

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

According to Article 31 of Regulation (EC) No. 1907/2006 (REACH), safety data sheets (SDS) must be prepared and provided for hazardous substances or mixtures. This product does not meet the classification criteria under Regulation (EC) No. 1272/2008 (CLP). Therefore, this document does not fall within the scope of Article 31 of the REACH Regulation and is not subject to the requirements for the content of individual sections as described in Annex II of the REACH Regulation, as amended.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

1.1. Product identifier

The table contains identifiers (names and identification numbers) of the product marketed under the trade name:

HDPE LITEN

Type B:

BB 52-010, BB 54-010, BB 54-030, BB 56-040, BB 58-030,
BB/FB 75, BB/FB 85, BB/FB 85 F,
BS 50-007,
EB 43-013, EB 46-050, EB 49-006, EB 52-005,
EH 49-006
FB 41-018,
FL 41-018,
LS 87,
MB 68, MB 77, MB 87, MB 53-200,
ML 50-400, ML 57, ML 67,
RL 58, RL 58 UV,
TB 49-060,
VB 68, VB 85,
XB 41-014, XB 41-018, XB 43-013, XB 49-006, XB 49-060,
XB 52-005, XB 52-010, XB 53-200, XB 54-010, XB 58-030,
XL 41-018, XL 50-400,
XS 50-007,

Type L:

EL 56-050,
PL 60-006, PL 62-005,
XL 56-050, XL 60-006, XL 62-005,
YL-00-000

IDENTIFIER	IDENTIFICATION NAME		IDENTIFICATION NAME
Registration	copolymer	copolymer	REACH registration number: is not subject to registration
	<i>monomer comonomer</i>	<i>Ethylene / Ethylene Hex-1-en / Hex-1-ene</i>	<i>01-2119462827-27-0036 01-2119475505-34-</i>

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

Harmonised classification	polyethylene nor any of the copolymers are on the list	No index number
ECHA lists	Polyetylen	číslo ES: 607-647-3
International chemical name	Ethylene/Hexene Copolymer	číslo CAS: 25213-02-9

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

- 1.2.1. Identified uses
Industrial use.
- 1.2.2. Uses advised against
Unknown.

1.3. Details of the supplier of the safety data sheet

Manufacturer: ORLEN Unipetrol RPA s.r.o., Záluží 1, 436 70 Litvínov, Czech Republic
 ☎: +420 476 161 111, fax: +420 476 619 553,
info@orlenunipetrol.cz, www.orlenunipetrolrpa.cz

- Head of Customer Service Department: ☎: +420 476 162 006; Lucie.Markova@orlenunipetrol.cz
- Business Development Unit: polyolefin_development@orlenunipetrol.cz
- Person professionally qualified to compile the Safety Data Sheet: reach.unirpa@orlenunipetrol.cz

1.4. Emergency telephone number

- ORLEN Unipetrol RPA s.r.o. ☎: +420 476 163 111 (NON STOP)
- Centre of the Ministry of Health ☎: +420 224 915 402, +420 224 919 293 (24 HOURS)
 Toxicological information centre (TIS)
 Na bojišti 1, 120 00 Prague 2, Česká republika e-mail: tis@vfn.cz
- Transport Information and Emergency System (TIES) ☎: +420 476 163 111 (NON STOP)

Note: Emergency telephone numbers for EU countries are listed in Section 16.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The product is not classified as hazardous according to Regulation (EC) No. 1272/2008 CLP.

2.2. Label elements

The product is not classified as hazardous and therefore is not subject to the labelling obligation within the meaning of Regulation (EC) No. 1272/2008 CLP.

UFI code – not relevant. The product is not a hazardous mixture.

2.3. Other hazards

The product is flammable but difficult to ignite; it may also become electrostatically charged. The product's dust may form explosive mixtures with air.

The product is not included in the candidate list according to Article 59 (paragraph 1) of the REACH Regulation (SVHC substances).

In the production of the aforementioned types, substances of very high concern (SVHC substances, see the candidate list according to Article 59 (paragraph 1) of the REACH regulation, updated as of 25/06/2025) are not used as raw materials, additives, or auxiliary substances in concentrations exceeding 0.1% by weight.

The product does not meet the criteria for persistent, bioaccumulative, and toxic substances (PBT substances) or very persistent and very bioaccumulative substances (vPvB substances).

The product also does not contain substances included in the candidate list according to Article 59 (paragraph 1)

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

of the REACH Regulation due to endocrine disrupting properties or for other reasons.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

–

3.2. Mixtures

Polyethylene, homopolymer nor any of the copolymers, is not classified as hazardous within the meaning of Regulation (EC) No. 1272/2008 CLP and does not contain any hazardous admixtures in concentrations that would affect its classification, nor substances with established Community exposure limits.

Name of the folder	CAS EINECS Index No. Registration No. HS code (customs tariff)	Classification according to Regulation (EC) No. 1272/2008 (CLP)	Content in mixture (wt. %)
Polyethylene (copolymer)	25213-02-9 607-647-3 - * 3901	is not dangerous	Type: Natural B: 99,45 - 99,89 **Black L: 97,33 - 97,34

The product does not contain a nanoform.

The specific concentration limit (SCL), multiplication factor (M-), and acute toxicity estimate (ATE) have not been established for polyethylene (harmonised classification).

