GELEST, INC. 11 East Steel Rd. Morrisville, PA 19067 Phone: (215) 547-1015

MATERIAL SAFETY DATA SHEET EMERGENCY TELEPHONE CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: INDIUM COPPER BIS(ETHYLTHIOLATE)-**TRIPHENYLPHOSPHINE COMPLEX - AKI362.2** CHEMICAL NAME: INDIUM COPPER BIS(ETHYLTHIOLATE)-TRIPHENYLPHOSPHINE COMPLEX CHEMICAL FAMILY: INDIUM COMPOUND FORMULA: C44H50P2S4Culn HMIS CODES HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 1 INGREDIENTS IDENTITY % CAS NO. TLV INDIUM COPPER BIS(ETHYLTHIOLATE) TRIPHENYLPHOSPHINE COMPLEX 146688-53-1 >95 not established **PHYSICAL DATA**

Boiling Point: NAMelting Point: 105-122°CSpecific Gravity: > 1Vapor Pressure: not determinedVapor Density: NASolubility in water: reacts% volatiles<3%</td>Evaporation rate: NAMolecular Weight: 947.43Other: NAAppearance & Color: Off-white solid; disagreeable odor

FIRE & EXPLOSION DATA

Flash Point, TCC: >65°C (>150°F) Autoignition Temp.: not determined Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: Water spray, 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. -1-(AKI362.2)

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose, LC: Lethal Concentration; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; HMIS: Hazardous Material information System; CAS No.: Chemcial Abstract Service Registration Number Gelest, Inc. © 2008

ENVIRONMENTAL INFORMATION

Spill response: Cover spill with absorbent material. Transfer to a suitable container for disposal.

Recommended Disposal: Dispose of absorbent material as solid waste. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: May cause immediate or delayed severe eye irritation. The onset of irritation may not occur until several hours after exposure.

Skin contact: May produce irritation or contact dermatitis which may be delayed several hours. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of vapors or particulates of metal alkoxides may irritate the respiratory tract.

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: Avoid water, moist air. Incompatibility (materials to avoid): Oxidizers. Hazardous decomposition products: Organic acid vapors, indium oxide fumes.

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SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended. Respiratory Protection:

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 AKI362.2: 10/12/09 SUPERSEDES:

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