

# SAFETY DATA SHEET

Date Issued : 6/14/2012  
MSDS No : M-3000-169

**KJL169**

## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** KJL169

**GENERAL USE:** Physical vapor deposition of thin films

### MANUFACTURER

Kurt J Lesker Company

United States

1925 Route 51

Jefferson Hills, PA 15025

**Customer Service:** 412-387-9200

**E-Mail:** msds@lesker.com

Kurt J Lesker Company LTD

United Kingdom

15-16 Burgess Road

Hastings, East Sussex, TN35 4NR

England

**Customer Service:** +44 (0) 1424 458100

### 24 HR. EMERGENCY TELEPHONE NUMBERS

24-Hour Emergency Response provided by  
3E Global Incident Response Hotline

When calling, refer to Kurt J Lesker Company  
Global Response Access Code: 333594

North America [USA, Canada, Mexico]: 1-866-519-4752

Mainland China: (+86) 4001 2001 74

Europe: {int'l call prefix}-1-760-476-3961

Asia Pacific: {int'l call prefix}-1-760-476-3960

Middle East & Africa: {int'l call prefix}-1-760-476-3959

## 2. HAZARDS IDENTIFICATION

### GHS CLASSIFICATIONS

#### Health:

Acute Toxicity (Inhalation), Category 3

Acute Toxicity (Oral), Category 3

Target Organ Toxicity (Repeated exposure), Category 2

### GHS LABEL



Skull and  
crossbones



Health  
hazard

### HAZARD STATEMENTS

H331: Toxic if inhaled.

H301: Toxic if swallowed.

H373: May cause damage to organs through prolonged or repeated exposure .

### PRECAUTIONARY STATEMENT(S)

#### Prevention:

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P264: Wash ... thoroughly after handling.

#### Response:

P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P301+A1600: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

**Storage:**

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

**EMERGENCY OVERVIEW**

**IMMEDIATE CONCERNS:** Negligible fire or explosion hazard in bulk form. Powdered material may form explosive dust-air mixtures.

**POTENTIAL HEALTH EFFECTS**

**EYES:** Contact may cause eye irritation.

**SKIN:** May cause skin irritation.

**INGESTION:** Toxic if swallowed.

**INHALATION:** Toxic if inhaled. Causes respiratory tract irritation.

**REPRODUCTIVE TOXICITY**

**REPRODUCTIVE EFFECTS:** Not Available

**TERATOGENIC EFFECTS:** Not Available

**CARCINOGENICITY:** Not listed as a human carcinogen

**MUTAGENICITY:** Not Available

**ROUTES OF ENTRY:** Ingestion, Inhalation

**TARGET ORGAN STATEMENT:** Lungs

**IRRITANCY:** Dust or vapor irritating to eyes and respiratory tract.

**PHYSICAL HAZARDS:** This substance is not considered hazardous in the form supplied. Dusts at sufficient concentrations can form explosive mixtures with air.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

| Chemical Name | Wt. %   | CAS        |
|---------------|---------|------------|
| Antimony      | 0 - 100 | 7440-36-0  |
| Tellurium     | 0 - 100 | 13494-80-9 |

**4. FIRST AID MEASURES**

**EYES:** Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

**SKIN:** Wash with soap and water. Get medical attention if irritation develops or persists.

**INGESTION:** Rinse mouth. Get medical advice/attention.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

**SKIN:** Antimony spots are a rash consisting of papules and pustules around sweat and sebaceous glands. It resembles the pustules of chicken pox.

**INGESTION:** Those overexposed exhibit a garlic odor of the breath, sweat, and urine

**INHALATION:** Those overexposed exhibit a garlic odor of the breath, sweat, and urine

**CHRONIC EFFECTS:** Not Available

## 5. FIRE FIGHTING MEASURES

**FLAMMABLE CLASS:** Noncombustible except as a powder.

**EXTINGUISHING MEDIA:** Use a Class D dry powder extinguisher, dolomite, dry sand, graphite, or soda ash.

**EXPLOSION HAZARDS:** Dusts at sufficient concentrations can form explosive mixtures with air.

**FIRE FIGHTING PROCEDURES:** As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Toxic metal fumes, Tellurium oxides.

## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Clean up spills immediately, observing precautions in Protective Equipment section.

**LARGE SPILL:** Collect spilled material in appropriate container. Spill may be reportable . Consult section 15 for Reportable Quantities.

### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL:** This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

**GENERAL PROCEDURES:** Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Eliminate all ignition sources if safe to do so. Avoid formation of dust. Provide appropriate exhaust ventilation where dust is formed. Avoid breathing (dust, vapor, mist, gas). Practice good chemical hygiene during and after use. Avoid release to the environment.

## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** To avoid risks to human health and the environment, comply with the instructions for use.

**HANDLING:** Keep away from heat and flame. Keep container closed when not in use. Remove contaminated clothing and wash before reuse. Wash hands before eating and wash before reuse. Wash thoroughly after handling.

**STORAGE:** Keep container closed when not in use. Store in a cool dry place.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Wear safety glasses with side shields (or goggles) and a face shield.

**SKIN:** Wear protective gloves/protective clothing/eye protection/face protection. Wash contaminated clothing before reuse.

**RESPIRATORY:** If ventilation is inadequate and this material is handled at elevated temperatures or dusts/fumes/mists are generated a NIOSH/MSHA approved air purifying respirator with a manufacturers approved cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

**WORK HYGIENIC PRACTICES:** Practice good chemical hygiene during and after use.

**COMMENTS:**

COMPONENT EXPOSURE LIMITS

| Component | Location, Type               | Value (mg/m3) |
|-----------|------------------------------|---------------|
| Tellurium | ACGIH TLV TWA                | 0.1           |
|           | OSHA OEL TWA                 | 0.1           |
|           | NIOSH REL TWA                | 0.1           |
|           | Canada - AB, BC, ON, PQ TWA  | 0.1           |
|           | Europe TWA                   | 0.1           |
|           | Denmark, Switzerland STEL    | 0.2           |
|           | Poland TWA                   | 0.01          |
|           | Poland STEL                  | 0.02          |
|           | Australia, NZ, Singapore TWA | 0.1           |
|           | UK WEL TWA                   | 0.1           |

| Component | Location, Type               | Value (mg/m3) |
|-----------|------------------------------|---------------|
| Antimony  | ACGIH TLV TWA                | 0.5           |
|           | OSHA OEL TWA                 | 0.5           |
|           | NIOSH REL TWA                | 0.5           |
|           | Canada - AB, BC, ON, PQ TWA  | 0.5           |
|           | Europe TWA                   | 0.5           |
|           | Denmark STEL                 | 1.0           |
|           | Hungary STEL                 | 2.0           |
|           | Australia, NZ, Singapore TWA | 0.5           |
|           | UK WEL TWA                   | 0.5           |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Solid

**ODOR:** None

**COLOR:** Not Available

**pH:** NA = Not Applicable

**PERCENT VOLATILE:** NA = Not Applicable

**FLASH POINT AND METHOD:** NA = Not Applicable

**FLAMMABLE LIMITS:** NA = Not Applicable

**AUTOIGNITION TEMPERATURE:** NA = Not Applicable

**VAPOR PRESSURE:** NA = Not Applicable

**VAPOR DENSITY:** NA = Not Applicable

**BOILING POINT:** Not Available

**MELTING POINT:** Not Available

**SOLUBILITY IN WATER:** Insoluble

**DENSITY:** Not Available

## 10. STABILITY AND REACTIVITY

**STABLE:** Yes

**HAZARDOUS POLYMERIZATION:** No

**HAZARDOUS DECOMPOSITION PRODUCTS:** Toxic metal fumes, Tellurium oxides.

**INCOMPATIBLE MATERIALS:** Strong acids, Strong bases, Oxidizing materials, Halogens.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE

**DERMAL LD<sub>50</sub>:** Not Available

**SKIN ABSORPTION:** Not Available

**ORAL LD<sub>50</sub>:** Not Available

**INHALATION LC<sub>50</sub>:** Not Available

### CARCINOGENICITY

**IARC:** Not listed

**NTP:** Not listed

**OSHA:** Not listed

**REPRODUCTIVE EFFECTS:** Not Available

**TERATOGENIC EFFECTS:** Not Available

**MUTAGENICITY:** Not Available

## 12. ECOLOGICAL INFORMATION

**BIOACCUMULATION/ACCUMULATION:** Not Available

**AQUATIC TOXICITY (ACUTE):** Not Available

**CHEMICAL FATE INFORMATION:** Not Available

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** Dispose of according to applicable federal, state, provincial, and local regulations.

