

MATERIAL SAFETY DATA SHEET

HMIS INFORMATION:

HEALTH: 1
FLAMMABILITY: 1
PHYSICAL HAZARD: 0

Section 1. PRODUCT IDENTIFICATION

PRODUCT NAME: **8086 Rutile Titanium Dioxide**
VERSION DATE: 07/02/2004
CAS NUMBER: 13463-67-7
C.I. Pigment : White

Section 2. COMPOSITION

Ingredient	CAS No	Percent	Hazardous
Titanium Dioxide	13463-67-7	>92	No
Amorphous Silica	7631-86-9	<5.0	Yes
Aluminum Hydroxide	21645-51-2	<5.0	No

Section 3. HAZARDS IDENTIFICATION

Emergency Overview - NA

Contact Rating: 2 - Moderate
Lab Protective Equip: Safety glasses

Potential Health Effects

Inhalation:

Remove to fresh air immediately. Call physician.

Ingestion:

No significant effects.

Skin Contact:

May causes skin irritation if in contact for extended periods of time.

Eye Contact:

The more common hazards are local irritation or abrasion. In severe cases absorption can occur through eye tissues and may cause corneal injury or blindness.

Chronic Exposure:

None known

Aggravation of Pre-existing Conditions:

None known

Section 4. FIRST AID MEASURES

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact:

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing and thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Section 5. FIRE FIGHTING MEASURES

Fire:

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard. Sealed containers may rupture when heated.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire. Do not allow water runoff to enter sewers or waterways. Carbon dioxide, water spray or foam are all suitable.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Section 6. ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Wear appropriate PPE as specified in Section 8.

Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal

Section 7. HANDLING AND STORAGE

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Wear special protective equipment (Sec. 8) for maintenance break-in or where exposures may exceed established exposure levels. Wash hands, face, forearms and neck when exiting restricted areas. Shower and change to clean garments at the end of the day. Avoid cross-contamination of street clothes. Wash hands before eating and do not eat, drink, or smoke in workplace. Observe all warnings and precautions listed for the product.

Section 8. EXPOSURE CONTROLS

For Nuisance dust:

- OSHA Threshold Limit Value (TLV):

15 mg/m³ TWA Total Dust
5 mg/m³ Respirable Dust

For Amorphous Silica:

- **OSHA Threshold Limit Value (TLV):** 6 mg/m³ TWA

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded, a half-face high efficiency dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece high efficiency dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. For further information, see OSHA 29 CFR 1910.1025.

Eye Protection:

Use chemical safety goggles and/or full-face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Other Control Measures:

Eating, drinking, and smoking should not be permitted in areas where solids or liquids containing lead compounds are handled, processed, or stored. See OSHA substance-specific standard for more

information on personal protective equipment, engineering and work practice controls, medical surveillance, record keeping, and reporting requirements. (29 CFR 1910.1025).

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White powder
Odor: Odorless
Solubility: Insoluble
Specific Gravity: 4.25
pH: 6.5 – 8.0
% Volatiles by volume @ 21C (70F): 0
Boiling Point: No information found.
Melting Point: 3371°F
Vapor Density (Air=1): No information found.
Vapor Pressure (mm Hg): No information found.
Evaporation Rate (BuAc=1): No information found.

Section 10. STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products: None
Hazardous Polymerization: Will not occur.
Incompatibilities: Strong reducing agents, combustibles, and organic materials.
Conditions to Avoid: Incompatibles.

Section 11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Reproductive Toxicity:

Cancer Lists

Ingredient	NTP Carcinogen		
	Known	Anticipated	IARC Category
Amorphous silica	No	No	3

There is inadequate evidence in humans for the carcinogenicity of amorphous silica and inadequate evidence in experimental animals for the carcinogenicity of synthetic amorphous silica. Hence, amorphous silica is not classifiable as to its carcinogenicity to humans (Group 3).

Section 12. ECOLOGICAL INFORMATION

Environmental Fate:

When released into the soil, this material may leach into groundwater. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.

Environmental Toxicity: No information found.

Section 13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility.

Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14. TRANSPORTATION INFORMATION

Domestic (Land, D.O.T.)

Proper Shipping Name: not regulated
 Hazard Class:
 UN/NA:
 Packing Group:
 Information reported for product/size:

International (Water, I.M.O.)

Proper Shipping Name: not regulated
 Hazard Class:
 UN/NA:
 Packing Group:
 Information reported for product/size:

International (Air, I.C.A.O.)

Proper Shipping Name: not regulated
 Hazard Class:
 UN/NA:
 Packing Group:
 Information reported for product/size:

Section 15. REGULATORY INFORMATION

Chemical Inventory Status

Ingredient	TSCA	EC	Japan	Australia	Korea	Canada		Phil.
						DSL	NDSL	
Titanium Dioxide	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

Federal, State & International Regulations

Ingredient	SARA 302		SARA 313		CERCLA	RCRA 261.3 3	TSCA 8(d)
	RQ	TPQ	List	Chemical Category			
Titanium Dioxide	No	No	No	No	No	No	No

Chemical Weapons Convention: No
TSCA 12(b): No
CDTA: No
SARA 311/312:
Acute: Yes
Chronic: No
Fire: No
Pressure: No
Reactivity: No

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Section 16. OTHER

NFPA Ratings:

Health: 1
Flammability: 0
Reactivity: 0

DISCLAIMER OF LIABILITY

We provide 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.
