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1. IDENTIFICATION

1.1 – Product Identification: Natural Inorganic Flocculant

1.2 – Identification Code: 19.004.R

1.3 – Recommended Uses: Water Treatment

1.4 – Company Name: MJV INTERNATIONAL TRADE LLC

1.5 – Emergency Phone: CEATOX 0800-148110

2. HAZARDS IDENTIFICATION

Most important hazards: Respiratory system when exposed to prolonged periods without using PPE.

Product effects

- Adverse effects on human health: when prolonged exposure without the use of PPE, it can cause damage to the respiratory system
- Environmental effects: natural inorganic product, not harmful to the environment.
- Physical and chemical hazards: not applicable

Specific hazards: Respiratory disorders if handled without PPE and for long periods.

Main symptoms

Eyes: may cause irritation when in direct contact without the use of PPE.

Skin: May cause irritation when in prolonged contact without using PPE.

Ingestion: It is not considered toxic, but a doctor should be consulted due to its binding properties.

Inhalation: Can cause damage to the respiratory system when in contact without the use of PPE.

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Emergencies Overview: Not applicable.

Labeling elements according to GHS:

Precautionary phrases:

P234 - Store only in the original container. Absorb spilled product to avoid material damage.

P264 – Wash your hands carefully after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Risk Pictogram: Not applicable.

3. COMPOSITION AND INFORMATION ABOUT INGREDIENTS

Product type: Mixture of modified volcanic ash and sand

Common or generic chemical name: Flocculant

Chemical Nature: Flocculant

Ingredients or impurities that contribute to the hazard:

Chemical Name	Concentration	N° CAS
SiO ²	24,40%	7631-86-9
Al ² O ³	29,15%	1344-28-1
Na ² O	24,67%	1313-59-3
K ² O	1,75%	12136-45-7
Fe ² O ³	0,87%	1309-37-1
CaO	19,05%	1305-78-8
MgO	0,11%	1309-48-4

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4. FIRST AID ACTIONS

First aid

Inhalation: Remove the person to an open environment with fresh air and let them rest in a position where they can breathe easily.

Skin Contact: Contact a doctor and seek medical attention.

Eye Contact: wash eyes with plenty of water for 15 minutes, keeping the eyelids apart. If discomfort persists, seek medical help.

Ingestion: Do not induce vomiting. Give water and call a doctor.

What actions should be avoided: Not applicable.

Protection for providers of first aid: Not applicable.

Notes to doctor: Not applicable.

5. FIRE FIGHTING MEASURES

Appropriate extinguishing media: Not applicable. Non-flammable product.

Not recommended extinguishing methods: Not applicable.

Methods specific hazards: Not applicable.

Special firefighting methods: Move containers away from the fire area. Water mist and foam may be used in fires where the product is stored.

Protection of people involved in firefighting: Use respiratory protective equipment and combat clothing.

Specific hazards of chemical combustion: Not applicable.

6. CONTROL MEASURES FOR SPILLS OR LEAKS

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Personal precautions:

- a) Removal of ignition sources: not applicable.
- b) Dust control: it must be handled downwind, with an anti-dust mask.
- c) Prevention of contact with mucous membranes and eyes: wear safety glasses.

Environmental precautions: In case of an accident, collect the excess and dispose of it out of the rain. The product does not pose any risks to the environment or water courses and can be used to reduce turbidity.

Emergency procedure and alarm systems: Non-dangerous product, in case of accident contact the supplier.

Cleaning methods:

- a) Recovery: absorb the spilled product using the available process, preferably by suction, avoiding contact with liquids.
- b) Neutralization: not applicable.
- c) Disposal: the collected material must be packaged, identified and transported in accordance with environmental legislation criteria.

Prevention of secondary hazards: Packaging for reuse and recycling must be washed.

Difference in large and small leaks: Not case of small spills, absorb, avoiding contact with liquids and store in plastic containers for disposal. In case of large spills, contain them by suction and pump them to a safe and suitable location.

7. HANDLING AND STORAGE

Handling

Appropriate Technical Measures:

- a) Prevention of worker exposure: use appropriate PPE as per item 8. PPE must be approved for use only with the respective CA's – Approval Certificates – approved.

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b) Fire and explosion prevention: non-combustible, non-flammable product.

Precautions and guidelines for safe handling:

Keep the product in well-closed packaging, stored in a cool, dry and ventilated place, protected from physical impacts. Keep packaging away from direct, heating sunlight. Avoid contact with moisture, as the product becomes inactive when in contact with it.

Appropriate hygiene measures:

Do not drink, smoke or eat in work areas; remove protective clothing and equipment before entering eating areas storage.

Appropriate technical measures:

Keep containers tightly closed and properly identified, away from moisture.

Suitable conditions: Keep containers tightly closed and properly identified, protected from moisture.

Conditions that should be avoided: Moisture.

Packaging materials

Recommended: Waterproof bags.

Inappropriate: Not applicable.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Specific control parameters

Occupational exposure limit: Dust Control Concentration (mg/m³) 3,0/ (1,19x Q1)

Q: free silica acid content in the powder (%)

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Recommended concentration: 2mg/m³

Inhalable dust: 0,5mg/m³

Crystalline silica: 0,03 mg/m³

Biological indicators: Not applicable.

Other limits and values: Not applicable.

Engineering control measures: Local ventilation and exhaustion.