*Polymers are not subject to the registration obligation under Title II of Regulation (EC) No. 1907/2006 (REACH) pursuant to Article 2(9) of this Regulation. The registration obligations under Article 6(3) apply to monomeric substances if their content in the polymer is at least 2% by weight.

** Additive content (Carbon black CAS 1333-86-4): 2.0 – 2.5%, it may be less for transition grades.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

4.1.1. General instructions

When providing first aid, ensure your own safety.

Call the emergency medical services (☎ 112 EU) and follow their instructions until they arrive.

Provision of first aid must always focus on checking for consciousness, breathing, and blood circulation. In case of loss of consciousness and breathing, check if the airway is clear (pull out the lower jaw slightly). If the airway is clear, immediately start CPR (chest compressions) and artificial respiration in a 30:2 ratio. It is also possible to perform only chest COMPRESSIONS without artificial respiration if you are not trained or if for reasons of personal safety you are unwilling to perform artificial respiration.

If the subject is unconscious and breathing NORMALLY (REGULARLY), place them in the recovery position. When in doubt, if you are not sure if the person is breathing (for example, there is a long pause between breaths), act as if the person were not breathing.

If the person is unconscious or has spasms, do not administer anything by mouth, just place the person in the recovery position.

A patient's condition can improve very quickly, so never take your eyes off the patient and keep checking on consciousness and breathing.

4.1.2. Inhalation

Discontinue exposure. Remove the affected person to fresh air, keep at rest and warm.



SAFETY DATA SHEET
POLYETHYLENE LITEN
(C2/C6 COPOLYMER)

this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous

Valid Edition: 13/10/2025 –
Version 2

replaces: 14/06/2024 – 1.4 release
original edition: 10/10/2020

4.1.3. Skin contact

Remove the contaminated clothing and footwear. Wash the affected skin with water and soap. If irritation occurs, seek medical attention.

When in contact with hot product, do not attempt to remove it from the skin, cool the burnt area under a stream of cold water and ensure professional medical assistance.

4.1.4. Eye contact

In the event of dust entering the eyes, rinse the eyes with water or remove the dust as any other common mechanical impurity. If symptoms persist, seek medical attention.

4.1.5. Ingestion

This method of exposure is not anticipated in professional and industrial use. However, should ingestion of a large quantity of the product nevertheless occur, ensure professional medical assistance.

4.2. Most important symptoms and effects, both acute and delayed

Under conditions of normal use, it has no acute or chronic adverse effects on human health. Careless handling may result only in mechanical irritation of the eyes or skin. Inhalation of dust may irritate the respiratory organs.

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

None.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing agents: foam, powder, water spray for large fires.

Inappropriate extinguishing agents: direct water jet.

5.2. Special hazards arising from the substance or mixture

During combustion of the product, vapours and smoke harmful to health may form, containing unidentified hydrocarbon compounds, carbon monoxide, carbon dioxide and others. Substances are released that cause irritation of the respiratory system or cause intoxication.

5.3. Advice for firefighters

Protective equipment for fire fighters: complete protective suit and insulating breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Caution: scattered granules may cause slipping and falling.

In the event of polymer ignition – use special personal protective equipment (self-contained breathing apparatus).

Avoid inhalation of vapours. Avoid direct contact of skin and eyes with the hot, molten product.

Remove all sources of ignition (prohibition of smoking, flares, sparks or flames in the immediate vicinity).

Ensure adequate ventilation, particularly in enclosed spaces, and the absence of sources of ignition. Fire-fighting equipment should be prepared in case of fire. Ensure that all equipment is non-sparking or is electrically bonded.

Keep persons not involved in the clean-up operation away from the affected area and upwind.

6.2. Environmental precautions

Within the framework of good practice, minimise contamination of waste water, soil, groundwater, drainage systems or water bodies.

Any release must be cleaned up immediately and the spilt material disposed of (see Sections 6.3.; 13; 16 Guidance for industrial users on preventing the release of synthetic polymer microparticles into the environment.). Do not flush spilt material into public or storm drainage systems. Prevent spilled material from escaping into the surrounding area onto unsecured open ground.



	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

6.3. Methods and material for containment and cleaning up

Each workplace where polymeric products are handled should be equipped with cleaning agents and a covered container for waste polymeric product. Sweep up spilt material and place it in a suitable dry container for further processing or subsequent disposal. Dispose of in accordance with the applicable waste management legislation. Where possible, the preferred method of disposal should be recycling or resale. The disposal of polymeric products in landfills should be minimised.

6.4. Reference to other

For recommended personal protective equipment, see Subsection 8.2. (Exposure Controls).
Refer to Section 13 (Disposal Considerations) for the recommended waste disposal method.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

The product is not classified as hazardous according to Regulation (EC) No. 1272/2008 – CLP. Specific measures for managing risks are therefore not required. Nevertheless, worker exposure during work procedures should be minimised by observing personal hygiene and proper industrial hygiene practice:

- During work refrain from eating, drinking and smoking;
- After work and before eating or drinking, thoroughly wash hands and exposed parts of the body with water and soap;
- Do not wear contaminated clothing, footwear and protective equipment into eating areas.

Observe fire safety measures and use the recommended personal protective equipment (safety goggles, protective gloves, work clothing, closed footwear).

