

# Material Safety Data Sheet

In accordance with REACH Regulation (EC) no. 1907/2006

## 1. Identification of the substance/mixture and of the company/undertaking.

**Produktidentificator:** UNITIN AG3 **PR-nr.:** 899141

**Relevant identified uses of the substance or mixture and uses advised against:**  
The product is used for soldering

**Details of the supplier of the safety data sheet:**

**Producer:**

**Company:** Unipak A/S  
Marktoften 3c  
8464 Galten  
Denmark

**Contactperson:** lja@eurofins.dk

**Phone no. for emergencies:** +45 86 26 11 77 (Unipak, during working hours)  
+45 82 12 12 12 (Bispebjerg hospital, Giftlinje ("Toxins Line"))

**Date:** 28.9.2012

The logo for Unipak, featuring the word "Unipak" in a bold, yellow, sans-serif font with a blue outline.

## 2. Hazards identification

### Classification of the substance or mixture:

The product is classified as dangerous with N, R50-53 according to Danish Environment Ministry Order no.1075/2011.. Molten product can cause severe burns on contact with skin and eyes. The product is hazardous to the environment.

The full text of R-phrases see. 16

### Labeling elements:

#### Labeling according to 1075/2011

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. (R50-53)

This material and its container must be disposed of as hazardous waste (S60)  
Avoid release to the environment. Refer to special instructions / safety data sheet (S61)



Other hazards: None known.

PBT/vPvB: Components are not PBT/vPvB according to the criteria in REACH Annex XIII.

## 3. Composition/information on ingredients

### Substances: -

### Mixtures:

<u>Substance name</u>	<u>CAS-no.</u>	<u>EF-no.</u>	<u>Indeks-no.</u>	<u>Veight- %</u>	<u>REACH reg.-no.</u>	<u>Classification</u>
Tin	7440-31-5	231-141-8	-	90-98	-	- <b>CLP*:</b> -
Silver	7440-22-4	231-131-3	-	1-3	-	N;R50-53, M=10 <b>CLP:</b> Aquatic Acute 1;H400, M=1 Aquatic Chronic 1;H410, M=10

CLP\*: European Parliament and Council Regulation (EC) no. 1272/2008.

The full text of R- and H-phrases: see section. 16

## 4. First-aid measures

### Description of first aid measures:

#### Inhalation:

Seek fresh air. **Mild cases:** Keep still under observation. At discomfort: Seek medical attention. **Severe cases:** Place unconscious in recovery position with the head in a low position and keep warm. If breathing has stopped, administer artificial respiration; Seek medical attention or ambulance immediately.

#### Skincontact:

Wash the skin with plenty of soap and water. After washing, rub skin with a thick cream. At contact with molten product, flush with plenty of water for 15-20 minutes. If medical treatment is necessary, continue flushing until medical attention is obtained.

#### Eye contact:

Open the eye, rinse immediately with water or saline for at least 15 minutes. Remove contact lenses. If symptoms persist: Seek medical attention. Continue rinsing the eye during the transportation to doctor/hospital.

#### 4. First-aid measures

**Swallowing:**

Immediately rinse mouth thoroughly and drink plenty of water. If immediate medical attention is not possible, do not induce vomiting. Keep the head low to prevent aspiration. Call an ambulance immediately. Do not administer liquid to unconscious. At unconsciousness see medical inhalation.

**Burns:**

Rinse with water until pain ceases. While flushing, remove clothes which do not adhere to the skin area. If medical treatment is necessary, continue flushing until medical attention is obtained.

**Most important symptoms and effects, both acute and delayed:**

Molten product can cause severe burns on contact with skin and eyes.

**Indication of any immediate medical attention and special treatment needed:**

Unconscious: Immediately get medical attention. Show this safety data sheet to the doctor or emergency room.

#### 5. Fire-fighting measures

**Extinguishing media:**

Water spray (never water jet - spreads the fire) CO2 foam, sand or powder.

**Special hazards arising from the substance or mixture:**

The product is not flammable. Burning produces toxic gases. for example. carbon dioxide, carbon monoxide, smoke, metal oxide etc.

**Advice for firefighters:**

As far as possible remove the product from areas threatened by fire, or cool with water. Wear self-contained breathing apparatus for firefighting.

#### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment - see section. 8. Ensure good ventilation. Avoid inhalation of vapors from molten product.

**Environmental precautions:**

At release to the external environment, contact the environmental authorities

**Methods and materials for containment and cleaning up:**

Larger quantities should be handled as hazardous waste. Rinse thoroughly with water. Further handling of spillage - see section. 13

**Reference to other sections:**

See above.

