



STANNOL

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture Lötzinn ECOLOY® TSC

Synonyms Lötzinn ECOLOY® TSC (Sn, Cu 0,5-0,9%, Ag 3,6-4,0%) * Lötzinn ECOLOY® TSC 263 (Sn, Cu 0,2-0,4%, Ag 2,4-2,8%) * Lötzinn ECOLOY® TSC 283 (Sn, Cu 0,2-0,4%, Ag 2,6-3,0%) * Lötzinn ECOLOY® TSC 305 (Sn, Cu 0,3-0,7%, Ag 2,8-3,2%) * Lötzinn ECOLOY® TSC 0307 (Sn, Cu 0,5-0,9%, Ag 0,2-0,4%) * Lötzinn ECOLOY® TSC 0307 (Sn, Cu 0,6-0,8%, Ag 0,25-0,35%) * Lötzinn ECOLOY® TSC 355 (Sn, Cu 0,4-0,6%, Ag 3,3-3,7%) * Lötzinn ECOLOY® TSC 385 (Sn, Cu 0,4-0,6%, Ag 3,6-4,0%) * Lötzinn ECOLOY® TSC 409 (Sn, Cu 0,8-1,0%, Ag 3,8-4,2%)

Issue date 20-August-2012

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Supersedes date 10-April-2013

Product use professional use

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Metal alloy for soft solder

Uses advised against None known

1.3. Details of the supplier of the safety data sheet

Company name STANNOL GmbH

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42283 Wuppertal
Germany

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This preparation does not meet the criteria for classification according to Directive 1999/45/EC as amended.

Hazard summary

Physical hazards Not classified for physical hazards.

Health hazards Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.

Environmental hazards Not classified for hazards to the environment.

Specific hazards Not available.

Main symptoms Not available.

2.2. Label elements

Label according to Directive 67/548/EEC or 1999/45/EC as amended

EC number -

EC label Not available.

R-phrases Not available.

S-phrases Not available.

Authorisation number Not available.

Supplemental label information Not applicable.

2.3. Other hazards Not assigned.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Tin	<= 95	7440-31-5 231-141-8	-	-	#
Classification:	DSD: -				
	CLP: -				
Silver (metal, >1mm)	<= 4	7440-22-4 231-131-3	-	-	#
Classification:	DSD: -				
	CLP: -				
Copper Metal	<= 1	7440-50-8 231-159-6	-	-	
Classification:	DSD: -				
	CLP: -				

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

#: This substance has been assigned Community workplace exposure limit(s).

SECTION 4: First aid measures

General information Not available.

4.1. Description of first aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.
Eye contact	Remove contact lenses, if present and easy to do. Rinse immediately with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed Not available.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards Not available.

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	Water, CO2 or Foam

5.2. Special hazards arising from the substance or mixture The product itself does not burn. Hot melt

5.3. Advice for firefighters

Special protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Special fire fighting procedures	Water runoff can cause environmental damage.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** Keep unnecessary personnel away. Ensure adequate ventilation. Wear appropriate protective equipment and clothing during clean-up.
- For emergency responders** Not available.

6.2. Environmental precautions Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Remove material, as much as possible, using mechanical equipment. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. For waste disposal, see section 13.

6.4. Reference to other sections For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Use only with adequate ventilation. Avoid prolonged exposure. Avoid release to the environment. Use care in handling/storage.

7.2. Conditions for safe storage, including any incompatibilities Store in a dry place. Store in original tightly closed container. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Copper Metal (7440-50-8)	STEL	2 mg/m ³	Inhalable dusts and mists.
	TWA	1 mg/m ³	Inhalable dusts and mists.
		0.2 mg/m ³	Fume.
Silver (metal, >1mm) (7440-22-4)	TWA	0.1 mg/m ³	
		0.1 mg/m ³	

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
Silver (metal, >1mm) (7440-22-4)	TWA	0.1 mg/m ³
Tin (7440-31-5)	TWA	2 mg/m ³

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide adequate general and local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical goggles are recommended.

Skin protection

- Hand protection Wear protective gloves. Leather gloves.

- Other Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal hazards Thermally protective gloves are recommended. If contact with forearms is likely, wear gauntlet-style gloves. Avoid contact with molten material.

Hygiene measures Avoid contact with skin. When using, do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practices. Avoid contact with eyes.

Environmental exposure controls Not available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Solid.
Form	barren, Roll.
Colour	Metallic.
Odour	Odourless.
Odour threshold	Not available.
pH	Not applicable.
Melting point/freezing point	217 °C (422.6 °F)
Initial boiling point and boiling range	Not available.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not available.
Solubility(ies)	insoluble
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Explosive properties	Not available.
Oxidizing properties	Not available.

9.2. Other information

Density	7.00 - 9.00 g/ml @ 20 °C
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SECTION 10: Stability and reactivity

10.1. Reactivity	Strong oxidizing agents.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	None under normal conditions.
10.5. Incompatible materials	Acids. Chlorine.
10.6. Hazardous decomposition products	Not available.

SECTION 11: Toxicological information

General information	Not available.
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Information on likely routes of exposure

Ingestion	Not available.
Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.

Symptoms	Not available.
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11.1. Information on toxicological effects

Components	Species	Test results
Copper Metal (7440-50-8)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg, OECD Guideline 402
<i>Oral</i>		
LD50	Rat	> 2500 mg/kg, OECD Guideline 401
Silver (metal, >1mm) (7440-22-4)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Skin corrosion/irritation	Not available.	
Serious eye damage/irritation	Not available.	
Respiratory sensitisation	Not available.	
Skin sensitisation	Not available.	
Germ cell mutagenicity	Not available.	
Carcinogenicity	Not available.	
Reproductive toxicity	Not available.	
Specific target organ toxicity - single exposure	Not available.	
Specific target organ toxicity - repeated exposure	Not available.	
Aspiration hazard	Not available.	
Mixture versus substance information	Not available.	
Other information	Not available.	

SECTION 12: Ecological information

12.1. Toxicity	Not expected to be harmful to aquatic organisms. Avoid discharge into drains, water courses or onto the ground.
12.2. Persistence and degradability	No data is available on the degradability of this product.
12.3. Bioaccumulative potential	Not available.
Partition coefficient n-octanol/water (log Kow)	Not available.
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	Not available.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods	
Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

SECTION 14: Transport information

ADR	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorisation

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not regulated.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not regulated.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not regulated.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Not regulated.

Directive 94/33/EC on the protection of young people at work

Not regulated.

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. The product does not need to be labelled in accordance with EC directives or respective national laws.

National regulations

Not available.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

Not available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

None.

Training information

Not available.

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

SDS sections updated

Product and company identification: Synonyms