Avoid direct contact of the skin with the hot, molten product.

Ensure that during handling no product leakage into the environment, storm water or public sewerage occurs. During product processing and further handling, apply proper technological procedures for the prevention of pellet or dust leaks (recommended e.g.: closed system, full automation, extraction system, overflow protection, others according to local conditions); Carry out regular inspection rounds for the purpose of prevention and resolution of product leaks. Furthermore, see Section 16 – Guidance for industrial users on preventing the release of synthetic polymer microparticles into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Polyethylene is supplied in polyethylene bags stacked on wooden pallets or loose-loaded in road tankers. Storage places need to comply with fire safety requirements of buildings and electrical equipment need to comply with applicable regulations. Protect the product from contact with incompatible materials, open flame or exposure to high temperatures. In order to preserve the qualitative parameters of the product, do not expose it to moisture and direct sunlight. It is therefore recommended to store in a dry, ventilated, covered warehouse, the premises of which are protected against the direct effects of solar radiation, or to ensure the aforementioned conditions by other suitable means (e.g. tightly sealed containers or packaging). The recommended temperature range in the warehouse is -20°C to +50°C. At sub-zero temperatures, increased caution must be taken when handling the product. At storage temperatures below 20°C, it is recommended to condition the material for a minimum of 24 hours before actual processing in the production hall (moisture condensation). The distance from heat sources must be at least 1 m. The recommended storage period in closed packaging under the specified storage conditions is a maximum of 1 year. For longer-term storage, it is advisable to verify the properties of the material before processing.

7.3. Specific end use(s)

Industrial use – use in industrial operations as raw material for pressed products/articles (suitable for a range of applications, including technical ones, see material specifications for individual types).

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

Production and use must be in accordance with the stated permissible exposure limit values.

Polyethylene dust		NPK-P [mg.m ⁻³]	PEL [mg.m ⁻³]
Czech Republic (Government Regulation No. 361/2007 Coll.)		–	5
European Union (Directive 2000/39/EC)		Limit values are not established	
<i>Products of decomposition/combustion</i>	<i>CAS NAME / NUMBER:</i>	<i>PEL [mg.m⁻³]</i>	<i>NPK-P [mg.m⁻³]</i>
	Carbon monoxide/ 630-08-0	23	117
	Carbon dioxide/ 124-38-9	9000	45000

The explanation of the meaning of the PEL and NPK-P abbreviations is in Section 16.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Adequate ventilation to prevent exceeding the permissible exposure limit established for polyethylene dust. In case of insufficient ventilation, effective local exhaust ventilation.

8.2.2. Individual protective measures, such as personal protective equipment

For safe handling, it is necessary to observe fire prevention measures and use the recommended personal protective equipment (protective goggles, protective gloves, work clothing, closed footwear).

In the event that exposure is increased as a result of an accident or extraordinary incident, employees must have personal protective equipment (PPE) available for the protection of respiratory tract, eyes, hands and skin, which corresponds to the nature of the activities being carried out. Appropriate respiratory protection must also be provided where it is not possible to ensure compliance with occupational exposure limits established for the workplace by technical means.

All PPE must be continuously kept in a usable condition and replaced immediately if damaged or contaminated.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT (PPE):

- *Respiratory protection:* under normal conditions no respiratory protection is required, in case of possible exceedance of the exposure limit a dust mask respirator (type P);
for removing the consequences of an extraordinary event / accident – self-contained breathing apparatus (SCBA)
- *Eye/face protection:* safety glasses with side protection (EN166)
- *Skin protection – hands* protective gloves (EN374)
- *Protection of other parts of the body:* protective work clothing and footwear
- *Thermal hazard:* when working with heated material, use insulating gloves (EN407)

8.2.3. Environmental exposure controls

During handling and storage, the product must be handled in such a manner as to prevent its release into the environment by all available means, or alternatively to minimise losses of polymeric products during their processing, handling, transport and other methods of handling. See Sections 6.2. and 7.1.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

CHARACTERISTIC	UNIT	VALUE	NOTE
Physical state		Solid	At 20°C, 101.3 kPa Pellets
Colour		by types: B: colourless L: black	
Odour		Odourless	

	SAFETY DATA SHEET POLYETYLENE LITEN (C2/C6 COPOLYMER)		Valid Edition: 13/10/2025 – Version 2
	this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

CHARACTERISTIC	UNIT	VALUE	NOTE
Odour threshold	[ppm]	Not relevant	
Melting point/freezing point	[°C]	120 - 134,5	
Boiling point or Initial boiling point / boiling range	[°C]	Not relevant	
Flammability (solid, gas, liquid)		The product is capable of combustion.	Flammability according to EN 13501-1: class F
Upper flammability / explosive limits	[g.cm ⁻³]	Not relevant	
Lower flammability / explosive limits	[g.cm ⁻³]	100	Dust
Flash point	[°C]	370	Granules
Ignition temperature	[°C]	390 - 400 350 445	Granules Settled dust Stirred-up dust
Decomposition temperature	[°C]	Not relevant	
pH		Not relevant	
Kinematic viscosity	[mm ² .s ⁻¹]	Not relevant	
Solubility in water	[g.l ⁻¹]	Insoluble	
Partition coefficient: n-octanol/water	[log Kow]	Not relevant	
Vapour pressure	[hPa]	Not relevant	
Density	[kg.m ⁻³]	930 - 970	
Relative density	water = 1	Not relevant	
Relative vapour density	air = 1	Not relevant	
Particle characteristics	mm	2 – 7	Typical pellet size

9.2. Other information

9.2.1. Information with regard to physical hazard classes

The product does not have physical hazards.
Heat-resistant.

