

Safety Data Sheet

in accordance to Regulation (EC) No 1907/2006
(as amended by Commission Regulation (EU) No 453/2010)

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product/Trade name:	Polyethylene of high pressure
Substance name:	➤ Polyethylene ➤ Low density polyethylene (LDPE)
EC Name:	Not available
Index No: (Annex VI to Regulation (EC) No 1272/2008)	Not available
EC No:	Not available
CAS No:	9002-88-4
Molecular Formula:	(C ₂ -H ₄) _x -
REACH Registration No: (assigned under Article 20(3) of Regulation (EC) No 1907/2006)	Polymers are not subject to registration in accordance with provisions of art.2 (9) of REACH regulation. Monomer substance(s) are registered in accordance with provisions of art.6 (3) of REACH regulation as follows: ➤ Ethylene (CAS No. 74-85-1; EC No. 200-815-3) REACH Registration No: 01-2119862951-30- 0000

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses:	Polyethylene is used in production of various polymer materials and articles. Ethylene is registered in accordance with requirements of REACH Regulation as monomer substance for use in polymerization.
Uses advised against:	Not specifically defined.
Exposure scenario(s):	Not required for polymer substances.

1.3. Details of the supplier of the safety data sheet

Manufacturer:	Open Joint Stock Company "Ufaorgsyntez" Ufa, 450037 Republic of Bashkortostan Russian Federation
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SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification according to the criteria of Regulation (EC) No 1272/2008 (CLP Regulation):	Not classified.
Classification according to the DSD/DPD criteria of Annex I of Directive 67/548/EEC and as reported in Regulation (EC) No1272/2008:	Not classified.

2.2. Label elements

Labelling according to the GHS criteria of Regulation (EC) No 1272/2008 (CLP Regulation):	Not required; not classified.
Labelling according to the DSD/DPD criteria of Annex I of Directive 67/548/EEC and as reported in Regulation (EC) No 1272/2008 (CLP Regulation):	Not required; not classified.

2.3. Other hazards

Physical Chemical Hazards:	Fire and Explosion Hazards: <ul style="list-style-type: none">➤ Not flammable.➤ Combustible.➤ Gives off irritating or toxic fumes when heated or burning.➤ Flash point: 341°C (ICSC: 1488, IPCS 2004).➤ Self-ignition temperature: 330-410°C (ICSC: 1488, IPCS 2004).➤ Dust explosion possible if in powder or granular form, mixed with air (ICSC: 1488, IPCS 2004). Chemical Hazards: <ul style="list-style-type: none">➤ Reacts violently with fluorine.➤ Reacts with strong oxidants.
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Human Health Hazards:	<p>No human health hazards were reported for polyethylene. In general, polymers are considered of low toxicological hazard. Because polyethylene has not been tested for toxicity effects completely, a caution is recommended.</p> <p>Eye and Skin Contact:</p> <ul style="list-style-type: none">➤ May cause eye irritation due to nuisance dust.➤ Molten product may cause thermal burns. <p>Inhalation:</p> <ul style="list-style-type: none">➤ Fumes or vapour from heated material may be toxic and/or irritating to eyes, skin, mucous membrane and respiratory tract.
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SECTION 3: Composition/information on ingredients

3.1. Substances Main

constituent(s):

Chemical name	CAS No	EC No	Weight %content
Polyethylene	9002-88-4	Not available	100%

SECTION 4: First aid measures

4.1. Description of first aid measures

General notes:	Consult a physician. Show this safety data sheet to the doctor.
Following inhalation:	Move to fresh air. Keep the affected person at rest and maintain normal body temperature. Obtain medical attention if required.
Following skin contact:	Rinse skin with plenty of water, wash with soap. Refer for medical attention if irritation occurs. If burned by contact with hot molten material, cool burned skin as quickly as possible by immersing in cold water, or applying cold water. Call a physician.
Following eye contact:	Rinse with plenty of water for several minutes as a precaution. Remove contact lenses if easily possible. Refer for medical attention if irritation occurs.
Following ingestion:	Never give anything by mouth to an unconscious person.

