SECTION I - PRODUCT IDENTIFICATION
Aluminum Metal, pieces

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

**TELEPHONE NUMBERS:**
CHEMTREC (800)424-9300
P. O. Box 10 (703)527-3887
1925 Route 51 (outside USA)
Clairton, PA 15025

**UPC/EAN:** 231-072-3

**SYNONYMS:**
Aluminum metal; alumina fibre; aluminum dehydrated; aluminum flake; A 00; A 95; A 99; A 995; A 999; AA 1099; AA 1199; AD 1; AD1M; ADO; AE; Alaun (German); Aluminum 27; Aluminum A00.

**CHEMICAL FAMILY:** Metal

**DOT HAZARD LABEL:** No data.

**FORMULA:** Al

**MOLECULAR WEIGHT:** 26.98

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION
Aluminum Metal, pieces

<table>
<thead>
<tr>
<th>HAZARDOUS COMPONENTS (CHEMICAL NAME)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NAME:</strong></td>
</tr>
<tr>
<td>Aluminum</td>
</tr>
<tr>
<td><strong>CAS #:</strong></td>
</tr>
<tr>
<td>7429-90-5</td>
</tr>
<tr>
<td><strong>PERCENTAGE:</strong></td>
</tr>
<tr>
<td>0.0 - 100.0 %</td>
</tr>
<tr>
<td><strong>RTECS #:</strong></td>
</tr>
<tr>
<td>BD0330000</td>
</tr>
<tr>
<td><strong>OSHA PEL:</strong></td>
</tr>
<tr>
<td>15 mg/m3</td>
</tr>
<tr>
<td><strong>ACGIH TLV:</strong></td>
</tr>
<tr>
<td>10 mg/m3</td>
</tr>
<tr>
<td><strong>OTHER LIMITS:</strong></td>
</tr>
<tr>
<td>5 mg/m3 resp</td>
</tr>
<tr>
<td><strong>SEC.302 (EHS):</strong></td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td><strong>SEC.304 RQ:</strong></td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td><strong>SEC.313:</strong></td>
</tr>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

| NAME: See SECTION 16-Other Information |
| **CAS #:**                           |
| NA                                   |
| **PERCENTAGE:**                      |
| 0.0 - 100.0 %                       |
| **RTECS #:**                         |
| NA                                   |
| **OSHA PEL:**                        |
| No data.                             |
| **ACGIH TLV:**                      |
| No data.                             |
| **OTHER LIMITS:**                    |
| No data.                             |
| **SEC.302 (EHS):**                  |
| No                                  |
| **SEC.304 RQ:**                     |
| No                                  |
| **SEC.313:**                        |
| No                                  |

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS
Aluminum Metal, pieces
PHYSICAL STATES:  [ ] Gas , [ ] Liquid , [ X ] Solid
BOILING POINT:  2467.00 C (4472.6 F)
MELTING POINT:  660.30 C (1220.5 F)
SPECIFIC GRAVITY (WATER = 1):  2.702
DENSITY:  No data.
VAPOR PRESSURE (VS. AIR OR MM HG):  1 mm at 1284.0 C (2343.2 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
Silver-white, metallic powder, no odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA
Aluminum Metal, pieces

