



## SECTION SUBSTANCE/MIXTURE IDENTIFICATION AND ENTERPRISE

### 1. IDENTIFICATION

#### 1.1 Product identification:

Name: **BROWN COAL**

Other methods of identification: brown coal granulate 2-10mm

Register number: it is not subject to registration

#### 1.2 Relevant identified uses of the substance.

A component of soil improvers.

#### 1.3 Details of the supplier of the safety data sheet

Name and address of the supplier:

Kopalnia Węgla Brunatnego „Sieniawa” Spółka z o.o.

Osiedle Górnicze 11A

Sieniawa Lubuska

66-220 Łagów

tel. +48 68 341 22 22

#### 1.4 Emergency phone numbers

Emergency number: 112

Ambulance: 999

Fire brigade: 998

## SECTION HAZARDS IDENTIFICATION

### 2.

#### 2.1 Substance or mixture classification

Hazards	Classification compatible with the Council directive 67/548/EWG	Classification compatible with the EU directive 1272/2008 (CLP)
from physicochemical properties	not classified	not classified
to human health	not classified	not classified
to environment	not classified	not classified



## 2.2 Marking elements

Danger symbols: -

Warning symbols: -

Expressions indicating the type of threat: -

Precautionary statements: -

## 2.3 Other hazards

Not stated.

The product does not meet the PBT or vPvB criteria in accordance with Annex XIII of Regulation (EC) No. 1907/2006.

## SECTION COMPOSITION / COMPONENTS INFORMATION

### 3.

#### 3.1 Substances

Substance name	Nr CAS	Nr EC	Indeks numer	Content. [mass %]	Classification compatible with the Council directive 67/548/EWG	Classification compatible with the EU directive 1272/2008 (CLP)
Brown coal	16291-96-6	240-383-3	-	100	Not clasified	Not clasified

The description of expressions R and H is stated in Section 16.

## SECTION FIRST AID MEASURES

### 4.

#### 4.1 Description of first aid measures

**Exposure by inhalation:** Move the exposed person to fresh air.

**Exposure by skin contact:** Remove contaminated clothing and shoes. Wash contaminated skin with plenty of water and soap.

**Exposure through eye contact:** Immediately rinse eyes with plenty of water by lifting the upper and lower eyelids. Remove contact lenses, if they are. If symptoms of irritation appear, consult an ophthalmologist.

**Exposure through the gastrointestinal tract:** Rinse mouth with water. Give a large amount of water to drink. If the suferer feels unwell, provide medical assistance.

#### 4.2. The most important, acute and delayed symptoms and effects of exposure.

Not present.



4.3 Indication of any immediate medical help and detailed handling of the victim. Treat symptomatically. If you have swallowed a large amount, contact your doctor.

## **SECTION PROCEDURE IN CASE OF FIRE**

### **5.**

#### 5.1 Extinguishing media

Suitable extinguishing media: all extinguishing media available.

Unsuitable extinguishing media: not determined.

#### 5.2 Special hazards related to the substance or mixture

During combustion, dangerous products emit: carbon oxides.

#### 5.3 Information for firefighters

Fire fighters participating in the rescue and firefighting operation must absolutely be equipped with protective clothing, personal protective equipment, including respiratory protection devices. Use a breathing apparatus in closed rooms.

## **SECTION PROCEDURE IN CASE OF UNINTENTIONAL RELEASE TO THE ENVIRONMENT**

### **6.**

#### 6.1 Environmental precautions

No special environmental protection measures are required.

#### 6.2 Methods and materials to prevent the spread of contamination and to remove contamination. Collect mechanically accessible equipment. For disposal.

#### 6.3 References to other sections

Informations on suitable personal protective equipment are provided in section 8. Informations on waste disposal are given in section 13.

## **SECTION PROCEDURE WITH SUBSTANCES AND MIXTURES AND THEIR STORAGE**

### **7.**

#### 7.1 Precautions for safe handling

Wear appropriate personal protective equipment (see section 8). Do not eat or drink. Avoid contact with eyes. Avoid inhaling dust. Eliminate sources of ignition. Workers should wash their hands before eating, drinking and smoking. Additional informations on hygiene measures are provided in section 8.

