

**SAFETY DATA SHEET**  
according to Regulation (EC) No. 1907/2006

**CP%+\$ v&' RS ) \* +!, %&**  
**RS REACH revision date 01/01/12**

Revision Date: 30.11.2010

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

**Product Information**

Catalogue No: RS 567-812  
Product name: RS Tin Plating Crystals  
Use of the Substance/Mixture: Chemical production,  
Company: RS Components Ltd, Birchington Road, Corby, Northants, NN17 9RS  
Emergency telephone: +44 (0) 1536 402888 (8am-8pm) Fax: +44(0)1536 401588  
email: technical.help@rs-components.com

**2. Hazards identification**

**GHS Classification**

Acute toxicity, Category 4, Oral H302: Harmful if swallowed.  
Carcinogenicity, Category 2 H351: Suspected of causing cancer.  
Reproductive toxicity, Category 2 H361d: Suspected of damaging the unborn child.  
Chronic aquatic toxicity, Category 2 H411: Toxic to aquatic life with long lasting effects.

**EC Classification**

Carc.Cat.3; R40

Repr.Cat.3; R63

Xn; R22

N; R51/53

For the full text of the R-phrases mentioned in this Section, see Section 16.

**3. Composition/information on ingredients : Thiourea (27%)**

Formula	H <sub>2</sub> NCSNH <sub>2</sub>	CH <sub>4</sub> N <sub>2</sub> S (Hill)
CAS-No.	62-56-6	
Index-No.	612-082-00-0	
EC-No.	200-543-5	
Molar mass	76,12 g/mol	

**4. First aid measures**

After inhalation: fresh air. Consult doctor if feeling unwell.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water.

After swallowing: immediately make victim drink water (two glasses at the most). Consult a physician.

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## 5. Fire-fighting measures

### *Suitable extinguishing media*

Water, Carbon dioxide (CO<sub>2</sub>), Foam, Dry powder

### *Specific hazards during fire fighting*

Combustible material

Development of hazardous combustion gases or vapours possible in the event of fire.

Fire may cause evolution of:

Sulphur oxides, nitrogen oxides

### *Special protective equipment for fire-fighters*

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

### *Further information*

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## 6. Accidental release measures

### *Personal precautions*

Avoid generation of dusts; do not inhale dusts. Avoid substance contact. Ensure adequate ventilation.

### *Environmental precautions*

Do not empty into drains.

### *Methods for cleaning up*

Take up dry. Forward for disposal. Clean up affected area. Avoid generation of dusts.

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## 7. Handling and storage

### **Handling**

#### *Advice on safe handling*

Work under hood. Do not inhale substance.

Observe label precautions.

### **Storage**

#### *Further information on storage conditions*

Tightly closed. Dry.

Store at +15°C to +25°C.

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## 8. Exposure controls/personal protection

### **Personal protective equipment**

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

#### *Respiratory protection*

required when dusts are generated.

Recommended Filter type: Filter B-(P3)

*Hand protection*

full contact:

Glove material: Nitrile rubber  
Glove thickness: 0,11 mm  
Break through time: > 480 min

splash contact:

Glove material: Nitrile rubber  
Glove thickness: 0,11 mm  
Break through time: > 480 min

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example. KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves

*Eye protection*

Safety glasses

*Protective measures*

Protective suit

*Hygiene measures*

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

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**9. Physical and chemical properties**

Form	solid
Colour	colourless
Odour	odourless
pH	6 - 8 at 50 g/l 20 °C
Viscosity, dynamic	no data available
Melting point	174 - 179 °C
Boiling point/boiling range	not applicable, (decomposition)
Ignition temperature	440 °C Dust
Flash point	not applicable
Oxidizing properties	no data available

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Flammability	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Vapour pressure	at 20 °C not applicable
Relative vapour density	no data available
Density	1,405 g/cm <sup>3</sup> at 20 °C
Bulk density	640 kg/m <sup>3</sup>
Solubility/qualitative	no data available
Water solubility	137 g/l at 20 °C
Partition coefficient: n-octanol/water	log Pow: -0,92 (20 °C) Method: OECD Test Guideline 107 No bioaccumulation is to be expected (log Pow <1).
Evaporation rate	no data available

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## 10. Stability and reactivity

### *Conditions to avoid*

Strong heating (decomposition).

### *Materials to avoid*

Violent reactions possible with:

Oxidizing agents, acryl aldehyde, Nitric acid, hydrogen peroxide

### *Hazardous decomposition products*

in the event of fire: See chapter 5.

### *Further information*

The following applies in general to flammable organic substances and preparations: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

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## 11. Toxicological information

### *Acute oral toxicity*

LD50 rat

Dose: 1.750 mg/kg

(External MSDS)

Symptoms: Nausea, Vomiting, Diarrhoea, Stomach/intestinal disorders

### *Acute inhalation toxicity*

Symptoms: Possible damages:, May cause irritation of respiratory tract.

