

**GELEST, INC.**

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MATERIAL SAFETY  
DATA SHEET

EMERGENCY TELEPHONE  
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **TITANIUM BORIDE, powder - INTI027**  
CHEMICAL NAME: TITANIUM BORIDE  
SYNONYMS: TITANIUM BORIDE  
CHEMICAL FAMILY: INORGANIC TITANIUM COMPOUND  
FORMULA: B<sub>2</sub>Ti

HMIS CODES HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0

**INGREDIENTS**

IDENTITY	CAS NO.	%	TLV	OSHA PEL
TITANIUM BORIDE	12045-63-5	>97	not established	(OSHA PEL, total dust: 10mg/m <sup>3</sup> )

**PHYSICAL DATA**

Boiling Point: NA  
Specific Gravity: 452  
Vapor Density (air = 1): NA  
% volatiles: 100  
Molecular Weight: 69.52  
Appearance & Color: Gray powder

Melting Point: 2850-2900°C  
Vapor Pressure, 20°: <0.01mm  
Solubility in water: insoluble  
Evaporation rate: NA  
Other: NA

**FIRE & EXPLOSION DATA**

Flash Point, COC: none Autoignition Temp.: not applicable  
Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: Not combustible.  
Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe particulates.  
Unusual Fire and Explosion Hazards: None

## ENVIRONMENTAL INFORMATION

Spill response: Sweep material, avoiding inhalation of particulates.

Recommended Disposal: Landfill. Follow all chemical pollution control regulations.

## HEALTH HAZARD DATA

Eye Contact: Particulates may cause immediate or delayed eye irritation.

Skin contact: May produce irritation. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of particulates may irritate the respiratory tract. Overexposure may produce coughing, headache and nausea.

Oral Toxicity: not determined

Chronic Toxicity: There are no known chronic effects related to this compound.

### SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

SKIN: Flush with water, then wash with soap and water.

INHALATION: Move exposed individual to fresh air. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

## REACTIVITY DATA

Stability: Stable.

Conditions to avoid: None determined

Incompatibility (materials to avoid): None determined

Hazardous decomposition products: None known

## SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV for particulates, a dust mask is required.

Eye and Face Protection: Safety glasses.

Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

## OTHER PRECAUTIONS

For research and industrial use only.

Storage and Handling: Store in sealed containers. While not flammable, the ability of particles to generate static charge may present a hazard when used in combination with flammable liquids.

## TRANSPORTATION

DOT SHIPPING NAME: NOT REGULATED

DOT HAZARD CLASS: NOT REGULATED

DOT LABELS: NOT REQUIRED

DOT ID No: NOT REQUIRED

Prepared by safety and environmental affairs

ISSUE DATE INTI027: 5/9/06

SUPERSEDES: none

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