

SAFETY DATA SHEET
EXPANDED PERLITE
GROUND PERLITE FOR FILTRATION

in accordance with the criteria of Regulation No EC/1907/2006 and EU/2015/830

Date of issue: 20.02.2020

Date of update: -

Version: 3.0/EN

**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/
UNDERTAKING**

1.1 Product identifier

trade name: expanded perlite EP100F, EP100, EP150, EP180, EP200, ground perlite

chemical name: sodium potassium aluminum silicate

synonyms: perlite

registration number: substance exempted from registration according to Annex V of REACH Regulation.

CAS number: 93763-70-3

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

Relevant identified uses: heat-insulating, soundproof and fireproof material used in metallurgy and foundry, construction industry, as a filtering material in food industry, as a component of toothpastes, mild abrasive in different industries, sorbent in environmental protection.

Uses advised against: not determined.

1.3 Details of the supplier of the safety data sheet

Manufacturer: „PerlipoL K. Kuśmirek, G. Derlatka, J. Benben” Spółka jawna

Address: Przemysłowa 6 street, 97-400 Bełchatów, Poland

Telephone/Fax number: +48 44 733 02 88/+48 44 633 24 08 (open Monday-Friday 8 am–4 pm)

E-mail address for a competent person responsible for SDS: perlipol@perlipol.com.pl

1.4 Emergency telephone number

112

Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The substance is not classified as hazardous for human health and life and for the environment.

2.2 Label elements

Hazard pictograms and signal words

None.

Hazard statements

None.

Precautionary statements

None.

2.3 Other hazards

Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation REACH. Relevant tests has not been conducted.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Expanded perlite and ground perlite for filtration are minerals, volcanic glass (CAS 93763-70-3; EC 618-970-4). The main component of perlite is amphoteric sodium potassium aluminosilicate containing magnesium, calcium and iron oxides. Percentage of individual components of perlite: SiO₂ (65-75 %), Al₂O₃ (10-18 %), K₂O+Na₂O (6-9 %), MgO+CaO (2-6 %), Fe₂O₃ (1-5 %).

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Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: remove casualty to fresh air. If disturbing symptoms persists, consult a doctor.

Eye contact: remove contact lenses. Flush the contaminated eyes gently with plenty of water keeping the eyelids wide open. If disturbing symptoms persists, consult a doctor.

Skin contact: wash the contaminated skin thoroughly with water and soap. If disturbing symptoms persists, consult a doctor.

Ingestion: rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a doctor, show the container or label.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: possible cough, sore throat, respiratory tract irritation. Prolonged contact with substance dusts can cause pneumoconiosis.

Eye contact: possible redness, pain, tearing, burning sensation, blurred vision, mechanical irritation (eye abrasion).

Skin contact: possible redness, itching, dryness.

Ingestion: possible stomach pain, vomiting, nausea.

4.3 Indication of any immediate medical attention and special treatment needed

If any disturbing symptoms occur, consult a doctor immediately, show the safety data sheet.

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: carbon dioxide, foam, extinguishing powder, water spray. Adapt the extinguishing media to surrounding materials.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

5.2 Special hazards arising from the substance or mixture

During the fire, the substance may produce toxic combustion products e.g. carbon oxide, carbon dioxide and other unidentified products of thermal decomposition. Do not inhale combustion products, they can be dangerous for human health.

5.3 Advice for firefighters

The substance is not flammable and does not sustain combustion. Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. In case of fire, cool endangered containers with water spray from a safe distance. Collect used extinguishing media.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Do not breathe substance dust. Avoid contact with eye and skin. Use personal protective equipment according to subsection 8.2. Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Ensure that only the trained personnel removes the effects of the accident. In case of large releases, isolate the exposed area.

6.2 Environmental precautions

Prevent from entering the substance into waterways and sewers. In case of release of large amounts of the substance, it is necessary to notify relevant emergency services.