#### 7. Handling and storage

**Precautions for safe handling:**

Ensure good ventilation. Ventilation is required when dust or vapors are created (soldering). Avoid contact with skin, eyes and clothing. Wear protective gloves. At the risk of the hot product getting in your eyes, wear protective glasses. Access to water supply and eye wash facilities.

## 7. Handling and storage

### Conditions for safe storage, including any incompatibilities:

Store in tightly closed original container in a dry place.  
Keep separate from food, feedstuffs, etc.

Fire hazard class: -

### Specific use:

See application - section. 1

## 8. Exposure controls/personal protection

### Control parameters:

The following notifiable ingredients have a threshold according to the notice of the limit values for substances and materials No 1134/2011:

Silver, powder, dust and soluble compounds calculated as Ag	0,01 mg/m <sup>3</sup> (EU limit value)
Tin compounds, inorganic calculated as Sn	2 mg/m <sup>3</sup> (EU limit value)

Compliance with limit values can be checked by occupational hygiene measurements.

**DNEL:** No CSR.

**PNEC:** No CSR.

### Exposure control:

Appropriate measures for exposure control:  
Ensure good ventilation.

### Personal protective equipment:

Inhalation: In case of inadequate ventilation: Use half mask EN140 with replaceable dust filter P2 R according to EN 143 The filters have a limited life (to be replaced). Read the instruction.

Skin: Suitable for use in soldering: Leather gloves.

Eyes: Wear Safety goggles at risk of product entering the eyes.

Measures to reduce environmental exposure:

Any residues and waste from production, must be collected and disposed of as mentioned in para. 13  
Treatment and discharge of waste water shall be in accordance with local regulations.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties:

Appearance: Silver gray material	Vapour pressure: -
Odour: -	Vapor Density: -
Odour threshold: -	Density: -
pH:	Solubility in water: Insoluble
Melting point/freezingpoint: -	Partition coefficient n-octanol/water: -
Initial boiling point and boiling range: -	Auto-ignition temperature: -
Flash point: -	Decomposition temperature: -
Evaporation rate: -	Viscosity: -
Flammability: -	Explosive properties: -
Upper / lower flammability or explosive limits vol.%: -	Oxidizing properties: -
Other information: -	

-: Means no data or not applicable

## 10. Stability and reactivity

### Reactivity:

Stable under normal handling to the melting point. Heat may create toxic gases. Avoid contact with acids, alkaline materials and oxidizing agents.

### Chemical stability:

Stable under recommended storage conditions.

### Possibility of hazardous reactions:

Stable under normal conditions.

### Conditions to avoid:

None known.

### Materials to avoid:

None known.

### Farlige nedbrydningsprodukter:

Decomposition products at fire can be; monoxide, carbon dioxide, smoke, metal oxides, etc.

## 11. Toxicological information

### Information on toxicological effects:

Hazard class	Data	Test	Data Source
Akut toksicitet: Inhalation Dermal Oral	<b>Tin:</b> LC <sub>50</sub> (rat):> 4,75 mg/l/4h LD <sub>50</sub> (rabbit) > 2000 mg/kg LD <sub>50</sub> (rat) >2000 mg/kg	OECD 403 OECD 402 EU Method B.1	ECHA ECHA ECHA
Corrosion/irritation:	Skin (rabbit): Not irritating Eye (rabbit): Not irritating	OECD 404 OECD 405	ECHA ECHA
Sensitization	not sensitizing	-	ECHA
CMR:	Carcinogenic effects: No significant evidence of a carcinogenic effect seen Mutagenicity: Negative in tests Fertility toxicity: NOEL:> 1000 mg/kg bw/day Embryo damaging effects: NOEL:> 1000 mg/kg bw/day	- OECD 471 OECD 421 OECD 421	ECHA ECHA ECHA
Akut toksicitet: Inhalation Dermal Oral	<b>Silver:</b> LC50 (rat): No data LD50 (rabbit): No data LD50 (rat) = 2168 mg/kg	- - -	- - ECHA
Corrosion/irritation:	Skin (rabbit): Not irritating Eye (rabbit): Not irritating	OECD 404 OECD 405	ECHA ECHA
Sensitization	not sensitizing	-	ECHA
CMR:	Carcinogenic effects: No significant evidence of a carcinogenic effect seen Mutagenicity: Negative in tests Fertility toxicity: No data available Embryo damaging effects: NOAEL (mat):> 10 mg / kg bw / day NOAEL (devel.):> 100 mg / kg bw / day	- OECD 487 - OECD 414	ECHA ECHA - ECHA

Likely routes of exposure: Skin, lungs and gastrointestinal tract.

