

**GELEST, INC.**

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MATERIAL SAFETY  
DATA SHEET

EMERGENCY TELEPHONE  
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **TANTALUM SODIUM METHOXIDE - AKT816**

CHEMICAL NAME: TANTALUM SODIUM METHOXIDE

SYNONYMS: TANTALUM SODIUM METHYLATE

CHEMICAL FAMILY: TANTALUM COMPOUND

FORMULA: C<sub>6</sub>H<sub>18</sub>O<sub>6</sub>NaTa

HMIS CODES HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 1

**INGREDIENTS**

IDENTITY	CAS NO.	%	TLV	OSHA PEL
TANTALUM SODIUM METHOXIDE (liberates methanol in contact with air- methanol TLV(TWA) = 200ppm)	not found	>95		not established Tantalum= 5mg/m <sup>3</sup>

**PHYSICAL DATA**

Boiling Point: >320°C@0.1mm

Specific Gravity: >1

Vapor Density (air =1): >1

% volatiles: NA

Molecular Weight: 390.14

Appearance & Color: White solid, characteristic odor of methanol

Melting Point: not determined

Vapor Pressure: not determined

Solubility in water: reacts

Evaporation rate: NA

Other: NA

**FIRE & EXPLOSION DATA**

Flash Point, COC: >100°C (>212°F) Autoignition Temp.:not determined

Flammability Limits- NA

Extinguishing Media: Water spray or fog, 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 methanol 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 methoxide are tantalum oxide and methanol. Tantalum oxide is reported to be moderately toxic (TOXICITY - oral rat, LD50: 8000mg/kg). Overexposure to methanol by skin absorption, inhalation or ingestion may effect vision (pain, dilated, unresponsive pupils, loss of visual acuity) or cause other symptoms including eczematoid dermatitis, conjunctivitis, headache, nausea, respiratory failure and cardiac depression.

Oral Toxicity: oral-rat, LD50: not determined

Inhalation Toxicity: ihl-rat, LDLo: 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 methanol; TLV(TWA) = 200ppm. Avoid contact with oxidizing agents.

Hazardous decomposition products: Methanol, organic vapors, tantalum oxides.

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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: NONE REQUIRED

DOT HAZARD CLASS: NONE REQUIRED

DOT LABEL: NONE REQUIRED

DOT ID No: NONE REQUIRED

Prepared by safety and environmental affairs

ISSUE DATE AKT816: 7/25/05

SUPERSEDES: none

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