



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Titanium Dioxide Dry Pigment
Product Description: Pigment, colorant
Intended Use: Fine art painting and decorative coatings

COMPANY

Company Name: Gamblin Artists Colors
Company Address: 2734 SE Raymond St.
Portland, OR 97202
USA
Company Phone: 503-235-1945
Emergency Phone: Local Emergency Room

SECTION 2: HAZARDS IDENTIFICATION

Physical hazards: Not classified
Health hazards: Not classified
Environmental hazards: Not classified
OSHA defined hazards: Not classified
Label elements: Not assigned
Hazard symbol: None
Signal word: Not assigned
Hazard statement: Not assigned
Precautionary statement
Prevention: Not assigned
Response: Not assigned
Storage: Not assigned
Disposal: Not assigned

Hazard(s) not otherwise classified (HNOC):

Contact with dust can cause mechanical irritation or drying of the skin. Dust contact with the eyes can lead to mechanical irritation. May cause nose, throat, and lung irritation.

Supplemental information Substance(s) formed under the condition of use:

NA

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Concentration (%)
Titanium Dioxide	13463-67-7	80-98
Aluminum hydroxide	21645-51-2	0-9
Silicon dioxide, amorphous	7631-86-9	0-11

SECTION 4: FIRST AID MEASURES

General advice: No hazards which require special first aid measures.
Eyes: Wash with clean water.
Skin: Wash with soap and water.
Inhalation: Remove to fresh air. Call a physician if symptoms develop or persist.
Ingestion: No specific intervention is indicated. Consult a physician if necessary.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

No special protective equipment required.
No specific intervention is indicated.

SECTION 5: FIRE FIGHTING MEASURES

FIRE FIGHTING

Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire.
Unsuitable Extinguishing Media:
None known.
Special Fire Fighting Procedures:
Use protective equipment appropriate for surrounding materials.
Not a fire hazard.
This product is not flammable.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate personal protective equipment. Avoid inhalation of dust from the spilled material.
Environmental Precautions:
Prevent contamination of soil, drains, and surface waters.
Methods for clean up: Avoid dust formation. Following product recovery, flush area with water.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling:

Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Keep formation of airborne dusts to a minimum.

Cautions for Safe Storage:

Store in closed original container in a dry place. Room temperature-normal conditions. Do not allow product to become wet during storage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

Titanium dioxide:

Permissible exposure limit	OSHA	15mg/m ³	8 hr. TWA	Total dust
TLV	ACGIH	10mg/m ³	TWA	
AEL*	Supplier	10mg/m ³	8 & 12 hr. TWA	Total dust
AEL*	Supplier	5mg/m ³	8 & 12 hr. TWA	Respirable dust

*AEL is Gamblin's supplier's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PERSONAL PROTECTION

Respiratory Protection: Wear appropriate certified respirators if facing concentrations above the exposure

limit.

Skin Protection: For additional protection, wear gloves.

No personal body protection normally required.

Eye Protection: Safety glasses with side-shields

ENGINEERING CONTROLS

Ventilation: Use sufficient ventilation to keep below recommended exposure limits.

Hygiene: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking .

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

GENERAL INFORMATION

Physical State: Powder

Color: White

Odor: None

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Boiling Point:	3,000°C (5,432°F)
Melting Point:	1,843°C (3,349°F)
Freezing Point:	N/A
Vapor Pressure:	N/A
Vapor Density:	N/A
Relative Density:	3.4-4.3
Evaporation Rate:	N/A
Solubility in Water:	Insoluble
Solids by Weight:	N/D
Volatile:	N/A
Molecular Weight:	N/A
Viscosity:	N/A
Flash point:	Does not flash
Decomposition Temp:	N/A
pH:	N/D

SECTION 10: STABILITY AND REACTIVITY

GENERAL INFORMATION

Stability:	Material is stable under normal conditions
Conditions to Avoid:	None known
Materials to Avoid:	No additional information
Hazardous Decomposition or Bi-Products:	No hazardous decomposition products are known.
Possibility of Hazardous Reactions:	None reasonably foreseeable.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL EFFECTS

Skin	Slight or no irritation
Eye	Slight or no irritation
Sensitization	No sensitizing effects known
Inhalation 4 h LC	>6.82 mg/l, rat
Dermal LD50	>10,000 mg/kg, rabbit
Oral LD50	>5,000 mg/kg, rat

OTHER INFORMATION

Repeated dose toxicity: No toxicologically significant effects were found.

Carcinogenicity: Based upon all available study results, Gamblin Artists Colors supplier's scientists conclude that titanium dioxide will not cause lung cancer or chronic respiratory diseases in humans at concentrations experienced in the workplace.

The Carcinogenicity classifications for this product and/or its ingredients have been determined according the HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

Material	IARC	NTP	OSHA
Titanium dioxide	2B		

Mutagenicity: Did not cause genetic damage in animals.

Reproductive toxicity: Animal testing showed no reproductive toxicity.

Teratogenicity: Animal testing showed no developmental toxicity.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION

Aquatic Toxicity:	96 h LC50	Pimephales promelas (fathead minnow) > 1,000 mg/l
	72 h EC50	Pseudokirchneriella subcapitata (green algae) > 100 mg/l
	48 h EC50	Daphnia magna (water flea) > 1,000 mg/l
Mobility:	No information available	

PERSISTENCE AND MOBILITY

Biodegradation: Not expected to be biodegradable

Bioaccumulative potential:
Does not bioaccumulate

SECTION 13: DISPOSAL CONSIDERATIONS

NOTE: Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at the time of disposal.

Waste Disposal: Dispose of in accordance with national, state, and local regulations.

Empty Container: Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations.

SECTION 14: TRANSPORT INFORMATION

LAND (DOT): Not regulated
SEA (IMDG): Not regulated
AIR (IATA): Not regulated

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS TSCA (TOXIC SUBSTANCE CONTROL ACT):

On the inventory, or in compliance with the inventory

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

SARA 313 (TRI reporting) - This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

STATE REGULATIONS:

New Jersey Worker and Community Right-to-Know Act:

Substances on the New Jersey Workplace Hazardous Substances List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Titanium dioxide, Silicon dioxide, amorphous

Pennsylvania RTK - Hazardous Substances:

Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Titanium dioxide, Silicon dioxide, amorphous

California Proposition 65:

WARNING! This product contains a chemical known to the State of California to cause cancer. The listing of titanium dioxide is for "airborne, unbound particles of respirable size." The listing is not applicable to titanium dioxide when it remains bound within a product matrix.

INTERNATIONAL REGULATIONS:

<u>Country(s) or Region</u>	<u>Inventory Name</u>	<u>On Inventory (yes/no)*</u>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substance List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINCES)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
New Zealand	New Zealand Inventory	Exempt
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Updates made in accordance with implementation of GHS requirements.

The information and recommendations contained herein are, to the best of Gamblin's knowledge and belief, accurate and reliable, but it is not warranted to be. You can contact Gamblin to ensure that this document is the most current available. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use and it is the user's responsibility to carefully read the product label and follow instructions for safe use of the product.