Material Safety Data Sheet

According to REACH Regulation (EC) No. 1907/2006 and CLP Regulation (EC) No. 1272/2008

PCR LDPE Regranulate natural

Product Code: 170401

Issue Date: 22.05.2025 Last Revision Date: n/a

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY	
1.1 Product Identifier	
Trade name	LDPE Regranulate natural ex. film
Product Code	170401
Chemical nature	Low-Density Polyethylene (100% PCR)
Chemical formula	$(C_2H_4)n$
Molar mass	28.0532 g/mol
Components contributing to the hazard	Not relevant
CAS Number	9002-88-4
EC Number	926-220-5
REACH Registration Number	This substance is exempt from REACH registration under Article 2 (9) of REACH
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Identified uses	Regranulate used for film blowing and production of other LDPE plastic products.
Uses advised against	Not suitable for medical implants, direct food contact without specific approval, or applications requiring high chemical resistance.
1.3 Details of the supplier of the safety data sheet	
Company	Sinox Polymers GmbH
Address	Grünenweg 5-7, 28195 Bremen, Germany
Telephone	+49 178 8175 168
Email	inquiries@sinox-polymers.com
1.4 Emergency telephone number	

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General number for medical emergency	112
Emergency poison number (for Bremen)	05 51 19 240

SECTION 2: Hazards identification	
2.1 Classification of the substance or mixture	
According to Regulation (EC) No. 1272/2008 (CLP), the product is **not classified as hazardous**.	
2.2 Label elements	
Hazard pictograms	None
Signal word	None
Hazard statements	Not applicable
Precautionary statements	· P261: Avoid breathing dust or fumes. · P280: Wear protective gloves when handling molten material. · P501: Dispose of contents/container in accordance with local regulations.
2.3 Other hazards	
Dust explosion risk	Fine dust may form explosive mixtures with air. Handling of fines below 125µm may require explosion protection measures.
Thermal hazards:	Vapors and fumes generated at high processing temperatures may cause irritation to eyes, nose, throat, and respiratory tract.
Other hazards	In molten state [hot product] in contact with skin and eyes may cause severe burns. Ingestion of a small amount should not pose a hazard Substances contained in the product do not meet the PBT or vPvB criteria according to Annex XIII of the Regulation PBT substances (persistent, bioaccumulative and toxic substances) vPvB substances (substances with very high persistence and very high bioaccumulation potential) REACH. The product does not contain substances on the list established in accordance with Article 59 (1) for

	endocrine disrupting properties or substances identified as having endocrine disrupting properties in accordance with the criteria set forth in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 in concentrations equal to or greater than 0.1% by weight.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name	Low Density Polyethylene - 99.2% proportion
CAS Number	9002-88-4
EC Number	926-220-5
Substance name	Linear Low Density Polyethylene - < 1% proportion
CAS Number	25087-34-7
EC Number	607-541-7
Hazardous impurities	None known

SECTION 4: First-aid measures

4.1 Description of first-aid measures

Inhalation	When fumes of molten material have been inhaled; (1) Move person to fresh air as quickly as possible; (2) rest in half upright position; (3) loosen clothing; (3) keep warm. In case of respiratory problems move person to first aid station for medical treatment.
Skin contact	Any molten material on the skin/burns should be cooled (off) as quickly as possible by means of cold water. Cover the wound with sterile cloth and move person to first aid station or hospital for medical treatment. Attention: never pull off the molten material from the wound.

Eye contact	Rinse eyes immediately with water for at least 15 minutes. Seek medical attention.
Ingestion	Rinse mouth, do not induce vomiting. Immediately seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation of fumes may cause irritation, headache, nausea.

Contact with molten polymer may cause burns.

4.3 Indication of any immediate medical attention and special treatment needed

No specific antidote known. Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable	Water spray, foam, CO_2, dry chemical powder
Unsuitable	High-pressure water jet

5.2 Special hazards arising from the substance or mixture

During combustion, mainly carbon dioxide and water vapor are emitted. The product melts under the influence of temperature. Combustion is accompanied by smoke and combustion products of technological additives. The molded parts or hard regranulate burn slowly with low smoke concentration, burning droplets and with the release of carbon monoxide and organic substances.