	Rinse mouth with water. Give water to drink. Do not induce vomiting. Refer for medical attention if required.
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4.2. Most important symptoms and effects, both acute and delayed

Inhalation:	Fumes or vapour from heated material may be toxic and/or irritating to eyes, skin, mucous membrane and respiratory tract.
Note:	Because polyethylene has not been tested for toxicity effects completely, caution is recommended.

4.3. Indication of any immediate medical attention and special treatment needed

Acute exposure:	No data available. For special medical treatment if required, please, refer to medical professionals.
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SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media:	Extinguish with foam, dry chemical, carbon dioxide or waterspray.
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5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:	Gives off toxic and irritant fumes when heated or burning.
Fire and Explosion Hazards:	<ul style="list-style-type: none">➤ Not flammable.➤ Combustible.➤ Gives off irritating or toxic fumes when heated or burning.➤ Flash point: 341°C (ICSC: 1488, IPCS 2004).➤ Self-ignition temperature: 330-410°C (ICSC: 1488, IPCS 2004).
Unusual fire and explosion hazards:	Thermal decomposition may produce irritating fumes, toxic gases/vapors.

5.3. Advice for firefighters

Special fire fighting procedures:	<ul style="list-style-type: none">➤ Treat the material as a solid that can burn.➤ Avoid unnecessary run-off of extinguishing media, which may cause pollution.
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Personal protection:	<ul style="list-style-type: none">➤ Firefighters must be equipped to prevent breathing of vapors or products of combustion. Wear an approved self-contained breathing apparatus and protective clothing.➤ Self-Contained Breathing Apparatus (SCBA) with appropriate chemical protection suit.➤ Fire fighter's clothing conforming to European standard EN469.
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SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Protective equipment:	Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.
Emergency procedures:	<ul style="list-style-type: none">➤ If employees are required to clean up spills, they must be properly trained and equipped.➤ Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).➤ Wear suitable protective equipment.➤ Avoid dust formation. Avoid breathing vapours, mist or dust.➤ Avoid runoff to sewers or waterways.➤ Use suitable industrial vacuum cleaners to suck up crumbs or dust.➤ Shovel or sweep up spilt material.➤ Avoid generation of dust clouds.➤ Collect in a suitable container for reclaiming or disposal.

6.2. Environmental precautions

Accidental Spills and Releases:	Keep away from drains, surface and ground water
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6.3. Methods and material for containment and cleaning up

For containment:	Prevent further leakage or spillage if safe to do so.
For cleaning up:	<ul style="list-style-type: none">➤ Refer section 6.1➤ Use clean non-sparking tools to collect spilled material.➤ Keep in suitable closed containers for disposal.

6.4. Reference to other sections

Other information:	For more information, refer to Sections 8 and 13 of this Safety Data Sheet.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling 7.1.1.**Protective measures**

Training:	<ul style="list-style-type: none">➤ Any person who comes into contact with the substance needs to be trained in proper handling and safety per applicable federal, state and local laws and regulations.➤ Employers must advise employees of all areas and operations where exposure to the substance might occur.
Measures to prevent fire:	Normal measures for preventive fire protection when handling combustible solid substances. Keep sparks, flames, and other sources of ignition away. No smoking. Take measures to prevent the build up of electrostatic charge.
Measures to prevent aerosol and dust generation:	<ul style="list-style-type: none">➤ Avoid formation of aerosols and mists.➤ Avoid inhalation of aerosols and mist.➤ Avoid contact with skin, eyes and clothing.➤ Use in a well ventilated area.
Measures to protect the environment:	<ul style="list-style-type: none">➤ Do not wash away into sewer.➤ Keep away from drains, surface and ground water. Do not let this chemical enter the environment.➤ If substance has entered a watercourse or sewer, inform the responsible authority.

