

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

### Product identifier

Trade name : Lead-free solder wire

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

Premier Farnell  
150 Armley Road  
Leeds LS12 2QQ  
Tel. : +44 (0) 8701 202530

### Emergency telephone number

+44 1865 407333

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification according to regulation (EC) 1272/2008:**

#### Additional information:

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

#### Label elements

Labeling according to Regulation (EC) No 1272/2008:

The product is labelled according to CLP Regulation.

#### Hazard pictograms:



GHS07

#### Signal word:

Warning

#### Hazard-determining components of labelling:

Rosin.

#### Hazard statements:

H317 : May cause an allergic skin reaction

#### Precautionary statement:

P261 : Avoid breathing dust.  
P280 : Wear protective gloves.  
P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.  
P333 + P313 : If skin irritation or rash occurs: Get medical advice/attention.  
P362 + P364 : Take off contaminated clothing and wash it before reuse.  
P501 : Dispose of contents/container in accordance with local/regional/national/international regulation.  
Supplemental label elements : Not applicable

#### Other hazards

None of the ingredients ( $\geq 0.1\%$ ) meets the criteria for PBT/vPvB in accordance with Annex XIII.

None of the ingredients ( $\geq 0.1\%$ ) is identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.

## SECTION 3: Composition/information on ingredients

### 3.1 Substance

Newark.com/multicomp-pro  
Farnell.com/multicomp-pro  
sg.element14.com/b/multicomp-pro

Not applicable

## 3.2 Mixtures

Description of the mixture:

Lead-free solder wire.

Ingredients:						
Substance	CAS No.	Index No.	EC No.	w/w, %	CLP Classification	SCL/M-factor/ATE
Tin	7440-31-5	-	231-141-8	97.3	None	-
Rosin	8050-09-7	650-015-00-7	232-475-7	2	Skin Sens. 1, H317	-
Copper	7440-50-8	-	231-159-6	0.7	None	-

Additional information : For full text of H-statements, see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice : Get medical attention if you feel unwell.  
After inhalation : Supply with fresh air. Get medical attention if you feel unwell.  
After skin contact : Wash with plenty of water.  
If skin irritation or rash occurs : Get medical advice/attention.  
After eye contact : Rinse cautiously with water for several minutes.  
If eye irritation occurs : Get medical advice/attention.  
After swallowing : Rinse mouth.  
Call a POISON CENTER/doctor if you feel unwell.

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

Acute and delayed effects are as indicated in sections 2 and 11.

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

Treat according to symptom, there is not known specific medicine.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

Suitable extinguishing agents : Not flammable solid, use the suitable extinguishing agent surrounding condition.  
Unsuitable extinguishing media : No known unsuitable extinguishing media.

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

May form allergic dust/fume in air under fire.

### 5.3 Advice for firefighters

Protective equipment : Wear self-contained breathing apparatus for firefighting.

## SECTION 6: Accidental release measures

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

#### 6.1.1 For non-emergency personnel

Protective equipment : Protective gloves/respiration protection.  
Emergency procedures : Ensure adequate ventilation.  
Avoid breathing dust.  
Avoid contact with skin.

## 6.1.2 For emergency responders

Personal protective equipment : Protective gloves/respiration protection.

## 6.2 Environmental precautions:

Prevent further leakage or spillage if safe to do so.

Prevent spillage from entering drains, sewer, basement or confined areas.

If the spillage contaminates rivers, lakes or drains inform respective authorities.

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

Sweep up and shovel into suitable containers for disposal.

Dispose contaminated material as waste according to section 13.

## 6.4 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.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling:

Read carefully and follow all instructions.

Ensure adequate ventilation at workplace.

Wear protective gloves.

Avoid breathing dust.

Avoid contact with skin.

Information about fire and

explosion protection

: Normal measures for preventive fire protection.

### 7.2 Conditions for safe storage, including any non-compatibility

Requirements to be met by

storerooms and receptacles

: Store in a cool and well-ventilated place.

Information about storage in one

common storage facility

: Keep away from foodstuffs.

Further information about storage conditions : Store locked up.

Storage class

: 13.