5.3 Advice for firefighters

Use personal protective equipment appropriate to the fire. Follow normal firefighting procedures. Wear appropriate chemical resistant protective clothing and self-contained breathing apparatus (SCBA) in the fire area. In case of fire, cool endangered containers with water. Do not allow leakage into surface or ground water.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel: Restrict unauthorized access to the accident area until appropriate cleanup operations are completed. For large spills, isolate the affected area. Avoid direct contact with the releasing product. Avoid inhalation of vapors. Use personal protective equipment. Avoid contact with eyes and skin. Ensure adequate ventilation. Beware of spilled granules, may cause slipping and falling. For emergency responders: Ensure that only trained personnel carry out the removal of the accident and its consequences. Use personal protective equipment.

6.2 Environmental precautions

In the event of a significant spill of the product, take appropriate measures to avoid spreading into the environment. Notify the responsible emergency services.

6.3 Methods and material for containment and cleaning up

Sweep up the spilled substance and place in suitable containers (suitable bags) or clean containers. Treat the collected material as waste.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure adequate ventilation. Ensure that there is no release into the environment when handling the product. Prevent the product from entering the sewage system, surface and ground water and soil. Work in accordance with safety and hygiene rules. Use personal protective equipment. Do not eat, drink or smoke during use. Wash hands during breaks and after finishing work.

7.2 Conditions for safe storage, including information on any incompatibilities

Store in original, properly labeled containers, in dry areas. Do not expose the material to prolonged storage at temperatures above 80°C and/or UV rays. Do not store or use with incompatible materials (see subsections 10.3-10.5). Do not store together with foodstuffs and animal feed.

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SECTION 8: Exposure controls/ personal protection

8.1 Control parameters

PL: dusts not classified for toxicity

NDS - inhalable fraction 10mg/m3

Legal basis: Ordinance of the Minister of Family, Labour and Social Policy of 12 June 2018 on the maximum permissible concentrations and intensities of harmful factors for health in the working environment Journal of Laws 2018.1286 of 2018.07.03 as amended[Journal of Laws 2020.61, dated 17.01.2020]. Ordinance of the Minister of Development, Labour and Technology of 18 February 2021 amending the Ordinance on the maximum permissible concentrations and intensities of factors harmful to health in the working environment [Journal of Laws 2021, item 325].

Regulation of the Minister of Health of 2 February 2011 on tests and measurements of harmful factors for health at work (Journal of Laws No. 33, item 166, 2011; amended by Journal of Laws 2022.2662).

DNEL/PNEC: No data available

8.2 Exposure controls

Relevant technical control measures

Necessary local exhaust ventilation and general ventilation of the room during production process

Individual protection measures, such as personal protective equipment

When the concentration of the substance posing a risk is established and known, personal protective equipment should be selected taking into account the concentration of the substance present in the work place, the length of exposure, the activities carried out by the worker and the recommendations given by the manufacturer of the personal protective equipment. In an emergency situation or when the concentration of the substance in the workplace is not known, use personal protective equipment isolating the body (gas-tight suit combined with isolating respiratory protective equipment). Industrial hygiene: General industrial hygiene regulations apply. Remove contaminated clothing at the end of work. Wash hands and face before breaks. Do not eat, drink or smoke while working. Keep suitable fire extinguishing agents in close proximity to the work area if heat treatment or high temperature processes are required. Hand and body protection Use protective gloves against mechanical and thermal hazards and work boots and clothing. Use protective aprons and special footwear when handling the product thermally. The resistance of the glove materials must be checked before use. The permeation time of the glove must be obtained from the glove manufacturer and such time must be observed. It is recommended to change gloves regularly and to replace them immediately if there are any signs of wear, damage (tears, perforations) or changes in appearance (colour, elasticity, shape) Eye protection Safety goggles recommended if there is a danger of eye contamination.. Respiratory protection Not required if properly ventilated. In case of working in confined spaces and risk of dust formation, wear a mask

with dust filter (type P). Ventilation should be installed wherever melting of the material, grinding or processing of the product takes place, any processes involving the generation of high temperatures (e.g. extrusion)