Flammability according to ČSN EN 13501-1: class F

Flammability according to UL 94 standard [mm/min]: class HB

CHARACTERISTIC	UNIT	VALUE	NOTE
Evaporation rate		Not relevant	
Dynamic viscosity	[mPa.s]	Not relevant	
Explosive properties		Product is not explosive. Dust may form an explosive mixture with air.	
Oxidation properties		None	
Minimum ignition energy	[J]	1,6	

9.2.2. Other safety characteristics

CHARACTERISTIC	UNIT	VALUE	NOTE
Bulk density	[kg.m ⁻³]	500 - 650	Granules
Heat of combustion	[MJ.kg ⁻¹]	45 - 46	
Volatile matter content	%	< 0.1	Own tests

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

When the handling and storage conditions described in Section 7 are observed, there is no risk of reactivity.

10.2. Chemical stability

When stored and handled under the conditions described in Section 7, the product is chemically stable.

Polyethylene, owing to its non-polar character, is chemically very stable against solutions of inorganic salts, acids and bases across a wide range of temperatures and concentrations.

It does not resist oxidising agents (concentrated nitric acid, oleum, halogens, etc.), and swells in halogenated aromatic hydrocarbons and in certain solvents at elevated temperatures.

The moisture absorption and water absorption capacity of polyethylene is practically zero. Water sorption relates only to the surface of the material.

10.3. Possibility of hazardous reactions

Under storage and handling conditions described in Section 7, no hazardous reactions occur.

10.4. Conditions to avoid

Sources of ignition, creation of explosive dust-air mixture.

10.5. Incompatible materials

Oxidising agents.

10.6. Hazardous decomposition products

By thermal decomposition at high temperatures, e.g. during a fire, harmful vapours and smoke may be produced containing unidentified hydrocarbon compounds, carbon monoxide, carbon dioxide and others which may arise during combustion of the product. The substances being released may cause irritation of the respiratory system or cause intoxication.

SECTION 11: TOXICOLOGICAL INFORMATION

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

11.1.1. Toxicological effects of the substance

HAZARD CLASS	EFFECT FOR HEALTH	JUSTIFICATION
Acute toxicity	According to available information, it is not necessary to classify the product as acutely toxic	Currently, no information is available to demonstrate that the product has this property
Causticity / skin irritation	According to available information, it is not necessary to classify the product as corrosive or irritating to skin	Currently, no information is available to demonstrate that the product has this property
Serious eye damage / eye irritation	According to available information, it is not necessary to classify the product as damaging or irritating to eyes	Currently, no information is available to demonstrate that the product has this property
Respiratory / skin sensitisation	According to available information, it is not necessary to classify the product as sensitising	Currently, no information is available to demonstrate that the product has this property
Germ cell mutagenicity	According to available information, it is not necessary to classify the product as mutagenic	Currently, no information is available to demonstrate that the product has this property
Carcinogenicity	According to available information, it is not necessary to classify the product as carcinogenic	Currently, no information is available to demonstrate that the product has this property

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

HAZARD CLASS	EFFECT FOR HEALTH	JUSTIFICATION
Toxicity for reproduction	According to the information available to date, it is not necessary to classify the product for adverse effects on fertility or foetal development	Currently, no information is available to demonstrate that the product has this property
Specific target organ toxicity – single exposure	According to the information available to date, it is not necessary to classify the product for its ability to damage human organs following single exposure	Currently, no information is available to demonstrate that the product has this property
Toxicity for specific target organs – repeated exposure	According to the information available to date, it is not necessary to classify the product for its ability to damage human organs upon repeated exposure	Currently, no information is available to demonstrate that the product has this property
Inspiration hazard	According to available information, it is not necessary to classify the product as hazardous when inhaled	Currently, no information is available to demonstrate that the product has this property

11.2. Information on other hazards

Polyethylene, neither homopolymer nor any of the copolymers, is included in the candidate list according to Article 59 (paragraph 1) of the REACH Regulation (due to endocrine disrupting properties or for any other reason).

The product does not contain substances ($\geq 0.1\%$ w/w) that are included on the candidate list pursuant to Article 59 (paragraph 1) of the REACH Directive (due to properties that may endanger endocrine activities or for other reasons).

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Data not available.

12.2. Persistence and degradability

Data not available.

12.3. Bioaccumulation potential

Data not available.

12.4. Mobility in soil

Data not available.

12.5. Results of PBT and vPvB assessment

The product does not meet the criteria for persistent, bioaccumulative, and toxic substances (PBT substances) or very persistent and very bioaccumulative substances (vPvB substances).

12.6. Endocrine disrupting properties

Polyethylene, neither homopolymer nor any of the copolymers, is included in the candidate list according to Article 59 (paragraph 1) of the REACH Regulation (due to endocrine disrupting properties or for any other reason).

