades slowly in the environment

12.3 Bio Accumulation: Avoid release to the environment

12.4 Mobility: According to the physicochemical properties, the product is not soluble in water and as a matter of fact, has low soil mobility

12.5 PBT zPzB Evaluation: The product doesn't fulfil the PBT and ZPZB criteria

12.6 Hormonal disruptive and endocrine disruptive effects:

No relevant data available; LDPE and r-LDPE are not listed.

Section 13: Disposal Considerations

13.1. Waste treatment methods

Recycling:	The product and its manufactured articles are thermoplastic, and can be easily mechanically or chemically recycled
Waste information:	Only if recycling is impossible, the product can be transferred to approved disposal areas or incineration facilities, according to local government regulations

Section 14 Transportation Information

Standard packaging of the product: Polypropylene Big Bags.

Labelling of the Big Bags according to EC regulations 2008/1272 (CLP): no GHS labels

Local (National and EU) regulations on safe loading of the trucks apply in all cases.

Not to be considered as hazardous for transportation by road.

The product is not considered as a marine pollutant.

Section 15 Regulations

15.1 Specific safety, health and environmental legislation:

Consult national and European legislations

15.2 Chemical safety evaluation:

Not required for this product

Section 16 Other Information

Used standards and abbreviations:

EC 1907/2006	Reach
EC 878/2020	Reach consolidated
EC 1272/2008	CLP
GHS	Global Harmonized Security
EC 94/62	Packaging directive
PBT	Persistent/Bioaccumulation/Toxic
zPzB	very Persistent/very Bioaccumulating

Notice to the reader of this Safety Data Sheet:

To the best knowledge, the information in this document is accurate. Final determination of suitability of any material is the responsibility of the user. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The supplier does not assume any liability for the suitability of any material nor for Unknown Hazards.