MATERIAL SAFETY DATA SHEET
OSHA HAZARD COMMUNICATION RULE

DATE OF LAST REVISION: 03-16-01

CHEMICAL IDENTITY

LABEL IDENTITY
CHEMICAL NAME/SYNONYMS
LANTHANUM STRONTIUM COBALT OXIDE
LANTHANUM STRONTIUM COBALT OXIDE
FORMULA
LaSrCoO3

HAZARDOUS INGREDIENTS:

<table>
<thead>
<tr>
<th>%:</th>
<th>Oral Toxicity</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>La2O3</td>
<td>57.3</td>
<td>None Reported</td>
<td>NE</td>
</tr>
<tr>
<td>SrO</td>
<td>9.1</td>
<td>None Reported</td>
<td>NE</td>
</tr>
<tr>
<td>Co</td>
<td>33.6</td>
<td>None Reported</td>
<td>5 mg(Mn)/m³</td>
</tr>
</tbody>
</table>

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR
Odorless black powder/target
BOILING POINT
NA
MELTING POINT
NA
DENSITY (gm/cc)
NA
VAPOR PRESSURE @ 20°
NA
PH VALUE
NA
WATER SOLUBILITY
Insoluble

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT
NA
FLAMMABILITY
NA
EXTINGUISHING MEDIA
Use suitable means for extinguishing surrounding fire.
SPECIAL FIRE FIGHTING PROCEDURES
Use fire fighting measures that suit the surrounding fire. Do not use water or carbon dioxide as extinguishing agent.
UNUSUAL FIRE & EXPLOSIVE HAZARDS
None
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HEALTH HAZARD INFORMATION

TLV: R&D material, limits not established.
EFFECTS OF OVEREXPOSURE (acute and chronic): R&D material, effects not established

EMERGENCY FIRST AID PROCEDURES:
INGESTION: Seek immediate medical attention.
INHALATION: Remove to fresh air.
SKIN: Wash thoroughly with soap and water
Seek medical attention in all cases.

REACTIVITY DATA

Airborne dust particles, especially metal dust, and accumulation of such should be treated as explosives. To minimize danger from dust explosions, adequate ventilation should be provided to spray booth in accordance with American Welding Society publication AWSC2.1-73, and ACGIH publication “Industrial Ventilation”.

Decomposition will not occur if used and stored according to specifications. Avoid acids, water/moisture.

SAFE HANDLING AND USE

Local dust pickup recommended for open flowing powdered products. Wear personal protective equipment to protect health if TLV is exceeded while handling product. Store material in a dry location with adequate support for the weight of the product. Use caution when lifting product cartons not to strain your back muscles. Store material away from ignition sources which could catch packaging materials on fire.

Dispose of in containers for recycle or reuse. Do not throw in trash or place in landfill. Refer to government and regional requirements.

SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION
If there is dustiness, wear a respirator selected per OSHA standards.

HAND PROTECTION
Gloves recommended

EYE PROTECTION
Splash goggles, safety glasses, or face shields recommended.

BODY PROTECTION
An apron, or other impermeable body Protection suggested. Wash any contaminated clothing before reuse.
PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:

Keep in tightly closed container, store in cool dry ventilated area, isolate from incompatible substances.

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NA= NOT APPLICABLE  ND= NO DATA FOUND