

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product ID:	Graphite cryptocrystalline
1.2 Areas of use:	Graphite cryptocrystalline is intended for use in foundry and metallurgical industry and other industries.
1.3 Information about the supplier:	
- Manufacturer / Supplier	Joint Stock Company "Krasnoyarskgraphite"r.
- Mailing address	Krasnoyarsk, Priboynaya, house 19
- Post code / place	660012, Russian Federation
- Phone number / fax	+7 (391) 261-90-53 / +7 (391) 269-40-44
- E-mail address of the competent person	krsgrafit@yandex.ru

2. HAZARDS IDENTIFICATION

2.1 Classification of the hazard of the substance or mixture

2.1.1 Classification in accordance with Regulation (EC) № 1272/2008 (CLP):

STOT RE 2, H373

2.1.2 Additional Information:

The full text of the Hazard- and danger-statements of the EU: see p. 16.

2.2 Elements of marking (CLP):

Classification in accordance with Regulation (EC) № 1272/2008 [CLP]

Danger pictograms



Signal word:

Warning

Hazard statements:

H373: It can affect the lungs and gastrointestinal tract as a result of repeated or prolonged exposure to inhalation

Preventive measures:

- P260: Do not breathe gas / fumes / dust / aerosols

Reacting:

- P312: If you feel unwell, seek medical help

Background information on hazards (EU):

Unsuitable

2.3 Other hazards

Product does not contain SVHC substances > 0,1% in accordance with the regulations (EC) № 1907/2006 §59 (REACH) Substances in the mixture do not meet the criteria PBT/vPvB according to REACH, attachment XIII.

3. HAZARDOUS INGREDIENTS

3.1 General technical characteristics of the product: Mixture

Declaration of Ingredients in accordance with CLP (EC) № 1272/2008:

CAS No	EC No	% [weight]	Name (IUPAC)	Classification according to Regulation (EC) No 1278/2008 (CLP). 100
7782-42-5	231-955-3	95,4	Graphite	STOT RE 2 H373
14808-60-7	238-878-4	2,6	Quartz (SiO ₂)	STOT RE 2 H373
7732-18-5	231-791-2	2	Water	No

Full text of formulations of risk factors, 71: see p..16.

4. FIRST AID MEASURES

4.1 FIRST AID MEASURES

INHALATION

Fresh air, peace, warmth. If necessary, seek medical help.

SKIN

Rinse with running water and soap.

EYES

Wash off with plenty of running water. If necessary, seek medical help.

SWALLOWING

Abundant drinking of water. If necessary, seek medical help.

Contraindications

None

4.2 The most important symptoms and effects, both acute and delayed

Inhalation

Cases of acute poisoning for this product are not described.

Skin

Prolonged contact with the product can cause swelling, redness, soreness, pustular diseases, dermatitis.

Eyes

With prolonged contact, redness, conjunctivitis, irritation of the cornea.

Swallowing

Cases of acute poisoning for this product are not described.

4.3 Indication of the need for immediate medical attention and special treatment

None

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Foam, carbon dioxide, dry powder, sprayed water

Unsuitable extinguishing media

None

5.2 Unusual fire and explosion hazards

Hazardous combustion products:

Dust can glow in an oxygen-containing atmosphere above 350 ° C. During combustion and in the event of a fire, carbon monoxide / carbon dioxide.

5.3 Recommendations for firefighters

No, if ventilation is insufficient, use respiratory equipment (against carbon monoxide / carbon dioxide).

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency measures

6.1.1 For non-emergency personnel:

Avoid inhalation of product dusts.

Protective equipment:

If dust comes in during treatment, use a face shield (P1).

Emergency procedures:

Isolate the hazardous area. Remove unauthorized persons. In a hazardous area to enter the protective equipment. Eliminate sources of fire. First aid is provided to the injured. Send victims to a medical facility.

In case of fire, use a fireproof suit complete with a self-rescuer.

6.1.2 For emergency services:

Remove the damaged packaging from the hazardous area. When spilling, protect with earthen shaft, fill it with inert material, collect in dry containers.

6.2 Measures to protect the environment

Do not allow to enter drainage system, sewerage and surface water.

