

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **TANTALUM V ISOPROPOXIDE - AKT813**

CHEMICAL NAME: TANTALUM V ISOPROPOXIDE

SYNONYMS: PENTAIISOPROPOXYTANTALUM

CHEMICAL FAMILY: TANTALUM COMPOUND

FORMULA: C₁₅H₃₅O₅Ta

HMIS CODES HEALTH: 3 FLAMMABILITY: 3 REACTIVITY: 1

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
TANTALUM ISOPROPOXIDE	16761-83-4	>95	not established (tantalum= 5mg/m ³)	

PHYSICAL DATA

Boiling Point: 122°C at 0.1mm

Specific Gravity: 1.31`

Vapor Density (air = 1): >1

% volatiles: >50%

Molecular Weight: 476.39

Appearance & Color: Pale yellow solid, mild odor

Melting Point: 90-92°C

Vapor Pressure, 20°C: 8 mm

Solubility in water: reacts

Evaporation rate: NA

Other: NA

FIRE & EXPLOSION DATA

Flash Point, COC: >65°C (>150°F)

Autoignition Temp.: not determined

Flammability Limits: not determined

Extinguishing Media: Water spray or alcohol resistant foam, carbon dioxide, dry chemical.

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

Unusual Fire and Explosion Hazards: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

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ENVIRONMENTAL INFORMATION

Spill response: Sweep material and transfer to a suitable container for disposal.

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

HEALTH HAZARD DATA

Eye Contact: Will cause immediate or delayed severe eye irritation.

Skin contact: May produce irritation or contact dermatitis. Material generates isopropanol on contact with water or moisture in skin, eyes and mucous membranes and has an irritating, dehydrating effect on overexposed tissue. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation may irritate the respiratory tract. Overexposure can cause lung damage - pulmonary toxin.

Note: The hydrolysis products of tantalum isopropoxide are tantalum oxide and isopropanol. Tantalum oxide is reported to be moderately toxic (TOXICITY - oral rat, LD50: 8000mg/kg).

Oral Toxicity: not determined

Inhalation 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. Administer oxygen if needed. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. To conscious individual give one full cup of water to dilute ingested material. Get medical attention.

REACTIVITY DATA

Stability: Stable

Conditions to avoid: Material decomposes slowly in contact with moist air or with water liberating ethanol. Avoid contact with oxidizing agents.

Hazardous decomposition products: Isopropanol, organic vapors, tantalum oxide.

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SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV, NIOSH approved organic vapor respirator.

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 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 AKT813: 8/8/05
SUPERSEDES: none

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