



SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

GHS Product Identifier: Ruflux [®]S Sodium Titanate, Ruflux [®]S-FF Sodium Titanate, Sodium Silico Titanate, Sodium Titanate FR, Ruflux [®]S-FF (LH)

Chemical Name: Mixture (Sodium Titanate)

Recommended Applications: Used singularly or as a component in plastics, welding or friction industries.

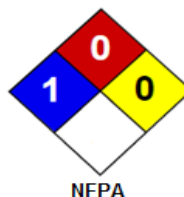
Other Names: Sodium metatitanate, Sodium Titanate, DiSodium Titanate, Sodium Titanate Oxide

Manufacturer Information: TAM Ceramics, LLC (#220821)
 4511 Hyde Park Blvd Niagara Falls, NY 14305
 Phone Number: 716-278-9400

Website: www.tamceramics.com

CHEMICAL EMERGENCY
 Spill, Leak, Fire, Exposure
 or Accident

CHEMTREC 24 HOUR EMERGENCY TELEPHONE
DOMESTIC NORTH AMERICA 800-424-9300
INTERNATIONAL CALL: 703-527-3887
Collect Calls Accepted



Health	1
Fire	0
Reactivity	0
Personal Protection	X

HMIS

SECTION 2. HAZARDS IDENTIFICATION

GHS Pictogram:



Signal word:

WARNING

GHS classification:

Eye irritation, Category 2
 Skin irritation, Category 2

Hazard Statement:

Prolonged skin contact may cause skin irritation or dermatitis.
 Overexposure by inhalation may cause respiratory irritation.

Precautionary Statement:

Wash hands thoroughly after handling. Minimize exposure by wearing protective gloves, clothing, eye protection and respiratory masks. Have a clean change of works clothes readily available. Avoid dust formation and utilize good housekeeping practices.

Route of Exposure:

Eyes, skin, inhalation and ingestion.

Potential Health Effects:

Eye: May cause a slight irritation.
 Skin: May cause a slight irritation.
 Inhalation: Prolonged inhalation may cause respiratory tract irritations.
 Ingestion: May irritate digestive tract if swallowed.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	EC Number	Weight %	OSHA	ACGIH
Sodium Titanate	12034-34-3	234-802-9	80-100%	Not established	Not established
Fume Silica	10193-36-9	273-761-1	0 - 20%	Not established	Not established

SECTION 4. FIRST AID MEASURES

Eye contact: Rinse eyes immediately with plenty of water on eye surfaces and under eyelids. Get medical attention if irritation develops.**Skin contact:** Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. If symptoms persist, call a physician.**Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms persist, call a physician.**Ingestion:** Drink plenty of water. Consult a physician if necessary. Do not induce vomiting without medical advice.**Notes to physician:** Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Flash point (°C): Not Applicable**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.**Hazardous decomposition products:** Thermal decomposition can lead to release of irritating gases and vapors.**Special protective equipment for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH (approved or equivalent) and full protective gear**Unusual hazards:** Dust may form explosive mixture in air.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid dust formation. Evacuate area of all unnecessary personnel. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Fine dust dispersed in air may ignite.**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Do not flush into surface water or sanitary sewer system.**Methods for cleaning up:** Use approved industrial vacuum cleaner for removal. Wear personal protective equipment. Dispose of promptly.

SECTION 7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Provide appropriate exhaust ventilation at places where dust is formed. Remove all sources of ignition. Wash hands thoroughly before eating, drinking or smoking.

Storage: Keep container tightly closed in a dry and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Ensure adequate ventilation, especially in confined areas.

Respiratory protection: Use NIOSH approved respirator when ventilation is inadequate.

Hand protection: Impervious gloves.

Skin and body protection: Lightweight protective clothing.

Eye protection: Safety glasses with side-shields.

Exposure limits: See Section 3.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Color: Yellow-Green

Odor: Odorless

Boiling point/range (°C): No data available

Melting point/range (°C): 1128

Vapor pressure (mmHg): No data available

Water solubility (mg/l): Insoluble

Physical state: Powder

Molecular weight: No data available

pH: No data available

Specific gravity (Water =1): 3.4 - 4.3

Evaporation rate (Water =1): No data available

VOC content (%): No data available

Odor threshold: No Data Available

Vapor pressure: No Data Available

Flash point: No Data Available

Flammability (solid, gas): No Data Available

Upper/lower flammability or explosive limits: No Data Available

Vapor density: No Data Available

Relative density: No Data Available

Partition coefficient: n-octanol/water: No Data Available

Auto-ignition temperature: No Data Available

Decomposition temperature: No Data Available

Viscosity: No Data Available

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable at normal conditions.

Polymerization: Will not occur.

Hazardous decomposition products: None under normal use.

Materials to avoid: None known.

Conditions to avoid: Avoid dust formation.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity: Acute and chronic toxicity of the substance is not fully known. Skin contact: May cause allergic skin reaction.

Chronic toxicity: Acute and chronic toxicity of the substance is not fully known.

Carcinogenic effects: Titanium Dioxide is listed by IARC as possibly carcinogenic to humans (Group 2B). This listing is based on inadequate evidence of carcinogenicity in humans and sufficient evidence in experimental animals.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic toxicity: No information available.

Persistence and degradability: No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Waste must be disposed of in accordance with federal, state and local environmental control regulations. Where possible recycling is preferred to disposal or incineration.

SECTION 14. TRANSPORT INFORMATION

DOT:

Proper shipping name: Not regulated

TDG (Canada)

Proper shipping name: Not regulated.

SECTION 15. REGULATORY INFORMATION

U.S.Regulations:

Not subject to the provisions of SARA 313 Title III

Not subject to TSCA 12(b) Export Notification

StateRegulations

This product or its ingredients have been evaluated for New Jersey, Pennsylvania, and California Prop 65 supplier notification requirements. Substances that are subject to notification requirements, if any, are listed below.

Titanium dioxide

NJRTK: sn 1861

PARTK: Listed (NJRTK)

Canadian WHMIS

WHMIS hazard class: D2A Very toxic materials.

International Inventories

TSCA 8(b): All the ingredients are on the TSCA list.

Canadian DSL: All the

EINECS: All the ingredients

Philippines (PICCS): Listed.

Japan (ENCS): Listed.

Japan (ENCS): Listed.

Korea (KECL): Listed.

China (IECS): Listed.

Australia (AICS): Listed.

For Industrial Use Only**National Fire Protection Association (U.S.A.):****Health: 1****Fire: 0****Physical Hazard: 0****PPE: X****Prepared by:** Product Manufacturer, TAM Ceramics Group of NY, LLC**Protective Equipment:** Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

The information and recommendations contained in this Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the SDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.

Last Updated: May 2015

End of Safety Data Sheet