FLASH PT: N.A. METHOD USED: No data.
EXPLOSIVE LIMITS: LEL: NA UEL: NA
EXTINGUISHING MEDIA
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
Dust is moderately flammable/explosive by heat, flame or chemical reaction with powerful oxidizers.
May ignite on contact with vapors of AsCl3, SC12, Se2Cl2, PC15; heating with barium peroxide; contact with O2; mixtures with picric acid+water after a delayed period; exothermic reaction with water+iron powder which emits hydrogen gas; and spontaneously ignites in CS2 vapors.
May ignite and react violently with mixtures of sodium peroxide and O2+H2O; on contact with halogens and interhalogens.
May react violently with hydrochloric acid, hydrofluoric acid, hydrogen chloride gas and disulfur dibromide; non-metals phosphorus, sulfur and selenium; with sulfur, Sb or As when heated; and potential violent reaction with sodium acetylid.
May have a violent or explosive reaction when heated with metal oxides, oxosalts, some halocarbons, sulfides or hot copper oxide worked with an iron or steel tool.
May have an explosive reaction with sodium sulfate above 800C; in powdered form with KClO4+Ba(NO3)2+KNO3+H2O and Ba(NO3)2+KNO3+sulfur+vegetable adhesives+H2O after delayed period; powder forms sensitive explosive mixture with oxidants; mixtures with powdered AgCl, NH4, NO3, or NH4NO3+Ca(NO3)2+formamide+H2O; mixtures with ammonium peroxodisulfate+water; and potential explosive reaction with CCl4 during ball milling operations (Sax, Dangerous Properties of Industrial Materials, eighth edition).
SECTION V - REACTIVITY DATA
Aluminum Metal, pieces

STABILITY: Unstable [ ] Stable [ X ]
CONDITIONS TO AVOID - INSTABILITY
None

INCOMPATIBILITY - MATERIALS TO AVOID
Water, oxidizing agents, acids, acid chlorides, harsh alkalis and halogenated compounds. See also "Unusual Fire and Explosion Hazards"

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
Hydrogen gas

HAZARDOUS POLYMERIZATION: Will occur [ ] Will not occur [ X ]
CONDITIONS TO AVOID - HAZARDOUS POLYMERIZATION
None

SECTION VI - HEALTH HAZARD DATA
Aluminum Metal, pieces

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

HEALTH HAZARDS (ACUTE AND CHRONIC)
To the best of our knowledge the chemical, physical and toxicological properties of aluminum have not been thoroughly investigated and recorded.

Aluminum compounds have many commercial uses and are commonly found in industry. Many of these materials are active chemically and thus exhibit dangerous toxic and reactive properties. Inhalation of fine aluminum oxide particles is associated with Shaver's disease. (Sax, Dangerous Properties of Industrial Materials, eighth edition)

INHALATION:
Acute: Inhalation of dust or powder may cause irritation to the respiratory system.
Chronic: Inhalation of finely divided powder may cause pulmonary fibrosis.

INGESTION:
Acute: No acute health effects recorded.
Chronic: May be implicated in Alzheimer's disease.

SKIN: Acute: No acute health effects recorded.
Chronic: No chronic health effects recorded.

EYE:
Acute: Dust and powder may cause abrasive irritation.
Chronic: No chronic health effects recorded.

TARGET ORGANS: No target organs recorded.
CARCINOGENICITY: NTP? No , IARC Monographs? No , OSHA Regulated? No
CARCINOGENICITY/OTHER INFORMATION
No data available.

**RECOMMENDED EXPOSURE LIMITS:** See "Section II" **LD 50/LC 50:** No toxicity data recorded

**SIGNS AND SYMPTOMS OF EXPOSURE**

**INHALATION:** May cause a red, dry, throat and coughing.

**INGESTION:** No acute or chronic health effects recorded.

**SKIN:** No acute or chronic health effects recorded.

**EYE:** May cause red, itching and watering.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

Pre-existing respiratory disorders.

**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 if symptoms persist. **INGESTION:** Not applicable

**SKIN:** Wash area with mild soap and water.

**EYE:** Flush eyes with lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if irritation persists.

**NOTE TO PHYSICIAN**

No data available.

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**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

**Aluminum Metal, pieces**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Wear appropriate respiratory and protective equipment specified in section 8-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.

**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**

Aluminum slowly generates hydrogen and heat on contact with water. Handle and store in a dry area.
SECTION VIII- CONTROL MEASURES
Aluminum 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 or vinyl disposable 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.

SECTION IX - ADDITIONAL COMMENTS
Aluminum Metal, pieces

Control of Substances Hazardous to Health Regulations
EH40 Occupational Exposure Limits

Maximum Exposure Limit: NE
Occupational Exposure Standard: 10 mg/m3 Total Inhalable Dust
5 mg/m3 Respirable Dust

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Abbreviations used: NA=Not Applicable NE: Not Established