

SAFETY DATA SHEET
ACCORDING TO Regulation (EC) No. 1907/2006**Date of Issue:** 03.10.2001**Version:** 6.0**Revision Date:** 01.06.2015**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier**Product name: **BLACK POWDER**

Other names: VESUVIT

1.2 Relevant identified uses of the substance or mixture and uses advised againstComponent for manufacturing of explosives or for blasting operations – depending on the type of black powder.
Do not use for other purposes.**1.3 Details of the supplier of the safety data sheet**

Explosia a.s.	tel.:	+420 466 825 202
530 50 Pardubice - Semtin	fax:	+420 466 822 941
Czech Republic	e-mail:	sds@explosia.cz

1.4 Emergency telephone number

Producer:

tel.: +420 466 824 402

fax: +420 466 824 448

National advisory body:

Toxicological Information Centre (TIS): Hospital for Occupational Diseases, Na Bojišti 1171/1, 128 21 Prague 2,
tel. 224 919 293, 224 915 402 or 224 914 575**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****2.1.1 Classification according to Regulation (EC) No 1272/2008**

Expl. 1.1; H 201

Skin Irrit. 2; H315

2.1.2 Additional information

For full text of Hazard- and EU Hazard statements see section 16.

2.2 Label elements**Hazard pictograms:****Signal word:**

Danger.

Components of mixture for introducing on label:

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Hazard statements:

H201 Explosive; mass explosion hazard.

Precautionary statements:

P501 Dispose of contents/container to national regulations for disposal of explosives.

Additional information on label:

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Note:

Directive 1272/2008 stipulates in Annex 1, Art. 1.3.5 that explosives placed on the market with a view to obtaining an explosive or pyrotechnic effect shall be labelled and packaged in accordance with the requirements for explosives only, therefore the manufacturer marks the product on the basis of recommendations of the National Advisory Body with elements used for explosibility.

2.3 Other hazards

The product does not meet the criteria for PBT, vPvB.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**Description of the mixture:**

Mixture of potassium nitrate, sulphur and charcoal.

Hazardous ingredients:

Identification name	CAS No ES No Index No Registration No	Content %	Classification according to (ES) 1272/2008 (CLP)
Potassium nitrate	7757-79-1 231-818-8 - -	max. 77.0	Ox. Sol. 3; H272
Sulphur	7704-34-9 231-722-6 016-094-00-1 01-2119487295-27-	max. 13.0	Skin Irrit. 2; H315

For full text of Hazard- and EU Hazard statements see section 16.

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures****General notes:**

In all cases keep the victim at physical and psychic rest and keep warm. Never give anything to an unconscious person. In heavier cases, always after contact with eyes and if swallowed, seek medical advice.

Following inhalation:

Break off the exposition. Move the victim to fresh air (not on the sun). If not breathing, give artificial respiration.

Following skin contact:

Remove contaminated clothing. Wash affected area with water and soap and use skin protective cream.

Following eye contact:

Rinse with water for at least 15 minutes. Move to the physician, while continue rinsing.

Following ingestion:

Rinse mouth out with clean water, give 0,5 l water to drink, do not induce vomiting, and seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

May cause irritation of skin in case of repeated or prolonged exposure.

4.3 Indication of any immediate medical attention and special treatment needed

No data.

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media: water spray, foam. Adapt extinguishing media to the kind of fire.
Unsuitable extinguishing media: powders.

5.2 Special hazards arising from the substance or mixture

Explosive very sensitive to ignition. It is initiated easily by spark and flame.. In case of burning: great danger of explosion. Try to prevent the spread of fire. If there is a danger of affecting the product by fire, do not extinguish.

Warn surroundings of danger of explosion and evacuate immediately to a safe distance. In case of burning, toxic and irritant gases are formed.

5.3 Advice for fire-fighters

Self-contained breathing apparatus and protective clothing conforming to EN 469.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid spraying or blowing-up by wind. Avoid the free movement of persons in contaminated area. Wear personal protective equipment. Avoid contact of spilled material with open fire, electric sparks and aggressive chemical compounds.

