Safety Data Sheet
acc. to OSHA HCS

Printing date 06/17/2024 Reviewed on 06/17/2024

1 Identification

· **Product identifier**

· **Trade name:** **Lotpaste SP2200D TSC305**

Lotpaste SP2200D TSC0307

· **Application of the substance / the mixture** Brazing alloy

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Stannol GmbH & Co. KG
Haberstrasse 24
D-42551 Velbert

+49 (0) 2051 3120 332
sdb@stannol.de

· **Information department:** Product Safety Department
· **Emergency telephone number:**
8:00 am - 5:00 pm (CET) +49 (0) 2051 3120 332

+1 (307) 899 3845

2 Hazard(s) identification

· **Classification of the substance or mixture**
Eye Damage 1 H318 Causes serious eye damage.

· **Label elements**
· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS05

· **Signal word** Danger

· **Hazard-determining components of labeling:**
2-(2-hexyloxyethoxy)ethanol
· **Hazard statements**
Causes serious eye damage.
· **Precautionary statements**
Avoid release to the environment.
Wear protective gloves / eye protection / face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**

Health = 3
Fire = 1
Reactivity = 0

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with nonhazardous additions.
· **Dangerous components:**

CAS: 7440-31-5 EINECS: 231-141-8	tin
CAS: 112-59-4 EINECS: 203-988-3	2-(2-hexyloxyethoxy)ethanol
CAS: 7440-22-4 EINECS: 231-131-3	Silver (Powder <0.0001mm)
CAS: 7440-50-8 EINECS: 231-159-6	Copper, powder (< 0.9 mm)
	Diisooctylamin
CAS: 3234-02-4 EINECS: 221-779-5	2,3-dibromo-2-butene-1,4-diol

4 First-aid measures

· **Description of first aid measures**
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** If symptoms persist consult doctor.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:** No special measures required.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear protective clothing.
· **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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· **Protective Action Criteria for Chemicals**
· **PAC-1:**

CAS: 7440-31-5	tin	6 mg/m³
CAS: 112-59-4	2-(2-hexyloxyethoxy)ethanol	3.7 mg/m³
CAS: 7440-50-8	Copper, powder (< 0.9 mm)	3 mg/m³

· **PAC-2:**

CAS: 7440-31-5	tin	67 mg/m³
CAS: 112-59-4	2-(2-hexyloxyethoxy)ethanol	41 mg/m³
CAS: 7440-50-8	Copper, powder (< 0.9 mm)	33 mg/m³

· **PAC-3:**

CAS: 7440-31-5	tin	400 mg/m³
CAS: 112-59-4	2-(2-hexyloxyethoxy)ethanol	480 mg/m³
CAS: 7440-50-8	Copper, powder (< 0.9 mm)	200 mg/m³

7 Handling and storage

· **Handling:**
· **Precautions for safe handling** No special precautions are necessary if used correctly.
· **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep receptacle tightly sealed.
· **Storage class:** 10
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see section 7.

· **Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

CAS: 7440-31-5 tin

PEL (USA)	Long-term value: 2 mg/m³ metal
REL (USA)	Long-term value: 2 mg/m³
TLV (USA)	Long-term value: 2* mg/m³ metal, *inh. particulate matter

CAS: 7440-22-4 Silver (Powder <0.0001mm)

PEL (USA)	Long-term value: 0.01 mg/m³
REL (USA)	Long-term value: 0.01 mg/m³
TLV (USA)	Long-term value: 0.1 mg/m³ metal: dust and fume
IOELV (EU)	Long-term value: 0.1 mg/m³

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CAS: 7440-50-8 Copper, powder (< 0.9 mm)

PEL (USA)	Long-term value: 1* 0.1** mg/m³ as Cu *dusts and mists **fume
REL (USA)	Long-term value: 1* 0.1** mg/m³ as Cu *dusts and mists **fume
TLV (USA)	Long-term value: 1* 0.2** mg/m³ *dusts and mists; **fume; as Cu

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
· **Breathing equipment:**
Not necessary if room is well-ventilated.
Use suitable respiratory protective device in case of insufficient ventilation.
Filter A/P2
· **Protection of hands:**

Protective gloves

Solvent resistant gloves
Rubber gloves
Synthetic gloves
To avoid skin problems reduce the wearing of gloves to the required minimum.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:** Safety glasses

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Pasty
Color:	Grey
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined.

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· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	259 °C (498.2 °F)
· **Flash point:**	> 100 °C (> 212 °F)
· **Flammability (solid, gaseous):**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **Ignition temperature:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure at 50 °C (122 °F):**	< 1,100 hPa (< 0.800 mm Hg)
· **Density:**	Not determined.
· **Relative density**	Not determined.
· **Vapor density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic at 40 °C (104 °F):	> 20.5 mm²/s
· **Solvent content:**	
VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **LD/LC50 values that are relevant for classification:**
CAS: 112-59-4 2-(2-hexyloxyethoxy)ethanol
Oral LD50 4,920 mg/kg (rat)
Dermal LD50 1,500 mg/kg (rabbit)

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· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** Strong irritant with the danger of severe eye injury.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

CAS: 128-37-0 Butylated hydroxytoluene 3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even extremely small quantities leak into the ground.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:** Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

· **UN-Number**
· **DOT, ADN, IMDG, IATA** not regulated

· **UN proper shipping name**
· **DOT, ADN, IMDG, IATA** not regulated

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· **Transport hazard class(es)**

· **DOT, ADN, IMDG, IATA**
· **Class** not regulated

· **Packing group**
· **DOT, IMDG, IATA** not regulated

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Not applicable.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **UN "Model Regulation":** not regulated

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
· **Sara**
· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.
· **Section 313 (Specific toxic chemical listings):**
CAS: 112-59-4 2-(2-hexyloxyethoxy)ethanol
CAS: 7440-50-8 Copper, powder (< 0.9 mm)
· **TSCA (Toxic Substances Control Act):**

CAS: 7440-31-5	tin	ACTIVE
CAS: 112-59-4	2-(2-hexyloxyethoxy)ethanol	ACTIVE
	komplexes Gemisch aus chinesischem Balsamharz, nachreagiert mit Acrylsäure	ACTIVE
CAS: 7440-50-8	Copper, powder (< 0.9 mm)	ACTIVE
	Diisooctylamin	ACTIVE
CAS: 61788-95-2	Amine, (hydrierte Talg-alkyl)dimethyl-	ACTIVE
CAS: 3234-02-4	2,3-dibromo-2-butene-1,4-diol	ACTIVE
CAS: 128-37-0	Butylated hydroxytoluene	ACTIVE

· **Hazardous Air Pollutants**
None of the ingredients is listed.
· **Proposition 65**
· **Chemicals known to cause cancer:**
None of the ingredients is listed.
· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.
· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.
· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.
· **Carcinogenic categories**
· **EPA (Environmental Protection Agency)**
CAS: 7440-50-8 Copper, powder (< 0.9 mm) D

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· **TLV (Threshold Limit Value)**
CAS: 128-37-0 Butylated hydroxytoluene A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS05

· **Signal word** Danger

· **Hazard-determining components of labeling:**
2-(2-hexyloxyethoxy)ethanol
· **Hazard statements**
Causes serious eye damage.
· **Precautionary statements**
Avoid release to the environment.
Wear protective gloves / eye protection / face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product Safety Department
· **Contact:** Hr. Dörr
· **Date of preparation / last revision** 06/17/2024 / 1.4
· **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Eye Damage 1: Serious eye damage/eye irritation – Category 1