



LOW-DENSITY POLYETHYLENE BRALEN

Safety Data Sheet

according to Regulation (EC) No. 2015/830

Date of issue: 20.05.2005

Revision date: 10.10.2016

Version: 5.0

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : LOW-DENSITY POLYETHYLENE BRALEN
Chemical name : polyethylene low density (PE- LD)
CAS No. : 9002-88-4
REACH registration No. : It is not subject to registration according to the Regulation of the EP and Council EC No.1907/2006 (Section I, Article 2, Paragraph 9)

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

1.2.1. Relevant identified uses

It is a raw material for the plastics industry with wide range usage : foils, plastic wraps, tubes, cable sheathing, various construction parts, sports accessories, in households

Recommended usage and limitations: : reserved for professional users

1.3. Details of the supplier of the safety data sheet

SLOVNAFT, a.s.
Vlčie hrdlo 1
824 12 Bratislava - Slovakia
T +421-(0)2/4055-1111 - F +421-(0)2/5859-9759
slovnaftreach@slovnaft.sk - www.slovnaft.sk

1.4. Emergency telephone number

Emergency number : Podnikový dispečing 1: ++0421(0)2/4055 3344
Podnikový dispečing 2: ++0421(0)2/4055 2244
fax: ++0421(0)2/4055 8047
E-mail: podnikovydispecing1@slovnaft.sk, podnikovydispecing2@slovnaft.sk

Country	Official advisory body	Address	Emergency number
UNITED KINGDOM	National Poisons Information Service	Dudley Road B 18 7QH Birmingham 0870600 6266, J.A.Vale	+44 (0)121 507 4123

2. Hazards identification

2.1. Classification of the substance or mixture

Polyethylene BRALEN is not classified according to the act No. 67/2010 Coll. of the Slovak Republic, or the Regulation of the EP and EC Council No. 1272/2008.

2.2. Danger to public health

Polyethylene BRALEN has no acute or chronic adverse effect on man's health if used under conditions for normal usage.

It represents no danger at temperatures under 110°C.

In a liquid phase, when melted, it can cause serious burns if contacted with skin and eyes.

It is biologically inert. Ingestion of a small amount should not cause any troubles.

Inhaling of its dust can irritate respiratory system and mucous membranes. It is biologically inert.

2.3. Danger to environment

Polyethylene BRALEN has no toxic effects on environment.

Within the environment, it is an extraneous substance with a very slow decomposition.

It decays when exposed to UV radiation.

It is insoluble in water. It is biologically inert.

2.4. Other hazards

When contacted with flame it is combustible, but hardly inflammable. During combustion toxic and irritating substances may also develop (e.g. carbon monoxide). Dry powder is explosive; when the dust concentration in air reaches lower explosion limit an explosion risk arises. The product can be electrostatically charged; sparks developed as a consequence of static electricity can at certain concentrations ignite dust or cause explosion.

3. Composition / information on components / ingredients

3.1. Chemicals characteristics

Chemical name : polyethylene
Chemical formula : (C₂H₄)_x
CAS number : 9002-88-4.
EINECS or ELINEX number : the substance is a polymer and according to European regulations it does not require EINECS registration.
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] : not required

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Polyethylene homo-polymer is in a granulated form of a waxy appearance.

3.2. Composition / Information on ingredients

Polyethylene may contain stabilizers, antioxidants, and other functional additives none of which contain substances in concentrations exceeding permitted limits.

4. First aid measures

4.1. General instructions

No special measures are required.

In case of health problems or in case of doubts it is necessary to consult a doctor and provide him with information from this Safety Data Sheet.

4.2. Inhalation

In case of dust or irritating vapours inhalation take the intoxicated person outside to breathe fresh air.

Visit a professional medical centre if difficulties persist.

4.3. Eye contact

In case of dust ingress into eyes wash the eyes thoroughly with plenty of water as any other common mechanical dirtiness.

Visit a professional medical centre if difficulties persist.

