



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

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HMP 362 5C

sds no. : 175670

V006.0

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

#### 1.1. Product identifier

HMP 362 5C

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

Intended use:

Solder Wire

#### 1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA

Henkelstr. 67

40191 Düsseldorf

Germany

Phone: +49 (211) 797-0

ua-productsafety.uk@uk.henkel.com

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification (DPD):

|| Sensitizing

|| R43 May cause sensitisation by skin contact.

#### 2.2. Label elements

**Label elements (DPD):****Xi - Irritant****Risk phrases:****R43 May cause sensitisation by skin contact.****Safety phrases:****S24 Avoid contact with skin.**  
**S37 Wear suitable gloves.**  
**S23 Do not breathe fumes.****Contains:**

Rosin

**2.3. Other hazards**

Flux fumes emitted during reflow will irritate the nose and throat and may cause an asthmatic type reaction.  
Regulations forbid the use of lead solder in any private or public drinking water supply system.

**SECTION 3: Composition/information on ingredients****Declaration of the ingredients according to CLP (EC) No 1272/2008:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Lead 7439-92-1	231-100-4 01-2119513221-59	>= 80 - < 100 %	No data available.
Tin 7440-31-5	231-141-8 01-2119486474-28	>= 1 - < 5 %	
Rosin 8050-09-7	232-475-7	>= 1 - < 5 %	Skin sensitizer 1 H317
Silver 7440-22-4	231-131-3	>= 1 - < 5 %	

For full text of the H - statements and other abbreviations see section 16 "Other information".  
Substances without classification may have community workplace exposure limits available.

**Declaration of ingredients according to DPD (EC) No 1999/45:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Lead 7439-92-1	231-100-4 01-2119513221-59	>= 80 - < 100 %	
Tin 7440-31-5	231-141-8 01-2119486474-28	>= 1 - < 5 %	
Rosin 8050-09-7	232-475-7	>= 1 - < 5 %	R43
Silver 7440-22-4	231-131-3	>= 1 - < 5 %	

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.  
Substances without classification may have community workplace exposure limits available.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

#### Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

#### Eye contact:

Flush eyes with plenty of water for at least 5 minutes. If irritation persists seek medical attention.

#### Ingestion:

Do not induce vomiting.

Seek medical advice.

### 4.2. Most important symptoms and effects, both acute and delayed

Flux fumes may irritate the nose, throat and lungs and may after prolonged/repeated exposure give an allergic reaction (asthma).

SKIN: Rash, Urticaria.

### 4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media:

Carbon dioxide, foam, powder

#### Extinguishing media which must not be used for safety reasons:

Do not use water on fires where molten metal is present.

### 5.2. Special hazards arising from the substance or mixture

High temperatures may produce heavy metal dust, fumes or vapours.

The flux medium will give rise to irritating fumes.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

### 6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

### 6.3. Methods and material for containment and cleaning up

Scrape up spilled material and place in a closed container for disposal.

### 6.4. Reference to other sections

See advice in chapter 8

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

Extraction is necessary to remove fumes evolved during reflow.  
When using do not eat, drink or smoke.  
Wash hands before breaks and immediately after handling the product.  
Avoid breathing fumes given out during soldering.  
See advice in chapter 8

**Hygiene measures:**

Good industrial hygiene practices should be observed.  
Do not eat, drink or smoke while working.  
After handling solder wash hands with soap and water before eating, drinking or smoking.

**7.2. Conditions for safe storage, including any incompatibilities**

Ensure good ventilation/extraction.  
Store in a cool, dry place.

