SAFETY DATA SHEET
Tin Oxide (powder and pieces)

1. Identification

Product identifier
Product name
Tin Oxide (powder and pieces)
Internal identification
Replaces M-2200-300, M-2200-301, M-2200-302, M-2200-303
CAS number
18282-10-5

Recommended use of the chemical and restrictions on use
Application
Exterior surface coating.
Uses advised against
No specific uses advised against are identified.

Details of the supplier of the 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 number
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

2. Hazard(s) identification

Classification of the substance or mixture
Physical hazards
Not Classified
Health hazards
Not Classified
Environmental hazards
Not Classified

Label elements
Hazard statements
NC Not Classified

Other hazards
**Tin Oxide (powder and pieces)**

This substance is not classified as PBT or vPvB according to current EU criteria. 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

<table>
<thead>
<tr>
<th>Mixtures</th>
<th>0 - 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tin Oxide (pieces)</td>
<td></td>
</tr>
<tr>
<td>CAS number: 18282-10-5</td>
<td></td>
</tr>
</tbody>
</table>

**Classification**

Not Classified

The Full Text for all Hazard Statements are Displayed in Section 16.

### 4. First-aid measures

**Description of first aid measures**

**General information**

If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

**Inhalation**

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 symptoms are severe or persist.

**Ingestion**

Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.

**Skin Contact**

Rinse with water.

**Eye contact**

Rinse with water. Get medical attention if any discomfort continues.

**Protection of first aiders**

First aid personnel should wear appropriate protective equipment during any rescue.

**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.

**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.

### 5. Fire-fighting measures

**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.
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Special hazards arising from the 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. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

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 measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk.

Environmental precautions

Environmental precautions
Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

Methods and material for containment and cleaning up

Methods for cleaning up
Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. 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. Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

Reference to other sections
For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

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. Avoid discharge to the aquatic environment.

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, including any incompatibilities

Storage precautions
Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.

Storage class
Miscellaneous hazardous material storage.

Specific end uses(s)
The identified uses for this product are detailed in Section 1.2.
Tin Oxide (powder and pieces)

8. Exposure Controls/personal protection

Exposure controls

Protective equipment

Appropriate engineering controls

Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection

No specific hand protection recommended. Avoid contact with skin.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures

Wash hands thoroughly after handling. Wash at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection

Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

Environmental exposure controls

Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance

Solid.

Color

White/off-white.

Odor

No characteristic odor.

Odor threshold

Not applicable.

pH

Not applicable.

Melting point

1630°C

Initial boiling point and range

Not available.

Flash point

Not applicable.

Evaporation rate

Not applicable.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Not applicable.

Vapor pressure

Not available.

Vapor density

Not available.
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Relative density 6.95 @ 25°C

Bulk density Not available.

Solubility(ies) Insoluble in water.

Partition coefficient Not applicable.

Auto-ignition temperature Not applicable.

Decomposition Temperature Not available.

Viscosity Not applicable.

Molecular weight Not available.

10. Stability and reactivity

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 effects

Acute toxicity - oral Based on available data the classification criteria are not met.

Notes (oral LD₅₀)

Acute toxicity - dermal Based on available data the classification criteria are not met.

Notes (dermal LD₅₀)

Acute toxicity - inhalation Based on available data the classification criteria are not met.

Notes (inhalation LC₅₀)

Skin corrosion/irritation Based on available data the classification criteria are not met.

Animal data

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization Based on available data the classification criteria are not met.

Germ cell mutagenicity
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**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**  
Not relevant. Solid.

**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.

**Skin Contact**  
Prolonged contact may cause dryness of the skin.

**Eye contact**  
No specific symptoms known.

**Route of entry**  
Ingestion Inhalation Skin and/or eye contact

**Target Organs**  
No specific target organs known.

### 12. Ecological Information

**Toxicity**  
Aquatic Chronic 4 - H413 May cause long lasting harmful effects to aquatic life.

**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**  
No data available.

**Other adverse effects**  
None known.

### 13. Disposal considerations

**Waste treatment methods**
Tin Oxide (powder and pieces)

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. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods
Dispose of waste via a licensed waste disposal contractor.

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)
None of the ingredients are listed or exempt.

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.
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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.

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
None of the ingredients are listed or exempt.

Rhode Island "Right To Know" List
None of the ingredients are listed or exempt.

Minnesota "Right To Know" List
None of the ingredients are listed or exempt.

New Jersey "Right To Know" List
Yes

Pennsylvania "Right To Know" List
None of the ingredients are listed or exempt.

Inventories

Canada - DSL/NDSL
DSL

US - TSCA
Present.

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
3/20/2017

Revision
6
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Supersedes date 2/3/2017
SDS No. 4683
Hazard statements in full H413 May cause long lasting harmful effects to aquatic life.
End of SDS