

**GELEST, INC.**

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MATERIAL SAFETY  
DATA SHEET

EMERGENCY TELEPHONE  
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **GERMANIUM NITRIDE - GEG5420**  
CHEMICAL NAME: GERMANIUM NITRIDE  
SYNONYMS: GERMANIUM IV NITRIDE  
CHEMICAL FAMILY: METAL NITRIDE  
FORMULA:  $Ge_3N_4$

HMIS CODES HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0

**INGREDIENTS**

IDENTITY	CAS NO.	%	TLV
GERMANIUM NITRIDE	12065-36-0	>98	not established (OSHA PEL, nuisance dust: 15mg/m <sup>3</sup> )

**PHYSICAL DATA**

Boiling Point: N/A  
Specific Gravity: 5.35  
Vapor Density: NA  
% volatiles: 0  
Molecular Weight: 273.80  
Appearance & Color: White powder

Melting Point: >500°C-dec  
Vapor Pressure: not determined  
Solubility in water: insoluble  
Evaporation rate: NA  
Other: NA

**FIRE & EXPLOSION DATA**

Flash Point, COC: Not Flammable Autoignition Temp.: not ignitable  
Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: NA

Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

Unusual Fire and Explosion Hazards: Irritating fumes vapors may develop when material is mixed with other materials and exposed to elevated temperatures or open flame.

## ENVIRONMENTAL INFORMATION

Spill response: May be hazardous to aquatic life if released to open waters. Sweep material while wearing a dust mask. Transfer to a suitable container for disposal.

Recommended Disposal: Dispose of as solid waste. Follow all chemical pollution control regulations. Large quantities may be recycled by return to the Gelest, the manufacturer.

## HEALTH HAZARD DATA

Eye Contact: May cause irritation or conjunctivitis by dissolving to form germanic acid, a weak acid.

Skin contact: Reported to be non-irritating.

Inhalation: Inhalation of particulates of will irritate the respiratory tract. Overexposure may produce coughing, headache and nausea. Inhalation of large amounts is expected to cause necrosis of tracheal epithelium, bronchitis and interstitial pneumonia.

Oral Toxicity: not determined  
Acute Toxicity: not determined  
Chronic Toxicity: not determined  
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

Incompatibility (materials to avoid): Compatible with most materials Dissolves in strong acid or base.

Hazardous decomposition products: Acid Vapors.

-2-(GEG5420)

## SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV dust mask or air-supplied .

Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses.

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.

## TRANSPORTATION

DOT SHIPPING NAME: CHEMICALS, NOI

DOT HAZARD CLASS: Not Regulated

DOT LABEL: Not Required

DOT ID No: Not Required

Prepared by safety and environmental affairs      ISSUE DATE GEG5420: 4/30/03  
SUPERSEDES: 7/17/01

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