1. CHEMICAL PRODUCT IDENTIFICATION AND MANUFACTURER AND/OR SUPPLIER INFORMATION

Technical name	**Amorphous silicon dioxide**
Brief recommendations for use	The products are used: - in the production of tire rubber, used to produce high-quality tires; - in the production of concrete and reinforced concrete products, increases their strength properties, significantly accelerates strength gain, shrinkage resistance, compacts the microstructure of the solution, promotes the development of a pozzolanic reaction. It is used in different concentrations to achieve the required characteristics of concrete / reinforced concrete products. Suitable for the manufacture of particularly high-strength concrete. - for the production of a special type of silicone rubber; - as a filler in paper and cardboard to obtain hygienically clean packaging materials; - as an adsorbent; - as a component of dry construction mixes; - in the paint and varnish industry (thickener, matting agent); - is a permanent component for many products and items of the perfume industry; - in parapharmaceuticals (toothpastes); - in the pharmaceutical industry as an auxiliary substance (included in most pharmacopoeias), for stabilizing suspensions and liniments, as a thickener for ointment bases, and a filler for tablets and suppositories. It is part of the composition of filling materials, reduces the hygroscopicity of dry extracts, and slows down the release of biologically active substances from various dosage forms; - in the production of ceramics, abrasives, for obtaining silicon, in the production of siliceous refractories; - as a carrier of catalysts and chemical plant protection products; - as sorbents and filter powders for the regeneration of petroleum products; - as a high-quality flux in non-ferrous metallurgy processes; - filter powders for beer, oils, juices, matting additives in varnishes and paints; - for obtaining silicon carbide in mechanical engineering - ceramic engines, parts for the aircraft industry.
Package	The products are packaged in bags weighing from 1 kg to 35 kg, big bags weighing no more than 700 kg.
Name of the applicant organization	Limited Liability Company "ANGENIUM"
Manufacturer's name	Limited Liability Company "ANGENIUM"
Address	119048, Moscow, Efremova st., bldg. 20, floor 1, room I, room 3, office 4
Telephone for emergency consultations	+7(903)700-36-20
E-mail	moscowresurs@gmail.com
Regulatory document for production	TU 20.13.24-001-32790096-2024

2. GHS HAZARD IDENTIFICATION

Classification	According to the degree of impact on the body, moderately hazardous products: hazard class 3. GHS classification: not classified.
Warning label	
signal word	Missing
Hazard symbols	Missing
H-phrases	Missing
P-phrases	Missing

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	Concentration (%)	CAS number	EC number
Amorphous silicon dioxide	100	112945-52-5	601-216-3

4. FIRST AID MEASURES

In case of eye contact	Rinse eyes with plenty of running water with wide open palpebral fissure. If necessary, seek medical attention.
When exposed to the skin	Remove excess substance with a cotton swab, rinse with running water. If necessary, seek medical attention.
If swallowed	Drink plenty of water, activated charcoal, saline laxative. If necessary, seek medical attention.
By inhalation	Remove the victim from the polluted atmosphere, free from clothing restricting breathing, rest, warmth. If necessary, seek medical attention.
The most important symptoms	There are no hazards requiring special first aid measures.
Potential dangerous effects	Missing.

5. FIRE FIGHTING MEASURES

Flammability	Non-flammable substance.
Extinguishing methods	By the main source of ignition.
Extinguishing specifics	By the main source of ignition.
Additional Information	Act in accordance with the internal emergency plan and instructions for dealing with accidents and other emergencies. Neutralize all sources of ignition. Do not allow fire extinguishing agents to enter the water environment.

6. ACCIDENTAL RELEASE/LEAKAGE MEASURES

Personal Precautions	Transfer the contents to a working container. Do not allow the substance to enter waterways, basements, sewers. *When waking up indoors:* Collect the product in a separate container, wipe the area with a cloth or rag with hot water and detergent. Use skin protection. Check MPC r.z. and MPC atm. air for product components and combustion products before allowing personnel to work. Waste generated during liquidation of leaks, spills of products (damaged containers, etc.) is disposed of as waste of hazard class IV (low-hazardous) or in places agreed with the territorial body of sanitary and epidemiological supervision.
Environmental Precautions	The main requirements that ensure the preservation of the natural environment are: - maximum sealing of containers, communications and other equipment; - periodic monitoring of the content of harmful substances in the air of the working area;

	- analysis of industrial effluents for the content of harmful substances in them in permissible concentrations; - cleaning the air of industrial premises to acceptable standards for the content of harmful substances before being released into the atmosphere. In case of exposure to the public or the environment, the competent authorities must be notified.
Contamination and cleaning	Recommended: Absorb product with sand or inert absorbent and store in a safe place. Do not use sawdust or other combustible absorbents for absorption. Removal information is in section 13.

7. HANDLING AND STORAGE

Precautions and safe handling	a) Advice for safe handling: Comply with the requirements of current legislation regarding the prevention of accidents at work. Production facilities must be equipped with supply and exhaust and emergency ventilation systems. Maintain cleanliness and order in the production area. b) Technical recommendations for ensuring fire and explosion safety: • mandatory compliance with fire safety rules; • equipping workplaces with primary fire extinguishing equipment. c) Technical recommendations for ensuring environmental protection: • prevent the product from entering the environment. environmental protection should be ensured by control over compliance with maximum allowable emissions.
Secure storage	a) Engineering safety measures during storage: Products in the manufacturer's packaging must be stored in a dry place. Shelf life is 1 year. b) Incompatible substances and materials during storage: oxidizing agents, acids, alkalis.

