SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

GHS Product Identifier: Rutilux® 61 Milled Rutile, Ceramic Rutile
Chemical Name: TiO2 - Rutile
Recommended Applications: Used singularly or as a component in plastics, ceramics, welding or friction industries.
Synonyms: Rutile, Rutile Titanium Dioxide

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

1-716-278-9401
Collect Calls Accepted

NFPA

HMIS

SECTION 2: HAZARDS IDENTIFICATION

GHS Pictogram:

Signal word: WARNING

GHS classification: Eye irritation, Category 2
Skin irritation, Category 2

Hazard Statement: Inert particles can be slightly, mechanically irritating to the eyes.
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 respiratroy tract irritations.
Ingestion: May irritate digestive tract if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No	EC Number	Weight %	OSHA	ACGIH
Rutile	1317-80-2	215-282-2	99 - 99%	15 mg/m³ TWA	10 mg/m³ TWA
Zircon	14940-68-2	239-075-6	1%		

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: Non combustible.

Suitable extinguishing media: The product itself does not burn. 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: None known.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid dust formation. Do not breathe vapors/dust. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
Methods for cleaning up: Wear personal protective equipment. Use approved industrial vacuum cleaner for removal. Dispose of promptly.

SECTION 7: HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Do not eat, drink, or smoke in areas of use or storage.

Storage: Keep in a dry, cool and well-ventilated place.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures: Provide appropriate exhaust ventilation at machinery and at places where dust or fumes can be generated.

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

Hand protection: Impervious gloves.

Skin and body protection: Lightweight protective clothing. Keep working clothes separately. Remove and wash contaminated clothing before re-use.

Eye protection: Safety glasses with side shields.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Color: Brown, reddish brown

Odor: Odorless

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

Melting point/range (°C): 1560 - 1840

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): 3.8 - 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: None known.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity: Information given is based on data on the components and the toxicology of similar products.

Chronic toxicity: In lifetime inhalation studies of rats, airborne respirable size titanium dioxide particles have been shown to cause lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. However, other laboratory animals such as mice and hamsters did not develop lung tumors under similar testing with titanium dioxide. Human epidemiology studies do not suggest an association between occupational exposure to titanium dioxide and risk for cancer.

Target Organ Effects: Titanium dioxide: Respiratory system.

Titanium Dioxide

OSHA - Select Carcinogens: Listed

IARC - Group 2B: Listed

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

State Regulations

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 ingredients are on the DSL.

EINECS: All the ingredients are on the EINECS list.

Philippines (PICCS): Listed.

Japan (ENCS): Listed.

Korea (KECL): Listed.

China (IECS): Listed.

Australia (AICS): Listed.

SECTION 16: OTHER INFORMATION

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: March 2020

End of Safety Data Sheet

TAM CERAMICS, LLC
4511 Hyde Park Blvd.
Niagara Falls, NY 14305

ANALYSIS TO:

BRACKER'S GOOD EARTH CLAYS, INC.
1831 E. 1450 ROAD
LAWRENCE, KS 66044

MATERIAL DESCRIPTION:	Ceramic Rutile	LOT NO.	314026
CUSTOMER PO NO:	17139	PRODUCT NO.:	1014084
DATE OF SHIPMENT:	09/30/25	QUANTITY SHIPPED:	1,000 LBS

CERTIFICATE OF ANALYSIS/CERTIFICATE OF COMPARISON

This material has been analyzed in our Laboratory and the results are reported in this Certificate.

PROPERTIES	TAM SPECIFICATIONS 51429 PS136 1	ACTUAL RESULTS
CHEMICAL PROPERTIES		
TiO2, %	94.0 minimum	95.2
ZrO2, %	1.5 maximum	1.1
SiO2, %	1.5 maximum	0.3
Fe2O3, %	1.6 maximum	0.9
Cr2O3, %	0.5 maximum	0.2
V2O5, %	1.0 maximum	0.4
Al2O3, %	1.0 maximum	0.5
P, %	0.04 maximum	0.02
S, %	0.04 maximum	0.01
PHYSICAL PROPERTIES		
+325 Mesh, %	0.5 maximum	0.1
Magnetics, %	0.005	0.001
Fisher Number, uM	Report	2.6

TAM CERAMICS, LLC

Quality Department
(716) 278-9428

SPECIAL INSTRUCTIONS