The product does not contain substances ($\geq 0.1\%$ w/w) that are included on the candidate list pursuant to Article 59 (paragraph 1) of the REACH Directive (due to properties that may endanger endocrine activities or for other reasons).

12.7. Other adverse effects

Polymeric products in the form of powder or granules move easily through the environment via air and water.

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

If the product becomes waste, e.g. as a result of uncontrollable release, accident or emergency, applicable European Union legislation as well as national and local regulations must be observed. Hand over the waste for disposal to a professionally qualified person with the appropriate authorisation.

13.1.1. Recommended waste classification according to COMMISSION DECISION of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council:

07 02 13 Plastic waste

13.1.2. Recommended method of waste disposal

Hand over the waste for disposal to a professionally qualified person with the appropriate authorisation. Material or energy recovery.

13.1.3. Recommended method of disposal of contaminated packaging

15 01 02 (plastic packaging)

15 01 03 (wooden pallets)

Material or energy recovery.

13.1.4. Measures to limit exposure during waste handling

Do not flush product spilled during an emergency or accident into storm or public sewers. Proceed in accordance with the instructions set out in Section 6 (Accidental Release Measures) and in Subsection 8.2. (Exposure Controls) and comply with all applicable legal regulations for the protection of individuals, air, and water.

WARNING: The aforementioned information is of a recommendatory nature and relates to the supplied, as yet unused material. All responsibility for waste management, including its classification by type and category, lies with the waste producer in accordance with local regulations.

SECTION 14: TRANSPORT INFORMATION

The product is not classified as a dangerous good according to transport regulations.

14.1. UN number or ID number not relevant

14.2. UN proper shipping name not relevant

14.3. Transport hazard class(es) not relevant

14.4. Packing group not relevant

14.5. Environmental hazards not relevant

14.6. Special precautions for users not relevant

14.7. Maritime transport in bulk according to IMO instruments –

14.8. Other information

None.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. European Union

Regulation (EC) No. 1907/2006 (REACH) of the European Parliament and the Council, as amended

REGISTRATION (TITLE II OF THE REACH REGULATION)

The product is not subject to the registration obligation under Title II of this Regulation pursuant to Article

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

2(9) of Regulation (EC) No. 1907/2006 of the European Parliament and of the Council (REACH). The registration obligations under Article 6(3) apply to monomeric substances if their content in the polymer is at least 2% by weight.

AUTHORISATION (TITLE VII OF THE REACH REGULATION)

The product is not on the list of substances in Annex XIV of Regulation (EC) No. 1907/2006 REACH and, therefore, it is not subject to the authorisation obligation.

RESTRICTIONS (TITLE VIII OF THE REACH REGULATION)

The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

ORLEN Unipetrol RPA confirms that HDPE LITEN products do not fall under the prohibition on placing on the market pursuant to Commission Regulation (EU) 2023/2055 – exception under subsections 4 and 5 of point 78, Annex XVII of the REACH Regulation.

The above-mentioned products as synthetic polymeric microparticles are supplied in the form of pellets used in industrial operations as raw material for further processing (e.g.: pressed, blown, extruded, injection-moulded products, etc.).

Requirements for information and instructions on how to handle, store or dispose of polymer products in an industrial environment in order to prevent and significantly minimise the release of microplastics into the environment are incorporated into the individual relevant sections of the safety data sheet.

Regulation (EC) No. 1272/2008 (CLP) of the European Parliament and the Council, as amended

The product is not classified as hazardous in accordance with the aforementioned regulation, and therefore the obligations relating to packaging and labelling of packaging do not apply to it.

European Parliament and Council Regulation (EC) No. 2017/542 (VIII) – Annex VIII. (CLP) – harmonised information concerning response to emergency incidents.

The product is not subject to the notification obligation to the PCN (Poison Centers Notification) system on the ECHA portal.

Regulation (EC) No. 649/2012 of the European Parliament and the Council, on the Export and Import of Hazardous Chemicals, as amended

The product is not subject to special export and import restrictions.

Commission Decision 2014/955/EU of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council

Implemented into Act No. 541/2020 Coll., on Waste.

15.1.2 Czech Republic

Act No. 350/2011 Coll. on Chemicals and Chemical Mixtures, as amended

The product is not subject to the obligation of PCN notification (Poison centres notification)

Act No. 258/2000 Coll., on Public Health Protection, as amended

Government Regulation No. 361/2007 Coll., which stipulates conditions of health protection at work, as amended

Act No. 254/2001 Coll., on Waters, as amended

Act No. 201/2012 Coll., on Air Protection, as amended

Act No. 541/2020 Coll., on Waste, as amended

Decree No. 8/2021 Coll., on the Waste Catalogue and Assessment of Waste Properties, as amended

Government Regulation No. 361/2007 Coll., which stipulates conditions of health protection at work, as amended

The product component has established limit values for exposure, the product is not subject to the obligation to establish a controlled zone

Act No. 224/2015 Coll., on the Prevention of Major Accidents Caused by Selected Dangerous Chemical Substances or Mixtures, as amended – *Product not included;*

15.2. Chemical safety assessment

Not relevant. The product does not meet the criteria for classification as hazardous in accordance with Regulation (EC) No. 1272/2008 CLP.

