SECTION I - PRODUCT IDENTIFICATION
Chromium metal, pieces

MANUFACTURER NAME AND ADDRESS:
Kurt J. Lesker Co
P.O. Box 10
1925 Route 51
Clairton, PA 15025

UPC/EAN: 231-157-5
SYNONYMS: Chromium metal, chrome

CHEMICAL FAMILY: Metal

DOT HAZARD LABEL: No data.

FORMULA: Cr

MOLECULAR WEIGHT: 51.99

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION
Chromium metal, pieces

HAZARDOUS COMPONENTS (CHEMICAL NAME)
NAME: Chromium
CAS #: 7440-47-3
RTECS #: GB4200000
OSHA PEL: 1 mg/m3
ACGIH TLV: 0.5 mg/m3
OTHER LIMITS: NE
SEC.302 (EHS): No
SEC.313: Yes
See SECTION 16-Other Information

NAME: See SECTION 16-Other Information
CAS #: NA
RTECS #: NA
OSHA PEL: NA
ACGIH TLV: NA
OTHER LIMITS: NA
SEC.302 (EHS): No
SEC.313: No

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS
Chromium metal, pieces

PHYSICAL STATES: [ X ] Solid
BOILING POINT: 2672.00 °C (4841.6 °F)
MELTING POINT: 1857.00 °C (3374.6 °F)
SPECIFIC GRAVITY (WATER = 1):
7.20 at 28.0 C (82.4 F)

DENSITY:
No data.

VAPOR PRESSURE (VS. AIR OR MM HG):
1 at 1616.0 C (2940.8 F)

VAPOR DENSITY (VS. AIR = 1):
No data.

EVAPORATION RATE (VS. BUTYL ACETATE=1):
No data.

SOLUBILITY IN WATER:
Insoluble

PERCENT VOLATILE:
N.A.

PH:
No data.

APPEARANCE AND ODOR
Steel gray pieces, no odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA
Chromium metal, pieces

FLASH PT: N.A.

METHOD USED: No data.

EXPLOSIVE LIMITS: LEL: NA UEL: NA

EXTINGUISHING MEDIA
AUTOIGNITION TEMPERATURE: 1890 C for pieces

USE: Not applicable. Use suitable extinguishing agent for surrounding materials and type of fire.

SPECIAL FIRE FIGHTING PROCEDURES
Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Chromium reacts violently or explosively when heated with ammonium nitrate and bromine pentafluoride. Chromium has an incandescent reaction with nitrogen oxide or sulfur dioxide.

SECTION V - REACTIVITY DATA
Chromium metal, pieces

STABILITY: Unstable [ ] Stable [ X ]

CONDITIONS TO AVOID - INSTABILITY
None

INCOMPATIBILITY - MATERIALS TO AVOID
Strong oxidizing agents, dilute acids, strong alkalis, nitrogen oxide, potassium chloride, sulfur dioxide, molten lithium at 18C, fused ammonium nitrate below 200C, ammonium nitrite, bromine pentafluoride and carbon dioxide.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
Chromium oxide fumes

HAZARDOUS POLYMERIZATION: Will occur [ ] Will not occur [ X ]

CONDITIONS TO AVOID - HAZARDOUS POLYMERIZATION
None
SECTION VI - HEALTH HAZARD DATA
Chromium metal, pieces

ROUTE(S) OF ENTRY: Inhalation? Yes , Skin? No , Eyes? No , Ingestion? Yes , Other: N

HEALTH HAZARDS (ACUTE AND CHRONIC)
CHROMIUM: Confirmed human carcinogen with experimental tumorigenic data. Human poison by ingestion with gastrointestinal effects. (Sax, Dangerous Properties of Industrial Materials)

INHALATION:
Acute: May cause a red, dry throat.
Chronic: May cause histologic fibrosis of lungs, nasal and/or lung cancer.

INGESTION:
Acute: May cause gastrointestinal disorders.
Chronic: No chronic health effects recorded.

SKIN: Acute: May cause abrasive irritation.
Chronic: No chronic health effects recorded.

EYE:
Acute: May cause abrasive irritation.
Chronic: No chronic health effects recorded.

TARGET ORGANS: May affect the respiratory system.

CARCINOGENICITY: NTP? Yes , IARC Monographs? No , OSHA Regulated? No

CARCINOGENICITY/OTHER INFORMATION
ivn-rat TDLo: 2160 ug/kg/6W-I:ETA
imp-rat TDLo: 1200 ug/kg/6WI TFX:ETA
orl-hmn LDLo: 71 mg/kg:GIT
imp-rbt TDLo: 75 mg/kg: ETA

RECOMMENDED EXPOSURE LIMITS: See "Section II"

LD 50/LC 50: See "Carcinogenicity/Other Information"

SIGN AND SYMPTOMS OF EXPOSURE
INHALATION: May cause a red, dry throat, coughing and shortness of breath.

INGESTION: May cause gastritis, convulsions, asphyxia, giddiness, nausea, diarrhea and vomiting.

SKIN: May cause redness and itching.

EYE: May cause redness, itching and watering.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
Pre-existing respiratory disorders, pulmonary functions and asthma.

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Remove victim to fresh air; keep warm and quiet; give oxygen if breathing is difficult and seek medical attention.

INGESTION: Give 1-2 glasses of milk or water and induce vomiting; seek medical attention immediately. Never induce vomiting or give anything by mouth to an unconscious person.

SKIN: Remove contaminated clothing; brush material off skin; wash affected area with mild soap and water; seek medical attention if symptoms persist.
EYE: Flush eyes with lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.

NOTE TO PHYSICIAN

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE
Chromium metal, pieces

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Wear appropriate respiratory and protective equipment specified in section VIII-control measures. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

WASTE DISPOSAL METHOD
Dispose of in accordance with local, state and federal regulations.

RCRA WASTE ID CODE D007

HAZARD LABEL INFORMATION:
Store in cool, dry area Store in tightly sealed container
Wash thoroughly after handling

PRECAUTIONS TO BE TAKEN IN HANDLING
None

PRECAUTIONS TO BE TAKEN IN STORING
None

OTHER PRECAUTIONS
None

SECTION VIII - CONTROL MEASURES
Chromium metal, pieces

PROTECTIVE EQUIPMENT SUMMARY - HAZARD LABEL INFORMATION:
NIOSH approved respirator Impervious gloves Safety glasses
Clothes to prevent skin contact

RESPIRATORY EQUIPMENT (SPECIFY TYPE)
NIOSH approved respirator

VENTILATION
Local exhaust ventilation may be necessary to control any air contaminants to within their PELs or TLVs during the use of this product.
Good general ventilation is recommended.

EYE PROTECTION
Safety glasses

PROTECTIVE GLOVES
Rubber gloves

OTHER PROTECTIVE CLOTHING
Protective gear suitable to prevent contamination

WORK/HYGIENIC/MAINTENANCE PRACTICES
Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Kurt J. Lesker Company (“KJLC”) believes the information contained in this Material Safety Data Sheet is accurate as of the “Date of Last Revision” specified. The information relates only to typical properties of the product. Do not use the information for product performance or specification purposes. The information is for use by technically skilled persons at their own risk. **KJLC MAKES NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO THE PRODUCT OR THE INFORMATION.** The information may not be valid for product use in combination with any other product or material or in any process. KJLC expressly disclaims any liability arising from any use of the product or any reliance on the information. Do not treat the information (a) as assurance that use of the product will not infringe patent or other rights or (b) as a license or grant of patent or other property rights. **“KJLC” means KJLC and each of its subsidiaries.**

Abbreviations used: NA=Not Applicable NE: Not Established