#### 7.2 Conditions for safe storage, including informations on any mutual incompatibilities

Store in a dry and well ventilated place, away from oxidizing substances. Eliminate all sources of ignition.

#### 7.3 Special end use: None.



## SECTION EXPOSURE CONTROL / INDIVIDUAL PROTECTION

### 8.

#### 8.1 Control parameters

There are no established NDS values for this substance.

#### 8.2 Exposure controls

In case of dusting, use only with adequate ventilation.

##### Personal protection:

Respiratory protection: necessary, if the permissible limits are exceeded - mask with a P2 type dust filter;

Eye protection: under normal conditions, it is not required, in case of dust, use safety goggles;

Hand protection: recommended protective gloves, textile;

Body protection: recommended protective work clothing.

##### Protective and hygiene measures:

Wash hands thoroughly after handling the product, before eating, smoking and using the toilet. Wash contaminated clothing before re-use.

##### Environmental exposure controls:

Not required

## SECTION PHYSICAL AND CHEMICAL PROPERTIES

### 9.

#### 9.1 Information on basic physical and chemical properties

Appearance: brown, porous, solid with a grain size of 2-10mm

Determination of physical properties in the working conditions:

Calorific value: 9.500 kJ/kg

Total moisture content: 50%

Ash content: 8%

Sulfur content: 0,8%

Smell: odorless

pH: 4,5-5,5

Ash melting point: 1150°C

Boiling point: No data

Flash-point: 300°C

Upper / lower explosion limit: not applicable

The vapor pressure: not applicable

Density: 750 kg/m<sup>3</sup>

Solubility: insoluble

Partition coefficient n-octanol / water: not applicable



Temperature of self-ignition:	No data
Decomposition temperature:	No data
Dynamic viscosity:	not applicable
Explosive properties:	not applicable
Oxidizing properties:	not applicable

## 9.2 Other informations

### Oxide content indication:

Silica SiO <sub>2</sub>	40,3 %
Iron Fe <sub>2</sub> O <sub>3</sub>	11,0 %
Aluminum Al <sub>2</sub> O <sub>3</sub>	7,58 %
Calcium CaO	18,5 %
Magnesium MgO	2,18 %
Sodium Na <sub>2</sub> O	0,12 %
Potassium K <sub>2</sub> O	0,87 %
Sulfur SO <sub>3</sub>	18,1 %
Titanium TiO <sub>2</sub>	0,61 %
Phosphorus P <sub>2</sub> O <sub>3</sub>	0,06 %
Barium BaO	0,06 %
Manganese Mn <sub>3</sub> O <sub>4</sub>	0,09 %
Strontium SrO	0,15 %
Zinc ZNO	0,01 %

### Phosphorus, fluorine and mercury content indication:

Phosphorus P	262 mg/kg
Fluorine F	52 mg/kg
Mercury Hg	0,004 mg/kg

### Trace elements indication:

Silver Ag	<0,35 mg/kg
Arsenic As	16,2 mg/kg
Barium	537 mg/kg
Cadmium Cd	<0,03 mg/kg
Cobalt Co	13,8 mg/kg
Chrome Cr	48,4 mg/kg
Cuprum Cu	<0,10 mg/kg
Manganese Mn	400 mg/kg
Molybdenum Mo	<0,75 mg/kg



Nickel Ni 22,7 mg/kg  
Lead Pb 24,6 mg/kg  
Zinc Zn 64,7 mg/kg

## SECTION STABILITY AND REACTIVITY

### 10.

#### 10.1 Reactivity

The product is not reactive under normal conditions of use and storage.

#### 10.2 Chemical stability

The product is stable under the recommended conditions of use and storage.

#### 10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, no hazardous reactions occur.

#### 10.4 Conditions to avoid

Sources of fire.

#### 10.5 Incompatible materials

Strong oxidants.