4.4. Skin contact

In case of a skin contact with melted polymer do not remove it from the skin.

Cool down the burnt area with a stream of cold water and call the professional medical help.

5. Firefighting measures

5.1. Appropriate extinguishing media

Foam, dry powder, in case of a large fire use water spray.

5.2. Inappropriate extinguishing media due to safety reasons

Pressurized water stream.

5.3. Special hazard in case of fire

During combustion a dense smoke develops. Dangerous carbon oxides may occur (CO and CO₂).

5.4. Special hazard of explosion

Creation of dust particles can occur in devices used for transporting the product (e.g. during filling or emptying storage bins, tanks, hoppers, etc.). Cumulating of dust particles into bigger amounts may result in their inflammation or explosion due to induced static charge and thus it is necessary to equip such places with an appropriate static charge lead.

5.5. Special protective equipment for fire-fighters

Complete protective clothing and the self-contained breathing device.

5.6. Other data

In case of a large fire protect people, storages and all other things near the fire by using a water curtain.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Spilled granulate may cause slipping and fall of persons. Do not stay in areas where polymeric dust has been whirled up in order not to inhale it.

Avoid skin contact and eye contact with melted polymer.

6.2. Environmental precautions

Do not flush spilled granulate into the sewer system.

6.3. Methods and material for containment and cleaning up

Spilled granulate sweep up and place into suitable packs (giant bags) or clean bins. Depending on the level of its contamination such granulate can be recycled or liquidated according to valid legal regulations for wastes.

7. Handling and storage

7.1. Precautions for safe handling / Manipulation

Observe all fire protection measures (work with open flame is prohibited, remove all possible sources of ignition, smoking is prohibited). During the product's thermal treatment small amounts of volatile hydrocarbons may be released. Thus suction and discharge of hydrocarbons must be locally secured. Dust from the product represents a potential explosion hazard and as such it must be continuously removed. All devices must be properly grounded.

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7.2. Conditions for safe storage, including any incompatibilities

Safety aspects do not require any special measures to be taken during storing the product.

8. Exposure controls / personal protection

8.1. Values of exposure limits

The highest permissible exposure limit for total concentration of polyethylene dust in air in the workplace is 5 mg.m⁻³

8.2. Exposure control

Recommended method for determination of polyethylene dust in workplace air: gravimetry,

8.3. Exposure control in the workplace

A collective protection measure	:	In case of dust occurrence an effective suction and discharge of dust.
Individual protection measures	:	Workers must have personal protection measures at their disposal for eyes protection, for protection of the respiratory system, skin, feet and hands as follows:
		eyes - goggles
		respiratory system - dust-proof respirator
		skin - protective clothing
		feet - closed boots with anti-slip sole
		hands - protective gloves made of para-aramid/carbon blended non-woven felt with thermal insulation with minimum resistance up to 270°C + leather wristband as a forearm protection. Choice of protective gloves depends on the type / character of work with polymers.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state at 20°C	:	solid substance
Colour	:	colourless.
Odour	:	typically paraffinic.
Combustibility grade	:	C3 – easily combustible
Lower explosion limit (dust) /g.m ⁻³ /	:	100
Density at 23°C /kg.m ⁻³ /	:	914-920
Water solubility at 20°C /g.l ⁻¹ /	:	insoluble
Solubility in aliphatic, volatile solvents and chlorinated hydrocarbons at 80°C, /g/l ⁻¹	:	soluble
Melting temperature (of granules)	:	105 - 115 °C
Firing point (of granules)	:	350 - 370 °C
Flash point (of granules)	:	380 - 390 °C
Flash point of settled polymer dust	:	350 °C
Flash point of whirled-up polymer dust	:	445 °C
Minimum initiating inflammation energy /J/	:	1,6
Combustion heat /MJ.kg ⁻¹ /	:	46 - 47
Powder density (granulate), /kg.m ⁻³ /	:	500 - 550

9.2. Other data

The above data are informative, accurate physical-chemical data of the product are specified on the product certificate.