7.1.2. Advice on general occupational hygiene:

Handling:	<ul style="list-style-type: none">➤ Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, or smoke during work. Wash hands before eating, after handling the substance, before breaks and at the end of workday.➤ Adequate washing facilities, with supplies of mild soap and hand cleansers should be available at all working locations.➤ Wash thoroughly after handling.➤ Avoid breathing vapor or dust.➤ Avoid any contact with hot material.
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7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:	<ul style="list-style-type: none">➤ Store in a cool, dry, well-ventilated location. Separate from oxidizing materials.➤ Store away from direct or indirect sources of heat, prolonged sunlight exposures at all times.<ul style="list-style-type: none">➤ Protect containers against physical damage.➤ Provide appropriate exhaust ventilation at places where dust is formed.
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7.3. Specific end use(s)

Fire/Explosion prevention:	<ul style="list-style-type: none">➤ No open flames. No contact with hot surfaces.➤ Normal measures for preventive fire protection.
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SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

EU Occupational Exposure Limit values:	Polyethylene: No Occupational Exposure Limit values are established.
International Occupational Exposure Limit values:	Polyethylene: No Occupational Exposure Limit values are established.
DNEL/DMEL from the CSR in accordance with REACH regulation:	Polyethylene: No chemical safety assessment (CSA) and/or chemical safety report (CSR) is required in accordance with REACH regulation. No DNEL/DMEL values are proposed.
PNECs from the CSR in accordance with REACH regulation:	Polyethylene: No chemical safety assessment (CSA) and/or chemical safety report (CSR) is required in accordance with REACH regulation. No PNECs are proposed. (Note: All currently adopted by the national/regional competent authority levels on safe exposure to this chemical shall apply).

8.2. Exposure controls

Appropriate engineering controls:	<ul style="list-style-type: none">➤ Engineering controls should be sufficient to reduce exposures to this chemical to the lowest level achievable.➤ Use with adequate ventilation to control dust fumes.➤ Hazard communication:<ul style="list-style-type: none">➤ The transmittal of hazard information to workers is to be accomplished by such means as container labelling and other forms of warning, material safety data sheets, and employee training.➤ Housekeeping and Hygiene Facilities:<ul style="list-style-type: none">➤ The workplace should be kept clean, orderly, and in a sanitary condition. Adequate washing
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	<p>facilities shall be provided and maintained in a sanitary condition. Comply with principles of good industrial hygiene and safety practice. Do not eat, drink, or smoke during work. Wash hands before eating, before breaks and at the end of workday.</p>
<p>Personal Protection</p>	<ul style="list-style-type: none"> ➤ Eye/face protection: Appropriate eye and face protection may be necessary to prevent contact with this substance. Safety goggles. Suitable protective clothing and eye protection should be in accordance with national, or regional standards and regulations. ➤ Skin protection: Handle with appropriate gloves. Gloves must be inspected prior to use. Use proper glove removal method –without touching glove’s outer surface –to avoid skin contact with this product. Heat protective impervious gloves when handling molten product. ➤ Respiratory protection: Use appropriate respiratory protection where protection from nuisance levels of dusts are desired. The determination of appropriate respiratory protection is best performed, on a case by case basis, taking into consideration the exposure conditions of the particular operation. Respiratory protection should be used in accordance with company and applicable national regulatory requirements. Respiratory protection should be used to supplement the engineering controls and work practices. Persons should not be assigned to tasks requiring the use of respirators unless it has been determined they are physically able to perform the work and are trained to use the equipment. ➤ Chemical Protective Clothing: Wear protective clothing, such as long sleeves to minimize skin contact. Wear coveralls when handling molten product.

8.3. Environmental Exposure controls

<p>Measures to prevent exposure:</p>	<ul style="list-style-type: none"> ➤ Apply all necessary Risk Management Measures to ensure compliance with relevant national or regional legislation requirements. ➤ Engineering controls and good work practices. ➤ Regular monitoring for leak detection. ➤ Hazard communication. ➤ Housekeeping and Hygiene Facilities.
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Waste-related Measures:	The transportation, storage, treatment, and disposal of the wastematerial must be conducted in compliance with local regulationsfor hazardous
	wastes. Disposal can occur only in properlypermitted facilities. Check state and local regulation of anyadditional requirements for disposal conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Semitransparent white (or colored), elastic material.
Odour:	Odorless or with characteristic odor.
Odour threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	138°C.
Initial boiling point andboiling range:	No data available.
Flash point:	341°C.
Evaporation rate:	No data available.
Flammability:	Not flammable.
Upper/lower flammability orexplosive limits:	No data available.
Vapour pressure:	No data available.
Vapour density:	No data available.
Relative density:	0.945 -0.955 g/cm ³ (at 20°C)
Solubility(ies):	➤ Insoluble in water and fats. ➤ Soluble in organic solvents above 100°C
Partition coefficient: noctanol/water:	No data available.
Auto-ignition temperature:	330 -410°C
Decomposition temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	Not explosive. Contains no groups associated with explosiveproperties.
Oxidising properties:	Not oxidizing.