**7.3. Specific end use(s)**

Solder Wire

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

Valid for  
Great Britain

Ingredient	ppm	mg/m <sup>3</sup>	Type	Category	Remarks
INORGANIC LEAD AND ITS COMPOUNDS 7439-92-1		0,15	Time Weighted Average (TWA):		EU_OEL
LEAD AND ITS IONIC COMPOUNDS 7439-92-1			Biological Limit Value:		EU_OEL_II
LEAD AND LEAD COMPOUNDS, OTHER THAN LEAD ALKYL (AS PB) 7439-92-1		0,15	Time Weighted Average (TWA):		EH40 WEL
TIN (INORGANIC COMPOUNDS AS SN) 7440-31-5		2	Time Weighted Average (TWA):	Indicative	ECTLV
ROSIN-BASED SOLDER FLUX FUME 8050-09-7		0,05	Time Weighted Average (TWA):		EH40 WEL
ROSIN-BASED SOLDER FLUX FUME 8050-09-7		0,15	Short Term Exposure Limit (STEL):		EH40 WEL
SILVER (METALLIC) 7440-22-4		0,1	Time Weighted Average (TWA):		EH40 WEL
SILVER, METALLIC 7440-22-4		0,1	Time Weighted Average (TWA):	Indicative	ECTLV

Colophony (Rosin) and derivatives: Rosin-based flux fume as total resin acids.

**8.2. Exposure controls:****Engineering controls:**

Extraction is necessary to remove fumes evolved during reflow.  
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.  
Ensure good ventilation/extraction.

**Respiratory protection:**

Ensure adequate ventilation.  
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area  
In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter.  
This recommendation should be matched to local conditions.

**Hand protection:**

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.  
The use of chemical resistant gloves such as Nitrile are recommended.

**Eye protection:**

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

**Skin protection:**

Wear suitable protective clothing.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	solid
Odor	grey None
pH	not applicable
Initial boiling point	Not determined
Flash point	> 100 °C (> 212 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure	not applicable
Density	11,1000 g/cm3
( )	
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative)	Insoluble
Solidification temperature	No data available / Not applicable
Melting point	Solder alloy
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	Heavier than air
Oxidising properties	No data available / Not applicable

**9.2. Other information**

No data available / Not applicable

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Solder alloy will react with concentrated nitric acid to produce toxic fumes of nitrogen oxides.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

See section reactivity

**10.4. Conditions to avoid**

No decomposition if stored and applied as directed.

**10.5. Incompatible materials**

None if used properly.

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to release of irritating gases and vapors.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****General toxicological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**Oral toxicity:**

This material is considered to have low toxicity if swallowed.

**Inhalative toxicity:**

Fumes evolved at soldering temperatures will irritate the nose, throat and lungs. Prolonged or repeated exposure to flux fumes may result in sensitisation in sensitive workers.

**Dermal toxicity:**

May cause sensitization by skin contact.

**Skin irritation:**

Fumes emitted during soldering may irritate the skin.

**Eye irritation:**

Fumes emitted during soldering may irritate the eyes.

**Acute toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Silver 7440-22-4	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

**Skin corrosion/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Silver 7440-22-4	slightly irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

**Serious eye damage/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Silver 7440-22-4	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

**SECTION 12: Ecological information****General ecological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**Ecotoxicity:**

May cause long-term adverse effects in the aquatic environment.

**Mobility:**

The product is insoluble and sinks in water.

**Bioaccumulative potential:**

Octanol/Water distribution coefficient: Not applicable

**12.1. Toxicity**

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Rosin 8050-09-7	LC50	> 1.000 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Rosin 8050-09-7	EC50	911 mg/l	Daphnia	48 h	Daphnia magna	
Rosin 8050-09-7	EC50	> 100 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	

**12.2. Persistence and degradability**

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Rosin 8050-09-7		aerobic	36 - 46 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Product disposal:

Wherever possible unwanted solder alloy should be recycled for recovery of metal.  
Otherwise dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

Dispose of as unused product.

Waste code

16 03 03 - inorganic wastes containing dangerous substances

**SECTION 14: Transport information****General information:**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

VOC content < 5,0 %

**National regulations/information (Great Britain):**

Remarks

The Health & Safety at Work Act 1974.  
The Control of Substances Hazardous to Health Regulations. L5:General  
Approved Code of Practice to the COSHH Regulations. HS(G)97:A Step by Step  
Guide to the COSHH Regulations. HS(G)193: COSHH essentials: Easy steps to  
control chemicals.  
IND (G)248L: Solder fume and you. IND(G)249L: Controlling health risks from  
rosin (colophony) based solder fluxes.

## SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

R43 May cause sensitisation by skin contact.

H317 May cause an allergic skin reaction.

### Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and its subsequent amendments, and Commission Directive 1999/45/EC.