

SAFETY DATA SHEET

Date Issued : 4/20/2012
MSDS No : M-2230-045

Cadmium Telluride Pieces

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Cadmium Telluride Pieces

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 4

Acute Toxicity (Dermal), Category 4

Acute Toxicity (Oral), Category 4

Environmental:

Acute Hazards to the Aquatic Environment, Category 1

Chronic Hazards to the Aquatic Environment, Category 1

GHS LABEL



Exclamation
mark Environment

HAZARD STATEMENTS

H332: Harmful if inhaled.

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H410: Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENT(S)

Prevention:

P260: Do not breathe dust/fume/gas/mist/vapours/spray.
 P284: Wear respiratory protection.
 P202: Do not handle until all safety precautions have been read and understood.
 P273: Avoid release to the environment.

Response:

P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P308+P313: IF exposed or concerned: Get medical advice/attention.
 P391: Collect spillage.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Black solid

IMMEDIATE CONCERNS: Toxic if inhaled. Toxic if swallowed.

POTENTIAL HEALTH EFFECTS

EYES: Contact may cause eye irritation.

SKIN: Prolonged or repeated contact may cause skin irritation.

INGESTION: Toxic if swallowed.

INHALATION: Toxic if inhaled. May cause respiratory irritation.

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: Suspected of damaging fertility or the unborn child .

CARCINOGENICITY: IARC Group 1 - Carcinogenic to humans.

MUTAGENICITY: Suspected of causing genetic defects .

ROUTES OF ENTRY: Ingestion, Inhalation

TARGET ORGAN STATEMENT: Lungs, Kidneys

IRRITANCY: May cause respiratory irritation.

SENSITIZATION: None expected.

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
Cadmium Telluride	100	1306-25-8

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

INHALATION: May cause flu-like symptoms.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Not flammable.

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

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

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. Avoid formation of dust. Provide appropriate exhaust ventilation where dust is formed. Do not breath (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing. 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)
Cadmium	ACGIH TLV TWA	0.002
	OSHA OEL TWA	0.005
	Canada - BC, ON TWA	0.002
	Canada - PQ TWA	0.025
	Austria TWA	0.15
	Austria STEL	0.6
	Denmark TWA	0.005
	Denmark STEL	0.01
	France TWA	0.05
	Hungary, Switzerland TWA	0.015
	Poland, Spain TWA	0.01
	Sweden TWA	0.02
	Japan TWA	0.05
	Singapore TWA	0.01
	UK WEL TWA	0.025

9. PHYSICAL AND CHEMICAL PROPERTIES**PHYSICAL STATE:** Solid**ODOR:** None**COLOR:** Black**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:** Not Available**VAPOR DENSITY:** Not Available**BOILING POINT:** 1130°C**Notes:** Sublimes**MELTING POINT:** 1092°C**SOLUBILITY IN WATER:** Insoluble**DENSITY:** 6.2 at 25°C**MOLECULAR WEIGHT:** 240.01**10. STABILITY AND REACTIVITY**

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic metal fumes

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

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: Not Available

SKIN ABSORPTION: Not Available

ORAL LD₅₀: Not Available

INHALATION LC₅₀: Not Available

CARCINOGENICITY

IARC: Group 1 - Carcinogenic to humans.

NTP: Known to be a human carcinogen.

OSHA: Listed

GENETIC EFFECTS: Suspected of causing genetic defects .

REPRODUCTIVE EFFECTS: Suspected of damaging fertility or the unborn child .

TARGET ORGANS: Lungs, Kidneys

TERATOGENIC EFFECTS: Not Available

MUTAGENICITY: Suspected of causing genetic defects .

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: This material and its container must be disposed of as hazardous waste. 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: Cadmium compound

PRIMARY HAZARD CLASS/DIVISION: 6.1

UN/NA NUMBER: 2570

PACKING GROUP: III

MARINE POLLUTANT #1: Severe Marine Pollutant

ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Cadmium compound

UN NUMBER: 2570

HAZARD CLASS: 6.1

PACKING GROUP: III

AIR (ICAO/IATA)

SHIPPING NAME: Cadmium compound

UN/NA NUMBER: 2570

PRIMARY HAZARD CLASS/DIVISION: 6.1

PACKING GROUP: III

VESSEL (IMO/IMDG)

SHIPPING NAME: Cadmium compound

UN/NA NUMBER: 2570

PRIMARY HAZARD CLASS/DIVISION: 6.1

PACKING GROUP: III

EmS: F-A, S-A

MARINE POLLUTANT #1: Yes

CANADA TRANSPORT OF DANGEROUS GOODS

SHIPPING NAME: Cadmium compound

UN/NA NUMBER: 2570

PRIMARY HAZARD CLASS/DIVISION: 6.1

PACKING GROUP: III

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

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

313 REPORTABLE INGREDIENTS: Yes

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
Cadmium compounds	N/A	Yes	Yes	No	Yes	No	Yes

CALIFORNIA PROPOSITION 65: This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reproductive harm and may be subject to the requirements of California Proposition 65 (CA Health and Safety Code section 25249.5) : Cadmium

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION



Toxic

D2A

D2B

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

16. OTHER INFORMATION

APPROVED BY: EHS DEPT

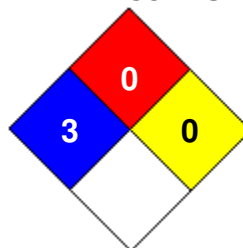
PREPARED BY: E Bolton

INFORMATION CONTACT: msds@lesker.com

HMIS RATING

HEALTH	*	2
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		H

NFPA CODES



MANUFACTURER DISCLAIMER:

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