6.3 Methods and materials for containment and purification

Place the placer in a mechanical manner, place in appropriate containers for disposal.

6.4 Link to other sections

Act as directed by section 5.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

General exchange supply and exhaust and local ventilation system

Use personal protective equipment

Avoid dust formation of the product.

Advice on protection against fire and explosion:

raphite dust with particle sizes from 4 to 40 µm can explode in a wide range of concentrations. The minimum ignition energy is 1 kJ for dust. The dust tested was rated as a class St.1. Denkevits, A. (2003)

7.2 Conditions for safe storage, including any incompatibilities

The product, packed in bags, should be stored in closed warehouses; Packaged product in soft specialized containers should be stored in accordance with the instruction manual.
The shelf life of the product is unlimited if stored under normal conditions in a closed storage room.

Incompatible substances or mixtures

Oxyfluorides, alkali metals, halogens, oxygen-containing halides.

7.3 Specific application

No information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Graphite (Dust), AGW, 10 mg / m³ (inhalation) and 3 mg / m³ (alveoli)

8.2 Impact monitoring

8.2.1 Appropriate technical controls:

Procedure for measuring exposure limits DIN EN 481

Substance / mixture of associated measures to prevent exposure during use:

None

Structural measures to prevent exposure:

None

Organizational measures to prevent exposure:

None

Technical measures to prevent exposure:

General exchange supply and exhaust and local ventilation system

8.2.2 Individual protection means:



8.2.2.1 Eye and face protection:

Protective glasses

8.2.2.2 Skin protection:

Latex gloves

8.2.2.3 Respiratory protection:

Dust mask (P1)

8.2.2.4 Thermal hazards:

None

8.2.3 Exposure control:

Substance / mixture of related measures to prevent exposure:

No, if they are processed in accordance with the description.

Measures How to prevent exposure:

Regular monitoring of the dust content of the product in the air of the working area. In the premises for work with the product, a hermetic execution of equipment, tanks and connecting units.

Organizational measures to prevent exposure:

No, if they are processed in accordance with the description.

Technical measures to prevent exposure:

Regular dry cleaning of dust in production facilities. Maximum mechanization and automation of the technological process.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance

Loose powder black

b) Smell

Without smell

c) Odor threshold

None

d) pH

None

e) Melting / freezing point

3900 ° C at P = 105 kg / cm³

f) Initial boiling point and boiling range

The product is not a flammable solid in the sense of the Regulation of the European Commission (EC) № 440/2008, method A.10. And this is not a flammable solid in the sense of classification criteria set out in Regulation (EC) № 1272/2008 (rules CLP).

g) Flash Point

The product is not a flammable solid in the sense of the Regulation of the European Commission (EC) № 440/2008, method A.10. And this is not a flammable solid in the sense of classification criteria set out in Regulation (EC) № 1272/2008 (rules CLP).

h) Evaporation rate

Not applicable

i) Upper / lower flammability or explosive limits

The product is not a flammable solid in the sense of the Regulation of the European Commission (EC) № 440/2008, method A.10. And this is not a flammable solid in the sense of classification

criteria set out in Regulation (EC) № 1272/2008 (rules CLP).

j) Vapor pressure
Not applicable

k) Vapor Density
Not applicable

l) Relative density
For a foamed graphite powder lot without 2205/09, the density at 25 ° C, measured by the xylene method in accordance with DIN 51901: 2006-11, is equal to $\rho = 2.1618 \text{ g / cm}^3$ (the average value of two separate determinations)

m) Solubility
Not soluble in organic solvents.
Does not dissolve in water.

n) Dissolution ratio: n-octanol / water
None

o) Autoignition temperature
The product is not a flammable solid in the sense of the Regulation of the European Commission (EC) № 440/2008, method A.10. And this is not a flammable solid in the sense of classification criteria set out in Regulation (EC) № 1272/2008 (rules CLP).

p) Decomposition temperature
None

r) Viscosity
None

s) Explosive properties
The product is not a flammable solid in the sense of the Regulation of the European Commission (EC) № 440/2008, method A.10. And this is not a flammable solid in the sense of classification criteria set out in Regulation (EC) № 1272/2008 (rules CLP).