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

SECTION 16: OTHER INFORMATION

Changes adopted as a part of the revision process

13/10/2025: Revision (2) – complete update of the document; provision of information according to the requirements of Annex XVII of Regulation (EC) No. 1907/2006 REACH – Commission Regulation (EU) 2023/2055 – restriction of synthetic polymer microparticles (entry 78);

Abbreviations and acronyms used in the text

ADR	Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Registration number assigned to the substance by the Chemical Abstracts Service of the American Chemical Society
CLP	EU Directive No. 1272/2008 on Classification, Labeling and Packaging of chemical substances and mixtures, which is implemented into the European legislature by the means of GHS (United Nations' Globally harmonized System) for classifying and labeling chemical substances
CMR	Carcinogenic, mutagenic or toxic for reproduction
ČSN EN (ISO)	European standard incorporated into the Czech technical standards
CSR	Chemical Safety Report
DMEL	Derived minimal effect level - an exposure level that corresponds to a low and possibly theoretical risk, which should be considered as an acceptable risk (for thresholdless effects, i.e. there is no exposure level without effect))
DNEL	Derived no-effect level - level of exposure derived from toxicological data that does not produce any adverse effects on human health
DW	Data waiving
EC ₅₀	Effective concentration EC ₅₀ is the concentration of substance that causes immobilization of 50% of individuals
ErC ₅₀	Effective concentration EC ₅₀ is the concentration of substance that causes 50 % decrease of Algae growth
ECHA	European Chemicals Agency
ES	Official number of the chemical substance in the European Union: EINECS from the European Inventory of Existing Commercial Substances, or ELINCS from the European List of Notified Chemical Substances, or NLP from the No Longer Polymer list
HSDB	Hazardous Substances Data Bank
HS code	Harmonized System (HS), a numerical code for a multi-purpose international classification of products (customs nomenclature)
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IC ₅₀	Inhibition concentration IC ₅₀ that causes inhibition of 50% of individuals
ICAO	International Civil Aviation Organization
ICE	"Intervention in Chemical Transport Emergencies" system providing both professional and practical assistance in dealing with emergency situations related to the transport and storage of hazardous chemicals
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organisation
ISO	International Organization for Standardization
LC ₅₀ /LD ₅₀	Lethal concentration/level is the concentration/level of substance that causes mortality of 50 % individuals
LOEC/LOEL	Lowest Observed Effect Concentration/Level
log K _{ow}	Logarithm of distribution coefficient n-octanol/water
nf	Not feasible
NOAEC/NOAEL	No Observed Adverse Effect Concentration/No Observed Adverse Effect Level
NOEC/NOEL	No Observed Effect Concentration/No Observed Effect Level

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

NPK-P	The highest permitted concentration of the chemical substance in the air (the concentration of the substance that a worker may be exposed to for a maximum of 15 minutes but which must never be exceeded)
OECD	Organization for Economic Co-operation and Development
OOP	Recommended personal protective aids
OSN	United Nations
(Q)SAR	Quantitative Structure-Activity Relationship
PBT, vPvB	Persistent, bioaccumulative and toxic; high persistent and high bioaccumulative
PEL	Permitted exposure limit of the chemical substance in the air (the exposure value that an employee may be exposed to during the entire working shift (8 hours), without endangering his health during lifetime occupational exposure)
PMT, vPvM	Persistent, mobile and toxic, very persistent and very mobile
PNEC	Predicted No Effect Concentration
REACH	EU Directive No. 1907/2006 on Registration, Evaluation and Authorization of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
STP	Sewage treatment plant
su	Scientifically Unjustified
TRINS	Transport Information and Accident System of the Czech Republic, providing professional and practical assistance in dealing with emergency situations related to transport and storage of hazardous chemical substances, included in ICE
UACRON	Chemical database (The University of Akron).
UN	The four-digit identification number of the substance or object identifying hazardous material in international transport
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials

Sources of data used to compile the safety data sheet

Annex XVII to REACH Regulation (EC) No. 1907/2006, as amended;
 Annexes I, IV, VI and VII to CLP Regulation (EC) No. 1272/2008, as amended;
 Principles for providing first aid in case of exposure to chemical substances;
 Safety data sheets from suppliers of raw materials for the production of polymeric products;
 Public information on the ECHA agency's internet pages;
 Sources of search data (Hazardous Substances Data Bank HSDB, Sicherheitstechnische Kenndaten chemischer Stoffe SORBE, MedisAlarm, University of Akron Chemical UAKRON, Hygiene Limits Gestis);

Full text of H- and EUH-statements mentioned in Sections 2 and/or 3

No H- or EUH-phrases are stated in the text.

Guidance for industrial users on preventing the release of synthetic polymer microparticles in the form of dust or granules into the environment.

During handling and storage, the product must be handled in such a manner as to prevent its release into the environment, or to minimise losses of polymeric products during their processing, handling, transport and other methods of handling.

Workplaces where uncontrolled leakage of polymeric products may occur are primarily processing units, laboratories, logistics and warehouses, maintenance and others according to local conditions.