9.2. Other information

Henry's law constant	No data available.
(HLC): Conversion factors (in air at 25°C):	No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Hazards:	➤ Incompatible substances: strong oxidizers. ➤ Reacts violently with fluorine.
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10.2. Chemical stability

Stability/ Shelf-life:	➤ Stable under recommended storage conditions. ➤ No hazardous reaction when handled and stored according to provisions.
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10.3. Possibility of hazardous reactions

Special precautions:	Store separated from strong oxidizing agents.
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10.4. Conditions to avoid

Conditions contributing to instability:	➤ Heating above 140°C. ➤ Keep away from heat and sources of ignition.
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10.5. Incompatible materials

Incompatibilities:	Strong oxidizers.
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10.6. Hazardous decomposition products

Hazardous decomposition products:	Thermal decomposition may produce irritating fumes, toxic gases/vapors.
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SECTION 11: Toxicological information**11.1. Information on toxicological effects**

General:	No human health hazards were reported for polyethylene. In general, polymers are considered of low toxicological hazard. Because polyethylene has not been tested for toxicity effects completely, caution is recommended.
Toxicokinetics (absorption, metabolism, distribution and elimination):	No data available.
Acute toxicity:	Experimental data: Inhalation LC50 (mice) = 12000mg/m ³ Oral LDLo (mice) >5000 mg/kg bw
Skin corrosion/irritation:	Molten product may cause thermal burns.
Serious eye damage/irritation:	May cause eye irritation due to nuisance dust.
Respiratory irritation:	May cause respiratory irritation due to nuisance dust.
Respiratory or skin sensitization:	No data available.
Germ cell mutagenicity:	No data available.

Carcinogenicity:	Not considered to be carcinogenic. IARC Overall evaluation: Polyethylene is not classifiable as to its carcinogenicity to humans (Group 3).
Reproductive toxicity:	No data available.
STOT- single & repeated exposure:	No data available.

SECTION 12: Ecological information**12.1. Toxicity**

General:	This material is a water insoluble non-toxic solid substance. There is no indication that this material is a risk to the environment.
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12.1.1. Aquatic Environment

Acute (short-term) toxicity:	<ul style="list-style-type: none">➤ Fish: No data available.➤ Crustacea: No data available.
	<ul style="list-style-type: none">➤ Algae/aquatic plants (Green Algae): No data available.➤ Other organisms: No data available.
Chronic (long-term) toxicity:	<ul style="list-style-type: none">➤ Fish: No data available.➤ Crustacea: No data available.➤ Algae/aquatic plants (Green Algae): No data available.➤ Other organisms: No data available.

12.1.2. Terrestrial Environment

Acute (short-term) toxicity:	<ul style="list-style-type: none">➤ Soil macro-organisms: No data available.➤ Terrestrial plants: No data available.➤ Soil micro-organisms: No data available.➤ Other terrestrial organisms: No data available.
Chronic (long-term) toxicity:	<ul style="list-style-type: none">➤ Soil macro-organisms: No data available.➤ Terrestrial plants: No data available.➤ Soil micro-organisms: No data available.➤ Other terrestrial organisms: No data available.

12.2. Persistence and degradability

Hydrolysis:	No data available.
Phototransformation/photolysis:	No data available.
Biodegradation:	No data available.