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6.3 Methods and material for containment and cleaning up

Clean the contaminated area. Released substance pick up mechanically, avoid dusting and transfer to the labeled waste disposal containers e.g. with an industrial vacuum cleaner. Use dry cleaning methods. Dispose of in designated areas only. Ventilate the contaminated place.

6.4 Reference to other sections

Appropriate conduct with waste substance - see section 13.

Personal protective equipment - see section 8.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with good industrial relations practice and good occupational hygiene and safety practices with chemicals. Ensure adequate ventilation. Do not breathe substance dusts. Do not eat, drink or smoke when working. Avoid contact with eyes and skin. Use personal protective equipment according to subsection 8.2. Opened containers should be resealed and kept upright to prevent leakage. Keep the unused containers tightly closed.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in tightly closed containers in a dry and well-ventilated area. Do not store with food, feed for animals or incompatible materials listed in subsection 10.5. Protect closed rooms against moisture. Recommended material for packaging: paper or PVC bags, bulk in special tanks (silos for loose materials).

7.3 Specific end use(s)

No uses other than those mentioned in subsection 1.2.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Calcium oxide [CAS 1305-78-8]:

TWA 8 hour - respirable fraction: 1 mg/m³

STEL 15 min - respirable fraction: 4 mg/m³

Legal basis: Commission Directive 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, 2019/1831/EU.

Recommended control procedures

Procedures concerning the control over the dangerous components concentrations in the air and control over the air quality in the workplace - if they are available and justified for the position - in accordance with the European Standards, with the conditions within the exposure place and a proper test methodology adapted to the working conditions.

8.2 Exposure controls

Use the substance in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke when using the substance. Take off contaminated clothing. Avoid eyes and skin contamination. Use personal protective equipment according to subsection 8.2. Avoid the formation and inhalation of substance dusts. Ensure general and/or local ventilation in a workplace to ensure the maintenance of concentrations of hazardous component in the atmosphere below the exposure limit values. Local extraction is preferred because it removes impurities from the place of their formation, preventing their spread.

Hand and body protection

Use protective gloves and protective clothing. Material for gloves should be selected individually in the workplace.

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Material of gloves must be impermeable and resistant to the substance. Due to missing tests no recommendation to the glove material can be given. The resistance of the glove material cannot be calculated in advance and therefore has to be checked before the application. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. Material selection should be made taking into account the penetration times, rates of diffusion and degradation. Moreover, the selection of suitable gloves not only depends on the material, but also on further marks of quality and varies depending on the manufacturer. From the manufacturer's advice should be obtained about the exact break through time has to be observed.

Eyes protection

Wear protective glasses or face protection in case of high concentration of dust in the air.

Ochrona dróg oddechowych

In case of sufficient ventilation is not required. In case of particulate air pollution, when the dust concentrations exceed the normative values, filtering equipment selected in accordance with the multiplicity of exceeded the occupational exposure limit values must be used (P1/is applied in case of particulate concentration no more than 4 x the occupational exposure limit values, P2/is applied in case of particulate concentration no more than 10 x the occupational exposure limit values, P3/is applied in case of particulate concentration no more than 30 x the occupational exposure limit values).

Personal protective equipment must meet requirements of Regulation (EU) 2016/425. Employer is obliged to ensure equipment adequate to activities carried out, with quality demands, cleaning and maintenance.

