

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **BORON ISOPROPOXIDE - AKB156.5**
 CHEMICAL NAME: BORON ISOPROPOXIDE
 SYNONYMS: TRIISOPROPYL BORATE; TRIISOPROPOXYBORANE; BORIC ACID,
 TRIISOPROPYL ESTER
 CHEMICAL FAMILY: BORATE ESTER
 FORMULA: C₉H₂₁O₃B
 HMIS CODES HEALTH: 2 FLAMMABILITY: 4 REACTIVITY: 1

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
BORON ISOPROPOXIDE	5419-55-6	>95	ACGIH: 100ppm	not established
ISOPROPANOL	67-63-0	<5%	400ppm	TWA: 400ppm

PHYSICAL DATA

Boiling Point: 139-141°C	Melting Point: <0°C
Specific Gravity: 0.815	Vapor Pressure, 75°C: 76mm
Vapor Density (air =1): >1	Solubility in water: reacts
% volatiles >90%	Evaporation rate: NA
Molecular Weight: 188.08	Other: N/A
Appearance & Color: Water white liquid; slight odor	

FIRE & EXPLOSION DATA

Flash Point, COC: 28°C (82°F) Autoignition Temp.: not determined
 Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: Alcohol resistant foam, carbon dioxide, dry chemical.

Special Fire Fighting Procedures: Avoid water spray as isopropanol will be generated. 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.

-1-(AKB156.5)

ENVIRONMENTAL INFORMATION

Spill response: Utilize non-flammable absorbent, then sweep material and transfer to a suitable container for disposal.

Recommended Disposal: In a well ventilated area slurry the product with water and laundry detergent. After absorption onto non-flammable absorbent, dispose of as solid waste. 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. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of dust or particulates may irritate the respiratory tract.

Oral Toxicity - mouse, LD50: 2500mg/kg
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. Administer oxygen if needed. Call a physician.

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

Note to physician: Boron isopropoxide hydrolyzes to form isopropanol and boric acid. Treatment for exposure to isopropanol may be considered. At very high levels borates affect the CNS.

REACTIVITY DATA

Stability: Stable

Conditions to avoid: Material decomposes slowly in contact with air by reaction with moisture, liberating isopropanol and boric acid. Avoid contact with water.

Hazardous decomposition products: Organic acid vapors and boron oxide fumes.

-2-(AKB156.5)

SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV, NIOSH approved dust and mist 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 and industrial use only.

Storage and Handling: Store in sealed containers.

TRANSPORTATION

DOT SHIPPING NAME: TRIISOPROPYL BORATE

DOT HAZARD CLASS: 3

DOT LABEL: FLAMMABLE LIQUID

DOT ID No: UN 2616

PG: III

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