

## SAFETY DATA SHEET Silver (pieces)

1. Identification	
Product identifier	
Product name	Silver (pieces)
Internal identification	Replaces M-1000-005
CAS number	7440-22-4
Recommended use of the c	hemical and restrictions on use
Application	Exterior surface coating.
Uses advised against	No specific uses advised against are identified.
Details of the supplier of the	e safety data sheet
Supplier	Kurt J Lesker Company
Manufacturer	Kurt J Lesker Company 1925 Route 51 Jefferson Hills, PA 15025 +1 412-387-9200
	Kurt J Lesker Company LTD United Kingdom 15-16 Burgess Road Hastings, East Sussex, TN35 4NR England Customer Service: +44 (0) 1424 458100 msds@lesker.com
Emergency telephone numb	<u>per</u>
Emergency telephone	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
	Access Code - 333594
2. Hazard(s) identification	
Classification of the substar	nce or mixture
Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified
Label elements	

## Other hazards

Based on available knowledge of this material, it has been determined to be non-hazardous and will not pose a risk to persons or the environment in its provided form. However, any cutting, welding, melting, grinding, or use for deposition will produce dust, fume, or particulates containing component elements of this material. Exposure to these components may present significant health hazards. Note: Fine particulate may be a combustible dust which, when dispersed in air, may present an explosion hazard.

3. Composition/information on ingredients	
Mixtures	
Silver (pieces)	0 - 100%
CAS number: 7440-22-4	
Classification	
Not Classified	

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures	
Description of first aid me	asures
General information	If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.
Inhalation	No specific recommendations. If throat irritation or coughing persists, proceed as follows.

	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if any discomfort continues.
Ingestion	No specific recommendations. If throat irritation or coughing persists, proceed as follows.

	Rinse mouth. Get medical attention if any discomfort continues.	
Skin Contact	No specific recommendations. Rinse with water. Get medical attention if any discomfort continues.	

Eye contact	Rinse with water.	Get medical attention if an	y discomfort continues.

**Protection of first aiders** Use protective equipment appropriate for surrounding materials.

## Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	No specific symptoms known.	
Ingestion	No specific symptoms known. May cause discomfort if swallowed.	
Skin contact	Prolonged contact may cause dryness of the skin.	
Eye contact	No specific symptoms known. May be slightly irritating to eyes.	
Indication of immediate medical attention and special treatment needed		
Notes for the doctor	Treat symptomatically.	
Specific treatments	No special treatment required.	
5. Fire-fighting measures		

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Extinguishing media

Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Special hazards arising from the	he substance or mixture
Specific hazards	None known.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.
Advice for firefighters	
Protective actions during firefighting	Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.
6. Accidental release measure	IS
Personal precautions, protection	ve equipment and emergency procedures
Personal precautions	No specific recommendations. For personal protection, see Section 8.
Environmental precautions	
Environmental precautions	Avoid discharge into drains or watercourses or onto the ground.
Methods and material for conta	ainment and cleaning up
Methods for cleaning up	Reuse or recycle products wherever possible. Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of contents/container in accordance with national regulations.
Reference to other sections	For personal protection, see Section 8.
7. Handling and storage	
Precautions for safe handling	
Usage precautions	Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use.
Advice on general occupational hygiene	Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.
Conditions for safe storage, in	cluding any incompatibilities
Storage precautions	No specific recommendations.
Storage class	Unspecified storage.
Specific end uses(s)	
Specific end use(s)	The identified uses for this product are detailed in Section 1.
8. Exposure Controls/personal	protection

## **Control parameters**

## Occupational exposure limits

#### Silver (pieces)

Long-term exposure limit (8-hour TWA): OSHA 0.01 mg/m<sup>3</sup> as Ag Long-term exposure limit (8-hour TWA): ACGIH 0.1 mg/m<sup>3</sup> dust and fume OSHA = Occupational Safety and Health Administration. ACGIH = American Conference of Governmental Industrial Hygienists.