8.3 Recommended monitoring procedures

Procedures for monitoring concentrations of hazardous components in air and procedures for control of air cleanliness in the workplace should be applied - if available and justified at the workplace - in accordance with relevant Polish or European Standards taking into account the conditions prevailing at the place of exposure and appropriate measurement methodology adapted to the working conditions. The mode, type and frequency of tests and measurements should meet the requirements contained in the Ordinance of the Ministry of Health of 2 February 2011. (Journal of Laws 2011 No. 33, item 166).

8.4 Control of environmental exposure

Prevent entry into municipal water and sewer systems and watercourses. Any emissions from ventilation systems and process equipment should be checked to determine compliance with the requirements of environmental legislation.

SECTION 9: Physical and chemical properties	
Physical state	Solid at 20℃
Appearance	Pellets
Color	translucent, natural
Odor	odourless
Flashpoint	no data available
Form	Granulate
Flammability of materials	non-flammable solid, the material does not ignite and not propagate combustion
Density	0.925 g/cm³
Solubility in water	Insoluble
Dust explosive properties	
Lower explosion limit	< 10g/m³ air (fines < 125µm)
Dust explosion class (st)	St 1 (fines)

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SECTION 10: Stability and reactivity
Reactivity: Stable under normal conditions.
Chemical stability: Stable under recommended storage conditions.
Conditions to avoid: Temperatures above 350°C.
Incompatible materials: Strong oxidizing agents.
Hazardous decomposition products: At high temperatures (>350°C), thermal degradation may release carbon monoxide, carbon dioxide, and low levels of aldehydes and volatile hydrocarbons.

SECTION 11: Toxicological information	
Acute toxicity	None (LD50 oral rat >3000 mg/kg) None (LDLo oral mouse 5000 mg/kg)
Skin corrosion/irritation	Not classified as irritating. Exposure to decomposition fumes may cause respiratory irritation in sensitive individuals.
Sensitization	No data available.
Carcinogenicity	No evidence of carcinogenicity.

SECTION 12: Ecological information	
Persistence/degradability	very low UV degradability
Bioaccumulative potential	Low Density Polyethylene is generally considered non-biodegradable and has a low tendency for bioaccumulation.
Mobility in soil	Low mobility
Ecotoxicity	no indication that this material is being a risk to the environment.
Aquatic toxicity	Insoluble non toxic solid material (no water hazard)

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SECTION 13: Disposal Considerations
Dispose of in accordance with local, national, and international regulations.
Do not allow fine particle matter to drain into sewers/water supplies. Do not contaminate bodies of water with fine particles.
Recycling is recommended where possible.

SECTION 14: Transport information	
UN number	Not applicable
Transport hazard class	Not regulated
Packing group	Not applicable

SECTION 15: Regulatory information	
EU Regulations	· This product is not classified as hazardous under CLP Regulation (EC) No. 1272/2008. · Not listed on the REACH SVHC candidate list. Additional national regulations may apply to recycled plastics in specific applications (e.g., food contact materials)

Airborne OELs for inert/nuisance dust		
Standard	**Respirable dust**	**Total dust**
MSHA/OSHA PEL (as inert or nuisance dust)	5 mg/m³	15 mg/m³
ACGIH TLV (as particles not otherwise specified)	3 mg/m³	10 mg/m³
NIOSH REL (as particles not otherwise specified)	-	-

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SECTION 16: Other information	
Version	1.0
Changes from last revision	None so far
Further information	This MSDS is based on available data and does not constitute a guarantee of specific properties.
None of the materials and/or products referenced herein should be used and/or applied in any product, device or material used or for use as human body implant or otherwise within the human body	

Training courses:

Before working with the product, the user should familiarize himself with health and safety rules for handling chemicals and, in particular, receive appropriate job training.