

SAFETY DATA SHEET

Date Issued : 4/12/2012
MSDS No : M-1000-335

Zinc metal pieces

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Zinc metal pieces

GENERAL USE: Physical vapor deposition of thin films

MANUFACTURER

Kurt J Lesker Company

United States

1925 Route 51

Jefferson Hills, PA 15025

E-Mail: msds@lesker.com

Service Number: 412-387-9200

Kurt J Lesker Company LTD

United Kingdom

15-16 Burgess Road

Hastings, East Sussex, TN35 4NR

England

Service Number: +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 (Oral), Category 5

GHS LABEL

HAZARD STATEMENTS

H303: May be harmful if swallowed.

PRECAUTIONARY STATEMENT(S)

Response:

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Grey metal

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: May be harmful if swallowed.

INHALATION: May cause respiratory irritation.

REPRODUCTIVE TOXICITY**REPRODUCTIVE EFFECTS:** Not Available**TERATOGENIC EFFECTS:** Not Available**CARCINOGENICITY:** Not listed as a human carcinogen**MUTAGENICITY:** Not Available**MEDICAL CONDITIONS AGGRAVATED:** None expected.**ROUTES OF ENTRY:** Inhalation, ingestion, eye contact, or skin contact.**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
Zinc	100	7440-66-6

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. Low ingestion hazard in normal use.**INHALATION:** No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.**SIGNS AND SYMPTOMS OF OVEREXPOSURE****ACUTE TOXICITY:** Poses little or no immediate hazard.**CHRONIC EFFECTS:** Not Available**5. FIRE FIGHTING MEASURES****FLAMMABLE CLASS:** Combustible.**EXTINGUISHING MEDIA:** Do not use water because of violent reaction. 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**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.

SKIN: Wear protective gloves.

RESPIRATORY: Not normally needed. 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: There are no established workplace exposure limits for components of this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ODOR: None

COLOR: Grey

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: 907°C

MELTING POINT: 419.5°C

SOLUBILITY IN WATER: Insoluble

DENSITY: 7.14 at 25°C

MOLECULAR WEIGHT: 65.38

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic metal fumes

INCOMPATIBLE MATERIALS: Strong acids, Strong bases, Oxidizing materials, Halogens, Halocarbons, Selenium, Sulphur compounds, Peroxides, Cadmium. Powder is incompatible with water.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: Not Available

SKIN ABSORPTION: Not Available

ORAL LD₅₀: 630 mg/kg

Notes: Rat

INHALATION LC₅₀: 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: 9 day Bioconcentration Factor (BCF) =1100 (Asterias rubens)

AQUATIC TOXICITY (ACUTE)

96-HOUR LC₅₀: 2.72 ug/L (Oncorhynchus mykiss)

48-HOUR EC₅₀: 155 ug/L (Daphnia magna)

CHEMICAL FATE INFORMATION: Not Available

13. DISPOSAL CONSIDERATIONS

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

PRODUCT DISPOSAL: Material may be recyclable.

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: NA = Not Applicable

CANADA TRANSPORT OF DANGEROUS GOODS

SHIPPING NAME: NA = Not Applicable

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: None

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
Zinc	7440-66-6	No	Yes	Yes	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 (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): Not Regulated

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

16. OTHER INFORMATION

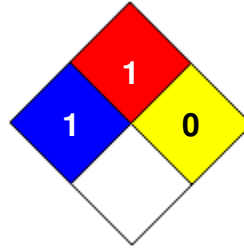
APPROVED BY: EHS DEPT

PREPARED BY: E Bolton

INFORMATION CONTACT: msds@lesker.com

HMIS RATING

HEALTH		1
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		B

NFPA CODES**MANUFACTURER DISCLAIMER:**

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