8. PERSONAL PROTECTION EQUIPMENT

Maximum permissible concentrations in the air of the working area	Amorphous silicon oxide, MPC r.z. = 3/1 mg/m^3.
Personal protection	• Conduct pre-employment and periodic medical examinations of personnel involved in the work. • Avoid direct contact of personnel with the product. • Do not smoke or eat in areas where the product is used or stored. • Wash hands thoroughly before eating. Do not use chemical utensils for eating and drinking. • Take a shower after work.
Equipment	Production facilities must be equipped with supply and exhaust ventilation. When working, it is necessary to use personal protective equipment.

Individual protection means

Choose personal protective equipment according to the operations to be performed and the properties of the product.

Eye protection

When manufacturing products for eye protection, use safety goggles that have passed the test.

Respiratory protection

In the manufacture of products for respiratory protection, use respiratory protective equipment that has passed the tests.

Hand skin protection

In the manufacture of hand protection products, use protective gloves that have been tested.

Special funds

None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Granules, powders, balls
Mass fraction of silicon dioxide in the calcined sample, %, not less than	90,0
Mass fraction of moisture, %, not more than	10,0
Losses on ignition (700 °C, 2 hours), %, not more than	20,0
Mass fraction of substances soluble in water, %, not more than	3,0
pH of aqueous suspension	3,5-9,0
Surface area by nitrogen adsorption method, m^2/g	100,0-900,0
Particle size (determined by laser analyzer), d50, μm	0,7-9
Copper content, mg/kg, no more than	10

Iron content, mg/kg, no more than	500
Manganese content, mg/kg, not more than	10
Bulk density (not compacted), g/l	35-300

10. STABILITY AND REACTIVITY

Chemical stability	The products are chemically stable under normal conditions of storage, transportation and operation.
Solubility	Not soluble.

11. TOXICITY INFORMATION

Acute toxicity	LD50 = 5,000 mg/kg, i.g., rat; LC50 = 2.08 mg/l, ing., 4 h, rat; LD50 = 5,000 mg/kg, n/a, rabbit.
Respiratory or skin sensitization	The sensitizing effect of the components included in the product has not been established.
Mutagenicity	Does not possess
Carcinogenicity	Does not possess
Reproductive toxicity	Does not possess
Specific target organ toxicity - single exposure	Does not possess.
Specific target organ toxicity - repeated exposure	Does not possess
Aspiration hazard	Does not possess
Chronic effects	Does not possess

12. ECOLOGICAL INFORMATION

Hygiene standards	No data available.
Aquatic microorganisms	LC50 = 100 mg/L, (fish), 4 d; EC50 = 1,003 mg/L, (aquatic invertebrates), 24 h; EC50 = 4,200 mg/L, (cyanobacteria), 72 h; EC50 = 5,000 mg/L, (microorganisms), 20 h.
Persistence and degradability	Decompose in the environment. Vegetable raw materials.
Bioaccumulative potential	No data available.
Mobility in soil	In water and on soil, they undergo biodegradation under the action of microorganisms.
Other side effects	No other adverse environmental impacts (eg ozone depletion, endocrine disruption, global warming potential) are expected from this product.

13. WASTE MANAGEMENT

Waste disposal methods	Waste generation should be avoided or minimized whenever possible. Empty containers and packaging unsuitable for further use, as well as product residues, are disposed of with household waste in specially designated areas. Decontamination is not required.

14. TRANSPORT INFORMATION

14.1 UN number (UN)	No
14.2 Proper shipping and shipping names	*Proper shipping name:* Missing *Shipping name:* **Amorphous silicon dioxide**
14.3 Dangertypes of transport risks ***International Civil Aviation Organization / International Air Transport Association (ICAO / IATA)***	No

Danger/Class/Division	
environmental hazards	No
Signs	
Special Provisions (SP)	
International Maritime Dangerous Goods Code (IMDG)	
Danger/Class/Division	No
Danger to the aquatic environment	No
Signs	
EmS	
Intergovernmental Organization for Rail Transport (RID)/ European Agreement on the Carriage of Dangerous Goods (ADR)	
Danger/Class/Division	No
Signs	No
Hazard identification number	
The code	
Classification code	
emergency cards	
14.4 Packing group	No
14.5 Environmental hazards	No
14.6 Mass transportation according to *application. II to the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78*and code of the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC)	
14.7 Special Precautions	Transportation is carried out by transport of all types in accordance with the rules for the carriage of goods in force on this type of transport, ensuring the safety of products and containers.

15. REGULATORY INFORMATION

HMIS-Hazardous Materials Identification System	It is not a dangerous product.
NFPA 704-Standard Material Hazard Identification System for Emergency Response	

16. ADDITIONAL INFORMATION

The data is based on current knowledge, however, it does not constitute a guarantee of any specific properties of the product and does not establish any contractual relationship valid from a legal point of view.

Safety disclaimer:	The information provided in this Material Safety Data Sheet is based on data believed to be accurate as of the date of preparation of this Material Safety Data Sheet. No responsibility is accepted for any damage or injury caused by abnormal use or due to non-compliance with recommended practices. The above information and product are provided on the condition that the person receiving them should make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no permission is granted or implied for the use of any patented invention without a license. The above information is believed to be accurate and reflects information available to the

manufacturer. However, this does not entail a guarantee for all the specific characteristics of the goods and does not serve as the basis for the emergence of a contractual relationship from a legal point of view. The laws and regulations currently in force must be observed by the successor of the manufacturer under his owna responsibility.