For this purpose, it is recommended to observe the following instructions and technical-organisational measures (or to establish other suitable procedures for handling and processing with regard to one's own workplace, local conditions, company size and facility infrastructure):

Loss prevention:

- Introduction of proper technological procedures in product processing and further handling for the

	SAFETY DATA SHEET POLYETYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

prevention of pellet or dust leakage (recommended: closed system, full automation, extraction system, overflow protection);

- it is recommended to secure sampling points against leakage by means of systems such as the use of wide-mouth sampling containers, the use of collection vessels and funnel hoppers.
- packaging: use quality packaging materials for packing products containing microplastics. The packaging must be properly sealed.
- to prevent puncturing or tearing of bags containing polymer products, it is advisable to check pallets to ensure that no nails are protruding from them or that the boards are not cracked, to place corrugated cardboard on the pallet surface to reduce the risk of bag tearing; care must be taken when handling with a forklift truck;
- during loading, unloading or transport, the formation and escape of polymeric product may occur. All storage silos, tanks, containers and transport equipment shall be maintained in good condition and sealed. The use of filters, containment trays, etc. is also suitable;
- transport: to clear and clean the cargo space of motor vehicles or railway vehicles/containers from released polymeric products after both loading and unloading. All valves, safety devices and covers shall be secured against leakage of polymeric products; when opening them, a collection vessel shall be placed beneath the openings. Place released polymer products into designated marked containers; visual inspection of the integrity of packaging or freight containers/wagons before commencing the journey;
- when cleaning empty containers/receptacles, railway wagons and goods vehicles, it is necessary to ensure that the water used flows into a collection tank with a filtration system which enables the capture of all residual polymeric products; when using air, the extracted air must be directed through filtration equipment to capture dust fractions;
- carry out regular inspection rounds for the purpose of prevention and resolution of leaks;
- regularly train employees on the topic of compliance with principles, procedures and rules to prevent any uncontrolled release of polymeric products into the environment; the procedures must be comprehensible;

Prevention of spread and removal of leaks:

- spaces where, with regard to the design of technological equipment, leakage may occur, to equip with industrial vacuum cleaners or brooms and shovels, or alternatively with containment trays and tarpaulins, insulation tapes for repairing damaged packaging (bags, boxes, etc.);
- equip the workplace with marked containers for leaked material; secure the containers against being carried away by wind;
- removal of spilled product as soon as possible after the situation arises with regard to the manipulations being carried out, but no later than upon completion of the given manipulation/operation;
- as well as regular cleaning and retention of polymeric products at collection points;
- prevent leakage into storm drainage, public sewerage and onto unprotected open terrain/soil; do not pour/discharge into drainage waste;
- waste systems for industrial and rainwater should be equipped with covers or drainage grilles or screens in order to prevent the escape of polymeric products into waste water and potentially secondarily into the environment. The grilles must be regularly cleaned to prevent blockage and overflow of the drain;
- after clearing: scattered product/dust should be reused as raw material if possible; if not, collect and dispose of in accordance with waste legislation;

Training advice

The above information describes the conditions for the safe handling of the product and corresponds to the current knowledge of the manufacturer, serving as guidelines for training individuals handling the product. Persons handling the product must be advised of the risks involved in handling and the health and environmental protection requirements (see the applicable provisions of the Labour Code).

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER) this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous	Valid Edition: 13/10/2025 – Version 2
		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

Access to information

In accordance with Article 35 of Regulation (EC) No. 1907/2006 REACH, each employer must make the information from the safety data sheet available to all workers who use this product or who are exposed to its effects during their work, as well as to the workers' representatives.

Emergency telephone numbers for EU countries (see Subsection 1.4.)

Nationale centers (PCCS)		TELEPHON	LANGUAGE	web
Great Britain		☎ 8448920111	English	☎+44/123 5836002; 5753363
Belgium		☎+32/70245245	French	http://www.centreantipoisons.be
		☎+32/70245245	Dutch	http://www.antigifcentrum.be
		☎+32/70245245	German	http://www.poissoncentre.be
Bulgaria		☎+359/29154411	Bulgarian	https://pirogov.eu/bg
Croatia		☎+385/12348342	Croatian	https://www.imi.hr/en/jedinica/poison-control-centre
Czech Republic		☎+420/224-919293; 915402	Czech	http://www.tis-cz.cz
Denmark		☎+45/82121212	Danish	https://www.bispebjerghospital.dk/giftlinien
Estonia		☎+372/7943794	Estonian	https://www.16662.ee
Finland		☎+358/9471977	Finnish	http://www.hus.fi/sairaanhoido/sairaanhoidopalvelut/myrkytystietokeskus/Sivut/default.aspx
France - Angers		☎+33/241482121	French	http://www.centres-antipoison.net/angers/index.html
France - Bordeaux		☎+33/556964080	French	http://www.centres-antipoison.net/bordeaux/index.html
France - Lille		☎+33/0800595959	French	http://www.centres-antipoison.net/lille/index.html
France - Lyon		☎+33/472116911	French	http://www.centres-antipoison.net/lyon/index.html
France - Marseille		☎+33/491752525	French	http://www.centres-antipoison.net/marseille/index.html
France - Nancy		☎+33/383225050	French	http://www.centres-antipoison.net/nancy/index.html
France - Paris		☎+33/140054848	French	http://www.centres-antipoison.net/paris/index.html
France - Strasbourg		☎+33/388373737	French	http://www.centres-antipoison.net/strasbourg/index.html
France - Toulouse		☎+33/561777447	French	http://www.centres-antipoison.net/toulouse/index.html
Ireland		☎+353/18092166	English	http://www.poisons.ie/Public
Italy - Bergamo		☎+39/800883300	Italian	http://www.asst-pg23.it/section/259/Tossicologia_-_Centro_antiveneni
Italy - Firenze		☎+39/557947819	Italian	http://www.antiveneni.altervista.org
Italy - Milano		☎+39/266101029	Italian	http://www.centroantiveneni.org
Italy - Pavia		☎+39/38224444	Italian	http://www-3.unipv.it/reumatologia-tossicologia/cav
Italy - Napoli		☎+39/817472870	Italian	
Italy - Foggia		☎+39/881732326	Italian	
Italy - Roma		☎+39/668593726, 39/649978000, 39/63054343	Italian	http://www.corso-primo-soccorso-roma.it/centriantiveneni-lazio.html
Cyprus		☎+357/22405611	Greek	http://www.mlsi.gov.cy/
Lithuania		☎+370/52362052	Lithuanian	http://www.apsinuodijau.lt
Latvia		☎+371/67000610	Latvian	https://www.aslimnica.lv/lv
Luxembourg		☎+49/80025500	German	http://www.poissoncentre.be
		☎+352/80025500	French	http://www.centreantipoisons.be
Hungary		☎+36/680201199, 36/0614766464	Hungarian	http://www.okbi.hu/page.php?trid=1&dz=103
Malta		☎+356/23952000	English	https://mccaa.org.mt/
Germany - Berlin		☎+49/3019240	German	https://giftnotruf.charite.de
Germany - Bonn		☎+49/22819240	German	http://www.gizbonn.de/index.php?id=272

