

MATERIAL SAFETY DATA SHEET

Version 1.0

Date of the data sheet: 27.04.2018

Product Name: RIZOLINE, SC

1. Product and Company Identification

Product: RIZOLINE, SC

Usage: Biological product for agriculture intended for pre-sowing processing of legume seeds.

Supplier/Manufacturer: Private Enterprise «BTU-Center»
street Budivelnykiv, 35
Ladyzhin, Vinnytsia Region, 24321
Ukraine

Telephone: +38 (04343) 6-96-28, 6-44-84, 6-40-15

2. Composition/Information on Ingredients

Product description: Biopreparation based on two selective strains of tuber bacteria Bradyrhizobium japonicum, Mesorhizobium ciceri and Rhizobium leguminosarum

Dangerous ingredients: None

3. Hazards Identification

Important hazards: None

4. First Aid Measures

Inhalation: Remove to fresh air. Visit a doctor if an allergic reaction occurs

Skin Contact: Wash with water

Eye Contact: Flush with water

Ingestion: Drink water

5. Fire Fighting Measures

Type of material: Fire-fighting liquid

Extinguishing Media: General measures. Special fire safety measures do not require.

Hazardous Decomposition Products: None

6. Accidental Release Measures

Environmental precautions: Is not toxic

Personal precautions: Respiratory protection is recommended

Destruction and clean up: No special methods of neutralization are needed. Empty packaging should be thrice rinsed, punctured and disposed of as household waste.

7. Handling and Storage

Handling: Ensure adequate ventilation when handling.

Storage: Must be stored under cool, 6 months from the date of manufacture at a temperature from 4 °C to 10 °C.

Incompatible materials: Incompatible with tare mix with strong chemical protection agents plant protection

8. Exposure Controls/ Personal Protection

Technical measures/precautions: Adequate ventilation

Personal protection

Eye Protection: The product may cause slight eye irritation. Safety glasses are recommended.

Skin and body protection: The product is not a skin irritant although an allergic reaction may occur for sensitive people. Wash with soap and water. Visit a doctor if reaction persists

9. Physical and Chemical Properties

Physical state: Liquid

Colour: From cream to brown

Odour: Specific

pH 6.0 – 7.5

Moisture content: Not regulated

Density: 1010,0 ± 10,0 kg/m³:

Solubility: Soluble

Solubility in organic solvents: Soluble

Partition coefficient: Not applicable

Vapour pressure: Not applicable

Boiling point: Not applicable

Melting point: Not available

Flash point: Not available

Explosive properties: Not explosive
Auto-ignition temp: Not available

10. Stability and Reactivity

The working solution of the biological product RIZOLINE, SC is prepared on the day of treatment, if necessary stored in a cool dark place for no more than 4 hours, immediately before use, stir for homogeneity. The working solution is unstable under direct sunlight.

Hazardous decomposition products: None identified
Materials to avoid: None
Conditions to avoid: Avoid very low or high temperatures.

11. Toxicological Information

Acute oral toxicity (effect, organ damage). LD₅₀ > 5000 mg / kg. Species of animals: white rats.
When injected into the gastrointestinal channel LD₅₀, RIZOLINE, SC exceeds 5000 mg / kg. When the oral route to the body, the biological preparation RIZOLINE, SC belongs to low-risk compounds (Class 4 hazard in accordance with GOST 12.1.007-76).

Acute inhalation toxicity (effect, organ damage). In the inhalation route to the organism, the biological preparation RIZOLINE, SC belongs to moderately hazardous products - 3 classes of danger (LD₅₀ > 5001 mg / m³) in accordance with GOST 12.1.007-76.

Cumulative properties for drugs based on the products of vital activity of microorganisms (antibiotics, toxins, etc.). Cumulative effect is not typical for a drug based on live bacteria.

Irritating effect on the mucous membranes of the eyes and skin: Not detected

Toxicological characteristics of other components of the drug. Not toxic

Sensibilizing effect of the drug in the subchronic experiment. Does not show sensitizing properties (Does not have sensitizing effect on guinea pig skin).

Immunomodulatory effect of the drug: Allergic reaction is not detected

12. Ecological Information

Fish toxicity: Not known
Biodegradability: Biodegradable.

13. Disposal Considerations

No special methods of neutralization are needed.

14. Transport Information

Follow the safety requirements applied to the vehicle. Transportation with chemical pesticides, pesticides and other chemicals is not allowed. The product is not classified as a dangerous cargo.

15. Regulatory Information

Symbol: Not applicable to a living organism
Risk Phrases: None – None toxic
Safety Phrases: Keep locked up and out of reach of children, uninformed persons and animals
Wash hands after use

National Legislation: Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act

16. Packing and Labelling

Packages or bottles (cans) from 5 sm³ (ml) to 1 dm³ (l); cans or barrels from 5 dm³ (l) to 200 dm³ (l).

17. Other Information

All information provided in this Material Safety Data Sheet (MSDS) is based on the current state of scientific and technical knowledge and is presented in good faith and believed to be correct. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come into contact with this product.

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