## Silver (pieces) (CAS: 7440-22-4)

Immediate danger to life and health	10 mg/m³
9. Physical and Chemical Properties	
Information on basic physical and chemical properties	

P P P P P P P
Solid.
Silver.
No characteristic odor
Not applicable.
Not applicable.
961.76°C
Not available.
Not applicable.
Not applicable.
Not applicable.
Not applicable.
Not available.
Not available.
~ 10.5 @ 25°C
Not available.
Insoluble in water.
Not applicable.
Not applicable.
Not available.
Not applicable.
107.868

Reactivity

There are no known reactivity hazards associated with this product.

Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.
11. Toxicological information	
Information on toxicological ef	fects
Toxicological effects	Not regarded as a health hazard under current legislation.
Acute toxicity - oral Notes (oral LD₅o)	Based on available data the classification criteria are not met.
Acute toxicity - dermal Notes (dermal LD₅o)	Based on available data the classification criteria are not met.
Acute toxicity - inhalation Notes (inhalation LC <sub>50</sub> )	Based on available data the classification criteria are not met.
Skin corrosion/irritation Animal data	Based on available data the classification criteria are not met.
Serious eye damage/irritation Serious eye damage/irritation	Based on available data the classification criteria are not met.
Respiratory sensitization Respiratory sensitization	Based on available data the classification criteria are not met.
Skin sensitization Skin sensitization	Based on available data the classification criteria are not met.
Germ cell mutagenicity Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	None of the ingredients are listed or exempt.
Reproductive toxicity Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
Specific target organ toxicity -	single exposure
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
Specific target organ toxicity -	repeated exposure

STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
Aspiration hazard Aspiration hazard	Not relevant. Solid.
General information	No specific health hazards known. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	No specific symptoms known.
Ingestion	No specific symptoms known. May cause discomfort if swallowed.
Skin Contact	Prolonged contact may cause dryness of the skin.
Eye contact	No specific symptoms known. May be slightly irritating to eyes.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs	No specific target organs known.
12. Ecological Information	
Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
Toxicity	Based on available data the classification criteria are not met.
Persistence and degradability	
Persistence and degradability	The degradability of the product is not known.
Bioaccumulative potential	
Bio-Accumulative Potential	No data available on bioaccumulation.
Partition coefficient	Not applicable.
Mobility in soil	
Mobility	No data available.
Other adverse effects	
Other adverse effects	None known.
13. Disposal considerations	
Waste treatment methods	
General information	The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way.
Disposal methods	Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.
14. Transport information	
General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

### **UN Number**

Not applicable.

UN proper shipping name

Not applicable.

### Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance No.

Special precautions for user

Not applicable.

## Transport in bulk according to Not applicable. Annex II of MARPOL 73/78 and the IBC Code

### 15. Regulatory information

### **US Federal Regulations**

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

#### CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Final CERCLA RQ: 1000 lbs

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

#### SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

## **CAA Accidental Release Prevention**

None of the ingredients are listed or exempt.

### FDA - Essential Chemical

None of the ingredients are listed or exempt.

## FDA - Precursor Chemical

None of the ingredients are listed or exempt.

### SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

## OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

#### **US State Regulations**

California Proposition 65 Carcinogens and Reproductive Toxins None of the ingredients are listed or exempt.

None of the ingredients are listed of exempt.

California Air Toxics "Hot Spots" (A-I) None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II) None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List All the ingredients are listed or exempt.

Rhode Island "Right To Know" List All the ingredients are listed or exempt.

Minnesota "Right To Know" List All the ingredients are listed or exempt.

**New Jersey "Right To Know" List** All the ingredients are listed or exempt.

Pennsylvania "Right To Know" List All the ingredients are listed or exempt.

## Inventories

**US - TSCA** All the ingredients are listed or exempt.

## US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

16. Other information	
Training advice	Only trained personnel should use this material.
Revision date	3/15/2017
Revision	3
Supersedes date	11/19/2015
SDS No.	4564
End of SDS	

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.