	SAFETY DATA SHEET POLYETHYLENE LITEN (C2/C6 COPOLYMER)		Valid Edition: 13/10/2025 – Version 2
	this document does not need to comply with the requirements of Regulation (EC) No. 1907/2006 (REACH), Article 31, because the product for which it was prepared is not classified as hazardous		replaces: 14/06/2024 – 1.4 release original edition: 10/10/2020

Germany - Erfurt		+49/361730730	German	https://www.ggiz-erfurt.de/home.html
Germany - Freiburg		+49/76119240	German	https://www.uniklinik-freiburg.de/giftberatung.html
Germany - Göttingen		+49/55119240	German	https://www.giz-nord.de/cms/index.php
Germany – Homburg/Saar		+49/684119240	German	http://www.uniklinikum-saarland.de/de/einrichtungen/kliniken_institute/kinder_und_jugendmedizin/informations_und_behandlungszentrum_fuer_vergiftungen_des_saarlandes
Germany – Mainz		+49/613119240	German	http://www.giftinfo.uni-mainz.de/index.php?id=24807
Germany - München		+49/8919240	German	http://www.toxinfo.med.tum.de
Netherlands		+31/31887558561	Dutch	http://www.productnotification.nl/
Poland - Kraków		+48/124119999	Polish	http://www.oit.cm.uj.edu.pl
Poland – Gdansk		+48/586820404	Polish	http://www.pctox.pl/news.php
Poland – Poznań		+48/618476946	Polish	http://www.raszeja.poznan.pl/oddzialy/oddzialtoksykologiczny
Poland - Warszawa		+48/607218174	Polish	okzit@burdipi.pol.pl
Portugal		+351/808250143	Portuguese	http://www.inem.pt
Austria		+43/14064343	German	http://www.goeg.at/de/VIZ
Greece		+30/2132009000	Greek	http://www.aglaikiyriakou.gr/ ; http://0317.syzefxis.gov.gr
Romania		+40/213183606, 215992300, 265212111	Romanian	spital@urgentafloreasca.ro secretariat@spitjudms.ro infotox@insp.gov.ro
Slovakia		+421/254774166	Slovak	http://www.ntic.sk
Slovenia		+386/15221293	Slovenian	www.kclj.si
Spain		+34/915620420	Spanish	https://www.administraciondejusticia.gob.es/paj/publico/ciudadano/informacion_institucional/organismos/instituto_nacional_de_toxicologia_y_ciencias_foenses/servicios/info_toxicologica/que_es_sit/lut/p/c5/04_SB8K8xLLM9MSSzPy8xBz9CP0os3g_A1cjCyd-DRwMDUwNLA08nwzAvM0czA_8gM6B8pFm8maerqWdQslmJcaiLiYGncViYa4Chr4GBiQExug1wAEd-CusNBrsWpwsLUACKPy3WuRvjlg83wy5sQ0G8CtR-P_w88nNT9QtyQyMMMj0zA9IVFQHY18I4/dI3/d3/L2dJQSEvUUt3QS9ZQnZ3LzZFTjBfMjhCMUEwMDUwOTBJQjFWSjZBNjBPTjA/?itemId=45381
Sweden		+46/104566700	Swedish	https://giftinformation.se

Declaration: The document contains information necessary to ensure safety and health protection at work and environmental protection. This information has been provided in good faith, corresponds to the current state of knowledge and experience, and is in accordance with applicable national and European legal regulations. The stated information does not substitute the quality specification and cannot be considered as a warranty of suitability and applicability of this product for a specific application. It is the responsibility of the product user to assess the accuracy of the information in a particular application where the product's properties can be influenced by different factors. The customer is responsible for compliance with local laws in force.