*Acute dermal toxicity*

LD50 rabbit  
Dose: > 2.800 mg/kg  
(External MSDS)

*Skin irritation*

rabbit  
Result: No irritation  
Method: OECD Test Guideline 404

*Eye irritation*

rabbit  
Result: slight irritation  
Method: OECD Test Guideline 405

*Sensitisation*

Sensitization possible in predisposed persons.

*Genotoxicity in vitro*

Ames test  
Result: negative  
(External MSDS)

*CMR effects*

Carcinogenicity:  
Suspected of causing cancer.  
Teratogenicity:  
Suspected of damaging the unborn child. Pregnant women must not be exposed to the product.

*Further information*

Systemic effects:  
Changes in the blood count  
Damage of:  
thyroid, Bone marrow  
Further data:  
Handle in accordance with good industrial hygiene and safety practice.

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## 12. Ecological information

### Ecotoxicity

*Toxicity to fish*

LC50  
Species: Danio rerio (zebra fish)  
Dose: 10.000 mg/l  
Exposure time: 96 h  
(External MSDS)

*Toxicity to daphnia and other aquatic invertebrates.*

EC50  
Species: Daphnia magna (Water flea)  
Dose: 35 mg/l  
Exposure time: 48 h  
(IUCLID)

*Toxicity to algae*

IC50  
Species: Desmodesmus subspicatus (green algae)  
Dose: 3,8 - 10 mg/l  
Exposure time: 72 h  
(IUCLID)

*Toxicity to bacteria*

EC10  
Species: Pseudomonas putida  
Dose: 1.265 mg/l  
Exposure time: 18 h  
(IUCLID)

**Persistence and degradability**

*Biodegradability*

Result: Not readily biodegradable.  
0 %

Exposure time: 34 d  
Method: OECD Test Guideline 301C

*Biochemical Oxygen Demand (BOD)*

13 mg/g (5 d)  
(IUCLID)

*Partition coefficient: n-octanol/water*

log Pow: -0,92 (20 °C)  
Method: OECD Test Guideline 107  
No bioaccumulation is to be expected (log Pow <1).

*Additional ecological information*

Do not allow to enter waters, waste water, or soil!

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**13. Disposal considerations**

*Product*

Chemicals must be disposed of in compliance with the respective national regulations.

*Packaging*

Packaging must be disposed of in compliance with the country-specific regulations

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**14. Transport information**

**ADR/RID**

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (THIOUREA), 9, III

**IATA**

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (THIOUREA), 9, III

**IMDG**

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (THIOUREA), 9, III

||EmS F-A S-F

## 15. Regulatory information

### GHS-Labeling

#### Hazard pictograms



Signal word  
Warning

#### Hazard statements

H302: Harmful if swallowed.  
H351: Suspected of causing cancer.  
H361d: Suspected of damaging the unborn child.  
H411: Toxic to aquatic life with long lasting effects.

#### Precautionary statements

P273: Avoid release to the environment.  
P281: Use personal protective equipment as required.  
P308 + P313: IF exposed or concerned: Get medical advice/attention.

### Reduced labelling (≤125 ml)

#### Hazard pictograms



Signal word  
Warning

#### Hazard statements

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Index-No. 612-082-00-0

### Labelling according to EC Directives

Symbol(s):	Xn N	Harmful Dangerous for the environment
R-phrase(s):	22-40-51/53-63	Harmful if swallowed. Limited evidence of a carcinogenic effect. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child.
S-phrase(s):	36/37-61	Wear suitable protective clothing and gloves. Avoid release to the environment. Refer to special instructions/ Safety data sheets.
EC-No.	200-543-5	EC Label

Safety Data Sheet  
according to Regulation (EC) No. 1907/2006

Catalogue No.: 567-812

Product name: RS Tin Plating Crystals

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**Reduced labelling (≤125 ml)**

Symbol(s): Xn

Harmful

N

Dangerous for the environment

R-phrase(s): 22-40-63

Harmful if swallowed. Limited evidence of a carcinogenic effect.

Possible risk of harm to the unborn child.

S-phrase(s): 36/37

Wear suitable protective clothing and gloves.

**National legislation**

Storage class VCI: 10 - 13 Other liquids and solids

Major Accident Hazard Legislation: 96/82/EC Update: 2003  
Dangerous for the environment

9b

Quantity 1: 200 t

Quantity 2: 500 t

Other regulations: Take note of Dir 94/33/EC on the protection of young people at work. Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.

**16. Other information**

**Full text of R-phrases referred to under sections 2 and 3**

R22 Harmful if swallowed.

R40 Limited evidence of a carcinogenic effect.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R63 Possible risk of harm to the unborn child.

Regional representation: This information is given on the authorised Safety Data Sheet for your country.

*The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.*