10. Stability and reactivity

10.1. Conditions to be avoided

At normal temperature, the product itself is stable, without chemical reactivity.

Avoid temperatures above 300°C, fire and flash sources, and static electricity.

10.2. Decomposition products

At high temperatures, under presence of air or oxygen, decomposition starts producing CO, CO₂ and H₂O.

11. Toxicological information

11.1. Acute toxicity

According to contemporary professional knowledge the product is not considered hazardous for people and it has no adverse effects on man's health. It is not regarded as dangerous according to the directive EC No. 1272/2008 and directive No. 605/2014. Long-lasting inhaling of its decomposition products can cause headache or may irritate the respiratory system.

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11.2. Sensibility

It has no proved sensibility effects.

11.3. Effects of CMR (Carcinogenicity, Mutagenicity, and Reproductive toxicity)

The product has no proved CMR effects.

12. Ecological information

12.1. Ecotoxicity

The product is not considered to be toxic for the environment.

12.2. Persistence and degradability

Within the environment, it is an extraneous substance with a very slow decomposition. It decays when exposed to UV radiation. It is insoluble in water.

13. Information and arrangements for disposal

13.1. Recommended procedure for the substance liquidation

If unwanted spillage of the product – polymeric granulate – occurs, make sure it does not enter the sewer system where it can cause mechanical stoppage. Securing its mechanical collection and removal is needed, either for further processing, recycling, or for landfilling. It is possible to use it as a fuel. Its correct combustion does not require any special chimney. Exploitation should be in line with local legal regulations for waste disposal and handling.

13.2. Recommended procedure for evaluation of waste

Material evaluation by recycling R 3, energetic evaluation R 1, – usage as fuel.

13.3. Legal regulations concerning waste disposal and handling

The Slovak Republic:

Act No. 79/2015 Z.z. Waste Act and amending certain acts

Waste polyethylene is acc. this public notice classified as follows: catalogue waste no.: 070213 waste plastic

European Union:

European waste catalogue and list of hazardous waste (EC)

Directive 2008/98/EC of the European Parliament and of the Council (EC) waste

Waste polyethylene has acc. to EC catalogue waste number: 070213 and according to use of the polymer

14. Transport information

14.1. Transport classification

Substance is not dangerous in accordance with transport regulations.

From the transport point of view it has no limitations.

15. Regulatory information

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

Not required

15.2. Marking of the product packaging

Not defined / the substance is not classified as hazardous in accordance with the Regulation of the European parliament and of the Council (EC) No. 1272/2008.

15.3. Other legislation, regulations and directives concerning the substance

The Slovak Republic:

Act No. 67/2010 on conditions for marketing chemical substances and chemical mixtures and on amendment and completion of some acts (chemical act)

European Union:

Regulation (EC) No. 1907/2006, Regulation (EC) No. 1272/2008, Regulation (EC) No. 2015/830/EU

16. Other information

SDS changed items : Update of SDS according to regulation EU No. 2015/830

Access to information:

Employer is obliged according to the Article 35 of the Regulation of the EP and Council (EC) No.1907/2006 to make information from the Data Sheet accessible to all employees who use this product, or who are exposed to its effects during the work as well as to representatives of these employees.

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H – statements: not applicable

P – statements: 210, 260

P210 – Keep away from heat/sparks/open flames/hot surfaces. — No smoking...

P260 – Do not breathe dust/fume/gas/mist/vapours/spray.

Declaration: the Safety Data Sheet has been elaborated in accordance with the Regulation of the EP and of the Council (EC) No. 2015/830/EU and replaces the Safety Data Sheet elaborated according to the Regulation (EC) No. 1907/2006 REACH, Appendix II. It contains all data that is necessary for securing safety and health protection at work and for protection of environment. This data does not replace qualitative specification and cannot be regarded as a guarantee for suitability and usability of this product for a concrete application. All the data mentioned correspond with the contemporary knowledge and experiences and is in line with legal regulations of the EU. The purchaser is responsible for observance of valid regional legal regulations.