#### 10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous product decomposition does not occur.

## SECTION TOXICOLOGICAL INFORMATION

### 11.

#### 11.1 Information on toxicological effects

Skin corrosion / irritation: based on available data, the classification criteria are not met.

Serious eye damage / eye irritation: based on available data, the classification criteria are not met.

Sensitizing effects: based on available data, the classification criteria are not met.

Mutagenic activity: 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.

Specific target organ toxicity - single exposure: based on available data, the classification criteria are not met.

Toxic effects on target organs – repeated exposure: based on available data, the classification criteria are not met.

Delayed, immediate and chronic effects of short and long-term exposure: not reported.



## SECTION ECOLOGICAL INFORMATION

### 12.

#### 12.1 Toxicity

The substance is not toxic to aquatic organisms.

#### 12.2 Persistence and degradability

It is not biodegradable.

#### 12.3 The ability to bioaccumulation

Does not bioaccumulate.

#### 12.4 Mobility in soil.

Substance virtually insoluble in water, mobility is negligible.

#### 12.5 Results of PBT and vPvB assessment.

Not applicable.

#### 12.6 Other adverse effects.

None

## SECTION WASTE TREATMENT

### 13.

#### 13.1 Methods of waste treatment

Proceed in accordance with applicable legal regulations regarding waste disposal. Do not drop into water tanks and sewage systems.

Recovery / recycling / liquidation of packaging waste should be carried out in accordance with applicable regulations.

NOTE: Only packages that have been completely emptied and cleaned can be recycled! Use the services of companies with appropriate permissions.

## SECTION INFORMATION CONCERNING TRANSPORT

### 14.

14.1 UN number: is not subject to transport regulations

14.2 UN proper shipping name: not applicable

14.3 Hazard classes in transport: not applicable

14.4 Packing group: not applicable

14.5 Environmental hazards: None

14.6 Special precautions for users: no special provisions

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: not applicable.



## SECTION INFORMATION REGARDING LEGAL REGULATIONS

### 15.

#### 15.1 Safety, health and environmental regulations specific to the substance and mixture

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures (CLP)
- Regulation (EC) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- Regulation of the Minister of Economy of 21 December 2005 on essential requirements for personal protective equipment (Dz.U.05.259.2173), as amended
- Regulation of the Minister of Labor and Social Policy of 29 November 2002 on the highest allowable concentrations and intensities of agents harmful to health in the work environment (Dz.U.02.217.1833), as amended
- Regulation of the Minister of the Environment of September 27, 2001 regarding the waste catalog (Dz.U.01.112.1206)
- Regulation of the Minister of Health of 20 April 2005 on tests and measurements of agents harmful to health in the work environment (Dz.U.05.73.645), as amended
- Regulation of the Minister of Health of 30 December 2004 on health and safety at work related to the presence of chemical agents at work (Dz.U.05.11.86)
- The Act of 14 December 2012 on waste (Dz.U.13.0.21)
- Act of 11.05.2001 on packaging and packaging waste (01.63.638) with subsequent changes
- Act of 25 February 2011 on chemical substances and mixtures thereof (01.63.322)
- Regulation of the Minister of Health of 20 April 2012 on the labeling of packaging of dangerous substances and dangerous mixtures and some mixtures (12.0.445)15.2

#### Chemical safety assessment

The chemical safety assessment has been conducted.





## SECTION OTHER INFORMATIONS

### 16.

#### Glossary:

CAS - Chemical Abstracts Service

DNEL - derived level that does not change

EINECS - European Inventory of Existing Chemical Substances

LC50 - lethal dose for 50% of the research population

NDS - the highest acceptable concentration

PBT - persistent, bioaccumulative and toxic vPvB - very persistent  
and very bioaccumulative

Essential training: Safety data sheet introduction.

The information specified in the Safety Data Sheet is based on our current state of knowledge and experience. They should only be considered as an aid to the safe use of the product.

The information specified in the card should not be treated as a guarantee of the properties of this product. The purpose of the safety data sheet is to enable users to take the necessary measures to protect health and safety at the workplace and protect the environment.