### Symptoms:

#### Inhalation:

Vapours from molten product is irritating to the respiratory system and causes a cough, headache, fever and chest pain at high concentrations.

#### Skin:

This product may cause irritation at contact with skin.

## 11. Toxicological information

### Eyes:

Vapours from molten product may cause irritation to the eyes.

### Ingestion:

Ingestion may cause nausea, discomfort and vomiting

### Long-term effects:

No known

## 12. Ecological information

### Toxicity:

Aquatic	Data	Test (media)	Data Source
	<b>Tin:</b>		
Fish	LC <sub>50</sub> : No data available	-	-
Crustaceans	EC <sub>50</sub> : No data available	-	-
Algae	EC <sub>50</sub> No data available	-	-
	<b>Silver:</b>		
Fish	LC <sub>50</sub> (Pimephales promelas, 96h): 1,2 µg/L	-	ECHA
Crustaceans	LC <sub>50</sub> (Daphnia magna, 48h) = 0,22 µg/l	-	ECHA
Algae	EC <sub>10</sub> (Chlamydomonas reinhardtii, 24h) = 0,54 µg/l	-	ECHA

Silver is highly toxic to organisms living in water and can cause long-term adverse effects in the aquatic environment according to Danish Environment Ministry criteria.

This product is highly toxic to organisms living in water and can cause long-term adverse effects in the aquatic environment according to Danish Environment Ministry criteria.

### Persistence and degradability:

No data available.

### Bioaccumulative potential:

No data available.

### Mobility in soil:

No data available.

### Results of PBT and vPvB assessment:

Components are not PBT / vPvB according to the criteria in Reach Annex XIII.

### Other adverse effects:

None known.

## 13. Disposal

### Waste treatment methods:

The product must be considered as hazardous waste. Use the municipal collection and removal system.

### Chemical Group:

X

### Waste fraction:

05.99

### EAK code:

12 01 04

## 14. Transport information

This product is considered hazardous for transport.

**UN-number:** 3077

**UN proper shipping name:**

Environmentally hazardous substance, N.O.S.

**Transport hazard class (es):** 9

**Emballagegruppe:** III

**Environmental hazards:** -

**Special precautions for user:-**

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** -

## 15. Regulatory information

**Regulations / legislation specific for the substance or mixture with respect to safety, health and environment:**

None.

In addition, subject to the following regulations: -

**Chemical Safety assessment:**

No CSA.

## 16. Other information

**Hazard Phrases referred to under sections 2, 3 and 16:**

R50-53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

H400: Very toxic to aquatic life

H410: Very toxic to aquatic life with long lasting effects

**Abbreviations:**

At = The Danish Working Environment Authority ( Arbejdstilsynets) threshold list.

BOD: Biochemical oxygen demand

CMR = Carcinogenicity, mutagenicity and reproductive toxicity

COD: Chemical oxygen demand

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DNEL = Derived No-Effect level

EC<sub>50</sub> = Effect Concentration 50%

K og S = Kemikalier og Sikkerhed, Nyt Teknisk Forlag

LC<sub>50</sub> = Lethal Concentration 50%

LD<sub>50</sub> = Lethal Dose 50%

OECD: Organisation for Economic Co-operation and Development

PBT= Persistent, Bioaccumulative, Toxic

PNEC = Predicted No-Effect Concentration

vPvB = very Persistent, very Bioaccumulative

**Litteratur:**

ECHA = European Chemical Agency

IUCLID = International Uniform Chemical Information Database

RTECS = Registry of Toxic Effects of Chemical Substances

1272/2008 = European Parliament and Council Regulation (EF) no. 1272/2008

**Advice on training/instruction:**

The product should only be used by persons well instructed in the proper work procedure and familiar with the contents of this safety data sheet.

## 16. Other information

### Further information:

The product has been classified according to the CLP with Aquatic Chronic 1; H410.  
Molten product can cause severe burns on contact with skin and eyes. The product is hazardous.

### Labelling according to CLP (1272/2008)

Very toxic to aquatic life with long lasting effects (H410)

Avoid release to the environment (P273)

Collect spillage (P391)

Dispose of contents/container in accordance with national regulations (P501)



Warning

The safety data sheet is prepared according to REACH Regulation (EC) No 1907/2006.  
The safety data sheet is updated. Latest version: 11.3.2010.

Changes since the previous version: 1-16.

Prepared by: Eurofins Product Testing A/S, Smedeskovvej 38, 8464 Galten, tlf. 70 22 42 76, fax 70 22 42 75