t) Oxidizing properties
Oxidized

9.2. Additional Information

No information is available for the product as a whole

10. STABILITY AND REACTIVITY DATA

10.1. Reactivity

The product is stable under normal conditions of handling, storage and transport

10.2. Chemical resistance

Stable under normal storage conditions

10.3. Possibility of hazardous reactions

Oxidized

10.4. Conditions to Avoid

None

10.5. Incompatible materials

Interacts with oxyfluorides, alkali metals, halogens, oxygen-containing halides

10.6. Hazardous decomposition products

None

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- *Acute Toxicity:*

LD₅₀ > 2000 mg / kg, w / w, rats
LD₅₀ > 2000 mg / kg, Ing, rats, 4h
LC Is not achieved

- *Corrosion / skin irritation:*

Based on the results of the In vivo study, the expanded graphite powder should be classified not as irritant but as corrosive in accordance with the provisions set forth in the rule (EC) № 1272/2008.

- *Serious eye damage / irritation:*

Based on the results of the In vivo study, the expanded graphite powder should be classified not as irritant but as corrosive in accordance with the provisions set forth in the rule (EC) № 1272/2008.

- *Sensitization*

Graphite powder is not a skin sensitizer according to Regulation (EC) 1272/2008.

- *Mutagenicity of germ cells*

in vitro: The expanded graphite powder did not cause a mutagenic effect (induction of gene mutation) in this bacterial reverse mutation assay under test conditions and with the bacterial strains used.
in vivo: None

- *Carcinogenicity*

Does not have carcinogenic properties

- *Репродуктивная токсичность*

NOAEL (For the study of the parental, reproductive and developing) was defined as a high (limiting) dose level of 11 500 mg / kg of food

- *Property Valuation Summary CMR*

The product does not have carcinogenic and mutagenic properties.

- *STOT- Single exposure*

Does not have hazardous properties with a single exposure

- STOT- multiple exposure
May cause lung damage due to repeated or prolonged exposure to inhalation
- Danger of aspiration
NOAEL 8 mg / m³ based on histopathological examination of the respiratory tract. Graphite powder showed the effects to be expected for poorly soluble dust with low toxicity.

12. ECOLOGICAL INFORMATION

12.1 Токсичность

Acute (short-term) toxicity:

A fish:

LC50 > 100 mg / l fish, 96 h

Crustaceans:

NOEC ≥ 100 mg/l, *Daphnia magna*, 48 h

Algae / aquatic plants:

NOEC ≥ 100 mg / l *Pseudokirchneriella subcapitata*, 72 h

Other organisms:

EC20 > 1 012,5 mg/l Activated sludge of predominantly domestic wastewater, 3 h

Chronic (long-term) toxicity:

A fish:

None

Crustaceans:

None

Algae / aquatic plants:

None

Other organisms:

None

12.2 Persistence and propensity to degradation

Abiotic Degradation:

None

Physically and photochemical elimination:

None

Biodegradation:

None

12.3 Potential for bioaccumulation

The partition coefficient of n-octanol / water (Log Kow):

The bioaccumulation factor (BCF):

12.4 Mobility in soil

Known or predicted distribution to the environment:

None

Surface tension:

None

Adsorption / desorption:

None

12.5 PBT results and estimates vPvB

The substance is not PBT / vPvB

12.6 Other side effects

Information is absent

12.7 Additional Information

Information is absent

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

The safety measures for handling waste are similar to the measures used to handle finished products. When disposing of waste, consult with regional experts in the field of waste management. Do not allow to enter drains.
Disposal according to the directive EC 91/692 / EEC.

13.2 Relevant provisions concerning waste

The allocation of code numbers / waste labeling shall be in accordance with EAKV for the industry and industrial processes.

13.3 Remarks

Waste should be divided into categories that can be handled separately by local or national waste management facilities. Please consider the relevant national or regional provisions..

