

MATERIAL SAFETY DATA SHEET

1. Identification of the Substance

TITANIUM COAGULANT

Synonyms: inorganic raw material

Description: Titanium compound based composition consistent of titanium and aluminium oxides, hydroxides, chlorides, and oxyhydrochlorides. Appearance: white or light grey paste readily soluble in water. Designed as purification agent for drinking water and wastewaters treatment.

2. Identification of the Company

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3. Hazards Identification

Potential Health Effects

INHALATION:

No toxic evaporation.

EYE CONTACT:

Not irritation or redness.

SKIN CONTACT:

No skin irritation or redness.

INGESTION:

Minimal toxic level. Threshold Limit Value (TLV) was set as 1.0 mg/dm due to impact on water flavor.

CHRONIC EXPOSURE:

No effects of sensibilization, allergy, mutation frequency.
No impact on gonads, or embryo propagation.

TOXIC CLASSIFICATION:

In accordance with GOST 12.1.007-76 «Hazardous Substances: Classification and General Safety Measurements» the substance is attributed to Hazard Class № 4 (low hazardous substances).

4. First Aid Measures.

INHALATION:

No toxic evaporation.

EYE CONTACT:

Flush eyes with water.

SKIN CONTACT:

Flush skin with water.

INGESTION:

Not expected to require first aid measures. Threshold Limit Value (TLV) was set as 1.0 mg/dm due to impact on water flavor.

FIRST AID MEASURES:

Flush affected parts with a plenty of water

5. Fire Fighting Measures

Fire point – n/a.

Spontaneous combustion – n/a.

GENERAL FIRE SAFETY:

The titanium coagulant is fire-safe and explosion safe.

6. Accidental release measures

ACCIDENTAL RELEASE MEASURES:

Flush with a plenty of water.

7. Handling and Storage

SAFETY TIPS:

Store in a well ventilated area. A system of local and/or general exhaust is recommended to keep employee safe. Respiratory protection is generally not required during normal operations but it may be required under poor ventilation.

8. Exposure Controls/Personal Protection

Use chemical safety goggles where dusting or splashing of solutions is possible. Appropriate working clothes and personal protective devices according to current regulations.

9. Physical and Chemical Properties

Appearance: Paste

pH: 2

Boiling point: 120.0°C

Melting Point: 20°C

Flash point: n/a

Fire point: n/a

Conditions of self-combustion: n/a

Oxidation: n/a

Vapor Pressure: n/a

Relative density (20°C): 1.5 kg/m³

Solubility: soluble

10. Stability and Reactivity

Stable under ordinary conditions of use and storage. Shelf life under ordinary conditions of storage 1 year.

11. Toxicological Information

Attributed to Hazard Class 4 (low-hazard substances).

12. Ecological information

Titanium coagulant does not form hazardous products of transformation under direct sunlight exposition. In aqueous media the titanium coagulant forms stabile colloidal compounds such as titanium hydroxide, aluminum hydroxide, and small amount of ferric hydroxide. There are regulations and maximum permissible levels for all of these compounds.

13. Disposal Considerations

Recycle.

14. Transport information

Due to titanium coagulant is readily soluble it has to be treated to avoid water and humidity. The coagulant in form of paste packed in plastic cans of volume from 10 liters and up. Large volumes of the coagulant packed in plastic containers of volume 1000 liters. Containers must be marked properly.

15. Other Information

This document is intended only as a guide to the appropriate precautionary handling of the material.

All information contained herein concerns to the substance indicated under paragraph 1 of this document and can not be applied to any other substance or to any combination of this substance with any other substance and/or material, and/or product in any process.

Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose according safety standards and regulations.

Director

of Open Joint Stock

Company «YaNTK _____ V. P. Rodak