

MATERIAL SAFETY DATA SHEET

(MSDS)

Zinc silicofluoride

1. Product Identification

Synonyms: Zinc silicofluoride CAS No.: 18433-42-6

Chemical Formula: ZnSiF₆.6H₂O

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2. Composition/Information on Ingredients

Product Name: Zinc silicofluoride CAS No.: 18433-42-6

3. Hazards Identification

EMERGENCY OVERVIEW Toxic by inhalation, in contact with skin and if swallowed. Potential Health Effects Eye: Contact with eyes may cause severe irritation, and possible eye burns. Skin: Causes skin irritation. Ingestion: Harmful if swallowed. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. Inhalation: Causes respiratory tract irritation. Chronic: Not available.

4. First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately. Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Notes to Physician:

5. Fire Fighting Measures

General Information: Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Extinguishing Media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

6. Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.

7. Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

8. Exposure Controls/Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low. Exposure Limits CAS# 16893-85-9: Russia: 0.2 mg/m³ TWA Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure. Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

9. Physical and Chemical Properties

Physical State: Solid Color: white Odor: Not available. pH: Not available. Vapor Pressure: Not available. Viscosity: Not available. Boiling Point: Not available. Freezing/Melting Point: Not available. Autoignition Temperature: Not applicable. Flash Point: Not applicable. Explosion Limits, lower: Not available. Explosion Limits, upper: Not available. Decomposition Temperature: Not available. Solubility in water: Very slightly soluble in cold water Specific Gravity/Density: Not available. Molecular Formula: Na₂SiF₆ Molecular Weight: 188.0555

10. Stability and Reactivity

Chemical Stability: Stable. Conditions to Avoid: Incompatible materials. Incompatibilities with Other Materials: Incompatible with strong acids and fluorine. Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, toxic fumes of sodium oxide. Hazardous Polymerization: Has not been reported.

11. Toxicological Information

VV8410000 LD50/LC50: CAS# 16893-85-9: Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, skin: 500 mg Mild; Oral, mouse: LD50 = 70 mg/kg; Oral, rabbit: LD50 = 125 mg/kg; Oral, rat: LD50 = 125 mg/kg. Carcinogenicity: Sodium silicofluoride - Not listed by ACGIH, IARC, or NTP. Other: See actual entry in RTECS for complete information.

12. Ecological Information

13. Disposal Considerations

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

14. Transport Information

IIATA Shipping Name: Zinc silicofluoride

Hazard Class: 6.1 UN Number: 2855 Packing Group: III

IMO Shipping Name: Zinc silicofluoride

Hazard Class: 6.1 UN Number: 2855 Packing Group: III

15. Regulatory Information

European/International Regulations European Labeling in Accordance with EC Directives

Hazard Symbols: T Risk Phrases: R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed. Safety Phrases: S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). WGK (Water Danger/Protection) CAS# 16893-85-9:

2 Canada CAS# 16893-85-9 is listed on Canada's DSL List. CAS# 16893-85-9 is not listed on Canada's Ingredient Disclosure List. US FEDERAL TSCA CAS# 16893-85-9 is listed on the TSCA inventory

inventory

inventory

16. Other Information Disclaimer:

***** **SUNIVO provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.** *****