Appropriate Personal Protective Equipment: In case of direct contact with the product, it is recommended to use:

Eye/Face Protection: Use safety glasses with protector sides.

Skin and body protection: In case of repetitive contact, wear a waterproof apron. Always use rubber gloves and appropriate clothing.

Breath protection: in case of insufficient ventilation, use masks against dust.

Special precautions: Emergency shower and eye wash.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, shape, color): Dry, fine powder, light gray.

Odor: characteristic.

pH : 7,0

Melting point/freezing point: Not applicable.

Initial boiling point and boiling

Temperature range: Not applicable

Flash Point: Not applicable

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Evaporation rate: Not applicable

Flammability: Not flammable

Lower/upper limit of flammability or explosiveness: Not applicable

Vapor pressure: Not applicable

Vapor Density: Not applicable

Density: 0.75 – 0.95g/cm³ C

Solubility: Soluble in water

Auto-ignition temperature: Not applicable

Decomposition temperature: Bigger than 150°C

Viscosity: Not applicable

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperature conditions.

Reactivity: Non-reactive

Possibility of dangerous reactions: Not applicable.

Conditions to Avoid: Moisture

Incompatible materials or substances: Not applicable.

Hazardous decomposition products: Does not generate hazardous decomposition products.

11. TOXICOLOGICAL INFORMATION

Information according to different routes of exposure Toxic acute

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Oral: upper respiratory tract irritation.

Dermal: non-irritating

Ocular: mild eye irritation.

Chronic toxicity: Not applicable.

Main symptoms: Not applicable.

Specific effects: Not applicable.

Substances that may cause interaction, additives potentiation and synergy: Not applicable.

12. ECOLOGICAL INFORMATION

Environmental effects, behaviors and impacts of the product

Ecotoxicity: Biodegradable product

Acute toxicity (fish): Non-toxic Acute toxicity (Daphnia similis): Non-toxic

Bioaccumulative potential: Not bioaccumulative.

Mobility on the ground: Not applicable.

Other adverse effects: Not applicable.

13. CONSIDERATIONS ABOUT FINAL DESTINATION

Recommended methods for applied treatment and disposal

a) Product: Watch local legislation on effluent disposal.

b) Remains of products: shipments of discarded materials must be adapted to the needs of applicable environmental regulations.

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c) Used packaging: in case of reuse, recycling or disposal, packaging must be washed. NOTE: washing water can be disposed of in the sewage system if in accordance with local legislation.

14. TRANSPORTATION INFORMATION

National regulations: Decree No. 96,044 of 05/18/88 – Approves the Regulations for the Road Transport of Dangerous Products. National Land Transport Agency (ANTT): Resolutions No. 420/04, 701/04, 1644/06, 2657/08, 2975/08 and 3383/10.

International regulations: Not determined.

UN's number: Unclassified.

Proper shipping name: Not applicable.

Main or subsidiary risk class/subclass: Not applicable.

Risk number: Not applicable.

Packing group: Not applicable.

Special Recommendations: During loading and unloading operations, dropping packages must be avoided. The product must be stored protected from rain and away from heat sources. Always keep packaging tightly closed.

15. REGULATORY INFORMATION

Decree nº 96,044 of 05/18/88 – Approves the regulations for the Road Transport of Dangerous Products

Ordinance nº 204 of 05/20/97 of the Ministry of Transport. NBR 7500:2009 ABNT

NR 15 – ABNT

NBR 14725 - ABNT (Chemical Product Safety Information Sheet - FISPQ).

NBR 15784 - ABNT (Chemical products used in the treatment of water for human consumption – Health effects – Requirements).

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The regulatory information indicated in this section refers only to the main prescriptions specifically applicable to the product covered by this FISPQ.

The user's attention is drawn to the possible existence of other provisions that complement these prescriptions.

It is recommended to take into account any time of measures or provisions, international, national and local that may be applied.

16. OTHER INFORMATION

Important information: Any other application of the product that involves combined use with another product or other processes is the user's responsibility.

In case of accidents, contact MJV.

Bibliographic references:

- FISPQ – Suppliers
- Self-protection manual - handling and road transport of dangerous products –PP8 (ed. 2006)
- Occupational safety and medicine manual - Atlas - n.16 - 36 ed.
- NR-15 - Ordinance 3214/78, MTb (NR-15, anex XI)
- NIOSH - Manual of Analytical Methods
- NBR 14725 - ABNT (Product Safety Data Sheet chemical- FISPQ).
- NBR 15784 - ABNT (Chemical products used in the treatment of water for human consumption – Health effects – Requirements).
- National Land Transport Agency (ANTT): Resolution No. 420/04

Subtitles and abbreviations:

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ABNT: Brazilian Association of Technical Standards

ACGIH: Is a staff organization of government agencies or educational institutions engaged in occupational health and safety programs.

ACGIH: Develops and publishes exposure limits for hundreds of chemical substances and physical agents.

ANTT: National Land Transport Agency. C.A: Certificate of Approval.

CAS: Chemical Abstracts Service

PPE: Personal Protective Equipment.

GHS: Globally Harmonized System for the Classification and Labeling of Chemicals.

INCQS: National Institute for Health Quality Control.

LD50: Lethal dose for 50% of the infected population

NIOSH: US National Institute for Occupational Safety and Health.

OSHA: US federal agency with authority to regulate and enforce safety and health provisions for industries and businesses in the USA.

TLV-TWA: Is the weighted average concentration allowed for an 8-hour work day

Made in Brazil.