Environmental exposure controls

Prevent direct runoff the substance into drains and surface water. Do not contaminate surface water and drainage ditches with used containers. Uncontrolled leakage to surface water should be reported to relevant authorities in accordance with local and national regulations.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

appearance –solid, white-gray granules, grain size: 0-6 mm

odour – odourless

odour threshold– not applicable

pH – 6,5-7,5 (water solution)

melting point/freezing point – > 900 °C

initial boiling point and boiling range – not applicable

flash point – not applicable

evaporation rate – not applicable

flammability (solid, gas) –non-flammable (AI class)

upper/lower flammability or explosive limits – not applicable

vapour pressure – not applicable

vapour density – not applicable

relative density – not determined

solubility(ies) – insoluble

partition coefficient: n-octanol/water – not determined

auto-ignition temperature – not applicable

decomposition temperature – not determined

viscosity – not applicable

explosive properties – not display

oxidising properties – not display

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9.2 Other information

bulk density – 60-140 kg/m³
thermal conductivity – 0,045-0,059 W/m·K
absorptivity – 3-80 %
compressive strength – 0,14-0,40 MPa
chemical resistance – similar to glass resistance
acoustic absorption – 10-92 %
specific heat – 0,96-0,92 kJ/kg °C
water vapor diffusion coefficient – 0,035-0,027 g/m h mm Hg

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity

The substance is not reactive. It does not undergo a hazardous polymerization. See also subsections 10.3-10.5

10.2 Chemical stability

The substance is stable under recommended conditions of storage and use.

10.3 Possibility of hazardous reactions

The substance reacts violently with hydrofluoric acid.

10.4 Conditions to avoid

Protect from moisture.

10.5 Incompatible materials

Hydrofluoric acid.

10.6 Hazardous decomposition products

Under properly storage and use conditions are not known.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

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Aspiration hazard

Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The Substance is not classified as hazardous for the environment.

12.2 Persistence and degradability

Not applicable - substance of natural origin; mineral.

12.3 Bioaccumulative potential

Bioaccumulation is not expected.

12.4 Mobility in soil

The substance is not mobile in soil.

12.5 Results of PBT and vPvB assessment

The substance is not assessed as PBT and vPvB.

12.6 Other adverse effects

The substance is not classified as hazardous to the ozone layer.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal methods for the substance:

Disposal in accordance with the local legislation. Store residues in original containers. Dispose the waste product in authorized waste disposal facility. Do not empty into drains. Waste code should be given in the place of waste formation. Recommended waste code: 16 03 04 – inorganic wastes other than those mentioned in 16 03 03.

Disposal methods for used packing:

Reuse, recycle, liquidate empty containers in accordance with the legislation in force. Only containers completely empty can be recycled. Recommended waste code: 15 01 01 – paper and cardboard packaging.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

Section 14: TRANSPORT INFORMATION

14.1 UN number

Not applicable, the substance is not classified as dangerous during transport.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

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Section 15: REGULATORY INFORMATION

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

Regulation (EU) No 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance) as amended.

Commission Regulation (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance).

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

Commission Directive 2017/164/EU of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

Commission Directive 2019/1831/EU of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

Section 16: OTHER INFORMATION

Clarification of aberrations and acronyms

CAS – chemical abstract service

WE –number of European Inventory of Existing Chemical Substances or ELINCS - European List of Notified Chemical Substances or No-longer polymers.

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TWA - Time Weighted Average

STEL - Short Term Exposure Limit

PBT – Persistent, Bioaccumulative and Toxic substance

vPvB – very Persistent, very Bioaccumulative substance

ADR – Agreement concerning the International Carriage of Dangerous Goods by Road

Trainings

Before commencing working with the substance, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

Key literature references and data sources

This SDS was prepared on the basis of literature data, online databases (ECHA) as well as our knowledge and experience.

Additional information

Hygienic certificate for PERLIT: PZH HK/B/0969/01/2016

Due to the user's working conditions are not known to us, the information provided in this safety data sheet are based on our current knowledge and national and European Union regulations.

The user is always responsible for taking the necessary measures to meet legal requirements.

The information contained in this safety data sheet refers to the safety requirements for the use of our substance and does not guarantee its properties.

The above information is based on our current knowledge and legal status.

Prepared by:
mgr Ewelina Strzelecka-Szewc
„Theta” Doradztwo Techniczne
Date: 20.02.2020

Approved by:

Date:

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