12.3. Bioaccumulative potential

Aquatic bioaccumulation:	No data available. Polyethylene is not soluble in water. Moreover, polymers are not likely to cross membranes of aquatic organisms. Therefore, polyethylene is not likely to bioaccumulate in aquatic environment.
Terrestrial bioaccumulation:	No data available.

12.4. Mobility in soil

Known or predicted distribution to environmental compartments:	No data available.
Surface tension:	No data available.
Adsorption/Desorption:	No data available.

12.5. Results of PBT and vPvB assessment

Persistence Assessment:	No data available.
Bioaccumulation Assessment:	Polyethylene is not considered bioaccumulative substance.
Toxicity Assessment:	Polyethylene is not considered toxic substance
Conclusions on PBT or vPvB Properties:	Polyethylene is not considered as bioaccumulative or toxic substance. Therefore, it is not PBT or vPvB substance.

12.6. Other adverse effects

Other adverse effects:	No data available.
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12.7. Additional information

Conclusion on the environmental hazard assessment:	Polyethylene is not classified as a substance hazardous to aquatic environment.
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SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product/ Packaging disposal:	This substance, when discarded or disposed of, may be considered a hazardous waste. The transportation, storage, treatment, and disposal of this waste material must be conducted in compliance with local regulations for hazardous wastes. Disposal can occur only in properly permitted facilities. Check state and local regulation of any additional requirements for disposal conditions.
Sewage disposal-relevant information:	Waste should not be disposed of by release to sewers.

Other disposal recommendations:	Disposal of containers: Please, refer your local/national/regional requirements on disposal.
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SECTION 14: Transport information**14.1. UN number**

UN No:	No data available.
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14.2. UN proper shipping name

UN Proper Shipping Name:	No data available.
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14.3. Transport hazard class(es)

Hazard Class or Division:	No data available.
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14.4. Packing group

UN Packing Group:	No data available.
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14.5. Environmental hazards

Environmental Hazards:	Polyethylene is not classified as a substance hazardous to aquatic environment
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14.6. Special precautions for user

Note:	A number of restrictions may apply to materials subject to local/national/regional classifications requirements. Please refer to the appropriate regulation for specific details regarding classification requirements and restrictions.
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14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transportation in bulk:	A number of restrictions may apply to materials subject to bulk transportation. Please, refer relevant regulation for specific information on bulk transportation requirements.
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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Export and Import of Dangerous Chemicals (Regulation (EC) No 689/2008) Information:	This substance is not listed in the Annex I of Regulation (EC) No 689/2008.
CLP Regulation (EC) No 1272/2008:	This substance is not listed in Annex VI (tables 3.1 and 3.2) to CLP regulation.

REACH Regulation (EC) No1907/2006:	Not required to be registered in accordance with provisions of REACH regulation.
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15.2. Chemical safety assessment

CSA:	Chemical Safety Assessment for polyethylene is not required in accordance with provisions of REACH regulation.
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SECTION 16: Other information**Abbreviations and acronyms:**

CAS No	Chemical Abstracts Service number
CLP	Classification Labelling Packaging Regulation ; Regulation (EC) No1272/2008
CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
DPD	Dangerous Preparation Directive 1999/45/EEC
DSD	Dangerous Substances Directive 67/548/EEC
EC	European Commission
ECHA	European Chemicals Agency
EC-Number	EINECS and ELINCS Number (see also EINECS and ELINCS)
EINECS	European Inventory of Existing Commercial Substances
ELINCS	European List of notified Chemical Substances
ES	Exposure Scenario
EU	European Union
GHS	Globally Harmonized System
IUPAC	International Union for Pure Applied Chemistry
LC50	Lethal concentration, 50 %
LD50	Median Lethal Dose
OEL	Occupational Exposure Limit
OSHA PEL	Occupational Safety and Health Administration Permissible Exposure Level
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC(s)	Predicted No Effect Concentration(s)
PPE	Personal Protection Equipment
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RMM	Risk Management Measure

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STOT	Specific Target Organ Toxicity
(STOT) RE	Repeated Exposure
(STOT) SE	Single Exposure
UN	United Nations
vPvB	Very Persistent and Very Bioaccumulative