14. TRANSPORT INFORMATION

14.1 UN Number	Not subject to regulations for the transport of dangerous goods
14.2 Proper Shipping Name	It does not matter
14.3 Hazard Class	It does not matter
14.4 Packaging Group	It does not matter

<p>14.5 Environmental hazards</p> <p>14.6 Special precautions for the user</p> <p>14.7 Transportation of containers in accordance with Annex II of MARPOL 73/78 and the Code МПОГ</p> <p>14.8 Information on each of the UN Model Regulations</p> <ul style="list-style-type: none"> • Transport of dangerous goods by road, rail and inland waterway transport (ДОПОГ/МПОГ/ВОПОГ) 	<p>None (not hazardous to the environment in accordance with technical regulations) No additional information available.</p> <p>It does not matter</p> <p>Not subject to ДОПОГ, МПОГ and ВОПОГ</p>
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15. APPLICABLE LEGISLATION	
<p>15.1 Safety, health and environmental protection standards / specific legal provisions for the substance or mixture</p> <p>The relevant provisions of the European Union (EC)</p> <ul style="list-style-type: none"> • Regulation 649/2012 / EC on the export and import of hazardous chemicals (PIC) He перечислен. • Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS) Not listed. • Regulation 850/2004 / EC on Persistent Organic Pollutants (CO3) Not listed. • Limitations in accordance with REACH, Annex XVII Not listed. • List of Substances to be Authorized (REACH, Annex XIV) Not listed. <p>Directive 2011/65 / EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Applications II Not listed.</p> <p>Regulation 166/2006 / EC on the establishment of the European Pollutant Release and Transfer Registers (PBПЗ) Not listed.</p> <p>Directive 2000/60 / EC establishing a framework for Community action in the field of water policy (PBД) Not listed.</p> <p>National regulations The substance is included in the following national regulations: - EINECS/ELINCS/NLP (Europe).</p> <p>15.2 Material Safety Assessment No data.</p>	

16. ADDITIONAL INFORMATION:
H373: May cause lung damage due to repeated or prolonged exposure to inhalation

P260: Do not breathe gas / fumes / dust / aerosols

P312: If you feel unwell, seek medical help

Acronyms:

CLP - Regulation (EC) No 1272/2008 on the classification, labeling and packaging of substances and mixtures

EINECS - European Inventory of Existing Commercial Chemical Substances

ELINCS - European Inventory of Identifiable Chemicals

MARPOL - International Convention for the Prevention of Pollution from Ships (abbr. of «Marine Pollutant»)

REACH - Registration, Evaluation, Authorization and Restriction of Chemicals

IUPAC - International Union for Pure Applied Chemistry

vPvB – Very Persistent and Very Bioaccumulative.

PBT – Persistent, Bioaccumulative and Toxic substance.

LC50 – Lethal Concentration to 50 % of a test population.

EC20 - Effective concentration of 20%

DL50 – Lethal Dose to 50% of a test population (Median Lethal Dose).

NOEC: No Observed Effect Concentration

STOT – Specific Target Organ Toxicity

CAS – Chemical Abstracts Service number.

EC – European Community.

BOΠΙΟΓ - Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures

ΔΟΠΙΟΓ - Accord européen relatif au transport international des marchandises dangereuses par route

ΜΠΙΟΓ - Règlement concernant le transport International ferroviaire des marchandises Dangereuses

CTC - A globally harmonized system for the classification and labeling of chemicals developed by the United Nations

Basic Literature References and Data Sources

- Regulation (EC) No. 1907/2006 (REACH), as amended by the 453/2010 / EC

- Regulation (EC) No 1272/2008 (CLP, EC GHS)

GOST R 52729-2007 Graphite cryptocrystalline. General specifications

Renunciation:

The information in this safety data sheet applies only to the specified product in the form that is prepared and is not necessarily valid if this material is used in combination with other materials or in processes not specified in the instructions for use. According to the supplier, this information is accurate and reliable as of the date of this Safety Data Sheet. The responsibility of the consumer consists in determining the conformity of the use of the product in various circumstances. Data from the safety data sheet are not proof of the quality of the product, but only a recommendation for the organization of safe use of the product. In the event of failure to comply with the precautionary measures described in the safety data sheet or product misuse, we are not responsible for the consequences.