6.2 Environmental precautions

Avoid discharge to surface- and groundwater. If it is not possible, inform police and fire-fighters.

6.3 Methods and material for containment and cleaning up

Sprinkle spilled powder with water, sweep up carefully and place into impermeable containers. Wash spillage area with plenty of water. Dispose by burning only in the place approved for explosives burning in accordance with national regulations.

6.4 Reference to other sections

More detailed disposal instructions see section 13, personal protective equipment see section 8.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with regulations relating to explosives. Keep away from open flame, heat, do not eat, drink or smoke. Maximum care should be taken during handling (lifting, transferring, opening of containers) and transportation. Keep away from combustible material. Take precautionary measures against static discharges. Observe personal hygiene measures. Wear suitable protective clothing and gloves. Wash with water and soap thoroughly after handling. Ensure drink water for the first-aid.

7.2 Conditions for safe storage, including any incompatibilities

Store according to national regulations relating to explosives.

Handle dispatch containers carefully. Do not expose to mechanic and thermal stress. Store under temperature to 30 °C in sufficiently ventilated storing spaces with conductive floor.

7.3 Specific end use(s)

Manufacturing of explosives. Blasting operations. Observe safety regulations for processing of explosives. To be used within 3 years after manufacturing.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Exposition limits according to Czech government statute No. 361/2007 Sb. in actual version

Occupational exposure limit values:

Substance / State	Long term mg/m ³	Short term mg/m ³
Sulphur (powder)/ Poland	NDS: 10	-

8.1.2 Monitoring procedures

To ensure observance of Czech government statute 361/2007 Sb. and to observe obligations included.

8.1.3 Biological limit values

Not determined in Czech Republic and European Union.

8.1.4 DNEL and PNEC values

Not determined

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Process enclosures, local exhaust, general ventilation.

8.2.2 Personal protective equipment

Protective clothing shall be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. All used personal protective equipment shall conform Regulation 89/686/EEC.

Eye and face protection - chemical goggles;

Skin protection - protective gloves depending on operation conforming EN 374, protective clothing, boots, cap;

Respiratory protection – respirator with filter P2 if needed.

8.2.3 Environmental exposure controls if needed

Avoid release to the environment. If it is impossible, product shall be removed safely from the place of leakage. In case of leakage of great amount of explosive to air or water sources, soil or sewer system, inform relevant authorities about leakage.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	granular substance or mild powder of grey-black colour
Odour:	odourless
Odour threshold:	not applicable
pH :	not applicable
Melting point/freezing point:	not available
Initial boiling point and boiling range:	not available
Flash point:	not applicable
Evaporation rate:	not applicable
Flammability:	not applicable - explosive
Upper flammability or explosive limits:	not applicable
Lower flammability or explosive limits:	not applicable
Vapour pressure:	not applicable
Vapour density:	not applicable
Relative density:	1.5 – 1.9 g/cm ³
Solubility:	partly soluble in water
Partition coefficient: n-octanol/water:	not available
Auto-ignition temperature:	not applicable - explosive
Decomposition temperature:	not applicable
Viscosity:	not applicable
Explosive properties:	Expl. 1.1
Oxidising properties:	not applicable - explosive

9.2 Other information

Bulk density: min. 0.85 g/cm³.

Flash point: 290-310 °C.

Impact sensitivity: min. 5 J.

High sensitivity to friction and spark.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Explosive.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Unknown.

10.4 Conditions to avoid

High temperature, strong impact, friction, direct sun light.

10.5 Incompatible materials

Strong acids and alkalis.