**PRODUCT DISPOSAL:** Contact a licensed waste disposal company.

**EMPTY CONTAINER:** Follow all MSDS/label precautions even after container is emptied because it may retain product residues.

## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

**PROPER SHIPPING NAME:** Toxic solid, inorganic, n.o.s.

**PRIMARY HAZARD CLASS/DIVISION:** 6.1

**UN/NA NUMBER:** 3288

**PACKING GROUP:** II

**MARINE POLLUTANT #1:** Not a DOT 'Marine Pollutant' per 49CFR 171.8

**ROAD AND RAIL (ADR/RID)**

**PROPER SHIPPING NAME:** Toxic solid, inorganic, n.o.s.

**UN NUMBER:** 3288

**HAZARD CLASS:** 6.1

**PACKING GROUP:** II

**AIR (ICAO/IATA)**

**SHIPPING NAME:** Toxic solid, inorganic, n.o.s.

**UN/NA NUMBER:** 3288

**PRIMARY HAZARD CLASS/DIVISION:** 6.1

**PACKING GROUP:** II

**VESSEL (IMO/IMDG)**

**SHIPPING NAME:** Toxic solid, inorganic, n.o.s.

**UN/NA NUMBER:** 3288

**PRIMARY HAZARD CLASS/DIVISION:** 6.1

**PACKING GROUP:** II

**EmS:** F-A, S-A

**MARINE POLLUTANT #1:** No

**CANADA TRANSPORT OF DANGEROUS GOODS**

**SHIPPING NAME:** Toxic solid, inorganic, n.o.s.

**UN/NA NUMBER:** 3288

**PRIMARY HAZARD CLASS/DIVISION:** 6.1

**PACKING GROUP:** II

**15. REGULATORY INFORMATION**

**UNITED STATES**

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**311/312 HAZARD CATEGORIES:** Acute health hazard.

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA STATUS:** All components of this product are included in inventory, exempt, or notified

**REGULATIONS**

**STATE REGULATIONS:**

The following components appear in one or more of the following state hazardous substances lists

| Component | CAS        | CA | MA  | MN  | NJ  | PA  | RI  |
|-----------|------------|----|-----|-----|-----|-----|-----|
| Antimony  | 7440-36-0  | No | Yes | Yes | Yes | Yes | Yes |
| Tellurium | 13494-80-9 | No | Yes | No  | Yes | Yes | Yes |

**CALIFORNIA PROPOSITION 65:** This product is not known to contain any components for which the State of California has found to cause cancer, birth defects or other reproductive harm.

## CANADA

### WHMIS HAZARD SYMBOL AND CLASSIFICATION



Poison



Toxic

**DOMESTIC SUBSTANCE LIST (INVENTORY):** All components of this product are included in inventory, exempt, or notified

## 16. OTHER INFORMATION

**APPROVED BY:** EHS DEPT

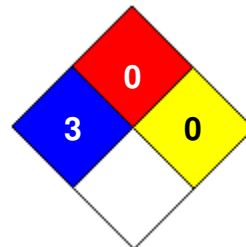
**PREPARED BY:** E Bolton

**INFORMATION CONTACT:** msds@lesker.com

### HMIS RATING

|                            |                                |
|----------------------------|--------------------------------|
| <b>HEALTH</b>              | <input type="text" value="2"/> |
| <b>FLAMMABILITY</b>        | <input type="text" value="0"/> |
| <b>PHYSICAL HAZARD</b>     | <input type="text" value="0"/> |
| <b>PERSONAL PROTECTION</b> | <input type="text" value="F"/> |

### NFPA CODES



### MANUFACTURER DISCLAIMER:

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