10.6 Hazardous decomposition products

Oxides of nitrogen, sulphur and carbon.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

Acute toxicity:	Unclassified.
	Potassium nitrate LD ₅₀ > 2000 mg/kg (OECD 425)
	Sulphur LD ₅₀ > 2000 mg/kg (OECD 425)
Skin corrosion/irritation:	not containing these substances (or less than classification limit)
Serious eye damage/irritation:	Causes skin irritation. Skin Irrit. 2; H315
Respiratory or skin sensitisation:	not containing these substances (or less than classification limit)
Germ cell mutagenicity:	not containing these substances (or less than classification limit)
Carcinogenicity:	not containing these substances (or less than classification limit)
Reproductive toxicity:	not containing these substances (or less than classification limit)
STOT-single exposure:	not containing these substances (or less than classification limit)
STOT-repeated exposure:	not containing these substances (or less than classification limit)
Aspiration hazard :	not containing these substances (or less than classification limit)

11.2 Likely routes of exposure

Contact with skin and by inhalation of powder.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Unclassified.
Potassium nitrate – 96-h LC₅₀: 1378 mg/l (OECD 203)

12.2 Persistence and degradability

Lack of data.

12.3 Bioaccumulative potential

Lack of data.

12.4. Mobility in soil

Lack of data.

12.5 Results of PBT and vPvB assessment

Assessment was not carried out.

12.6 Other adverse effects

Lack of data.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Substance/mixture: Sprinkle spilled powder with water, sweep up carefully and place into impermeable containers. Wash spillage area with plenty of water. Dispose by burning only in the place approved for explosives burning in accordance with national regulations.

Packaging: Incinerate only in the approved place in accordance with national regulations relating to explosives.

Waste codes / waste designations according to EWC:

16 04 03 N Other waste explosives

SECTION 14: TRANSPORT INFORMATION

14.1 UN number:	0027
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14.2 UN proper shipping name:	BLACK POWDER (GUNPOWDER), granular or as a meal
14.3 Transport hazard class:	1
14.4 Packing group:	
14.5 Environmental hazards:	no
14.6 Special precautions for user:	no
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	not applicable
14.8 Other applicable information:	
- for ADR/RID	
Classification code:	1.1D
Label:	1
- for IMDG	
EmS	F-B, S-Y
- for IATA	Air transport is forbidden

SECTION 15: REGULATORY INFORMATION

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

EU Regulations:

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), in the wording of later regulations

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP), in the wording of later regulations

Dangerous Substances Directive 67/548/EHS

Dangerous Preparations Directive 1999/45/ES

European Waste Catalogue (EWC)

15.2 Chemical safety assessment

Assessment was not carried out.

SECTION 16: OTHER INFORMATION

Changes to the previous version:

Version 6.0 – Product classified in accordance with Regulation no. 1272/2008/EC.

Abbreviations:

CAS	Chemical Abstracts Service
EN	European standard
EWC	The European Waste Catalogue
PEL	Permissible Exposure Limit, long-term limit (8 hours)
NPK-P	Maximum allowable concentrations of chemicals in the workplace atmosphere, short-term limit
CLP	Regulation No. 1272/2008/EC
REACH	Regulation No. 1907/2006/EC
PBT	Persistent, bioaccumulative and toxic
vPvB	very persistent and very bioaccumulative
ADR	The European Agreement concerning the International Carriage of Dangerous Goods by Road
RID	Regulations concerning the International Transport of Dangerous Goods by Rail
IMDG	The International Maritime Dangerous Goods
IATA	The International Air Transport Association

Full text of data used for classification:

Expl. 1.1	Explosive, Division 1.1
Ox. Sol. 3	Oxidising solid, Category 3

Skin Irrit. 2 Skin corrosion/irritation, Category 2

H201 Explosive; mass explosion hazard.
H272 May intensify fire; oxidiser.
H315 Causes skin irritation.

P501 Dispose of contents/container to national regulations for disposal of explosives.

Key literature references and sources for data

legislation, chemical databases and tables

Relevant data for classification

The mixture is classified on the basis of the conventional calculation method.

Instructions for training

To use information from this SDS, to emphasize explosiveness, careful handling, professional and health qualification.

The information provided in this Safety Data Sheet is based on the present state of our knowledge and experience and are intended to describe our product with respect to possible safety demands. The information is not to be considered a warranty of quality specification. Recipients of our product must take responsibility for observing existing laws and regulations.