### 7.3 Specific end use(s):

See section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

Country	Limit value - Eight hours	Limit value - Short term
8050-09-7 Rosin		
Latvia	4 mg/m <sup>3</sup>	-
United Kingdom	0.05 mg/m <sup>3</sup>	0.15 mg/m <sup>3</sup>
7440-50-8 Copper, dusts and mists		
Austria	1 mg/m <sup>3</sup> Inhalable aerosol	-
Belgium	1 mg/m <sup>3</sup>	-
Denmark	1 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>

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**multicomp** PRO

France	1 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>
Germany (DFG)	0.01 mg/m <sup>3</sup> Respirable fraction	0.02 mg/m <sup>3</sup> Respirable fraction; 15 minutes average value
Hungary	1 mg/m <sup>3</sup>	4 mg/m <sup>3</sup>
Ireland	1 mg/m <sup>3</sup>	-
Poland	1 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>
Romania	0.5 mg/m <sup>3</sup>	1.5 mg/m <sup>3</sup> 15 minutes average value
Spain	1 mg/m <sup>3</sup>	-
Sweden	1 mg/m <sup>3</sup>	-
United Kingdom	1 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>

## DNELs:

DNEL type		DNEL worker value	DNEL consumer value
8050-09-7 Rosin			
Systemic effects	Long-term, dermal exposure	2.131 mg/kg bw/day	1.065 mg/kg bw/day
	Long-term, oral exposure	-	1.065 mg/kg bw/day
7440-50-8 Copper			
Local effects	Long-term, inhalation exposure	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
	Acute /short term, inhalation exposure	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Systemic effects	Long-term, dermal exposure	137 mg/kg bw/day	137 mg/kg bw/day
	Acute /short term, dermal exposure	273 mg/kg bw/day	273 mg/kg bw/day
	Long-term, oral exposure	-	41 µg/kg bw/day

## PNECs:

PNEC type	Value
8050-09-7 Rosin	
Freshwater	1.6 µg/L
Intermittent releases (freshwater)	16 µg/L
Marine water	160 ng/L
Sewage treatment plant (STP)	1 g/L
Sediment (freshwater)	7 µg/kg sediment dw
Sediment (marine water)	700 ng/kg sediment dw
7440-50-8 Copper	
Freshwater	7.8 µg/L
Marine water	5.2 µg/L
Sewage treatment plant	230 µg/L
Sediment, freshwater	87 mg/kg sediment dw
Sediment, marine water	676 mg/kg sediment dw
Soil	65 mg/kg soil dw

Additional information : The lists valid during the marking were used as basis.

## 8.2 Exposure controls

Based on the composition shown in section 3, the following measures are suggested for occupational safety measure.

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice.  
Wash hands and face before breaks and at the end of work.  
Take off contaminated clothing and wash it before reuse.  
See section 7 for information about design of technical facilities.

## Personal protective equipment

Eye and face protection

:   
Safety glasses

Protective goggles with side-shields.

## Skin protection

Hand protection

:   
Protective gloves

Gloves made from butyl rubber Neoprene™ rubber, nitrile rubber (thickness > 0.11mm; breakthrough times up to 480 minutes).

## Other skin protection:



Face protection



Safety boots



Safety overalls

Face shield, gauntlets, boots, bodysuit are recommended.

Respiration protection

:   
Respiratory equipment

Use positive pressure breathing mask if concentrations in air could exceed occupational exposure standard.

Thermal hazards

: The gauntlets, boots, bodysuit and other personal protective equipment must be flame retardant and no heat-conducting.

Environmental exposure controls

: Control measures must be made in accordance with Community environmental protection legislation.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state : Solid  
Colour : Silver  
Odor & Odor threshold : Odorless  
Melting point/freezing point  
(or softening point/range) : 232°C  
Boiling point or initial boiling point  
and boiling range : 2260°C  
Flammability : Not flammable solid  
Lower and upper explosion limit : Not applicable  
Flash point : Not applicable  
Auto-ignition temperature : Not determined  
Decomposition temperature : Not applicable  
pH : Not determined  
Kinematic viscosity (mm<sup>2</sup>/s) : Not applicable  
Solubility : Insoluble in water  
Partition coefficient  
n-octanol/water (log value) : Not applicable  
Vapor pressure : Not determined  
Density and/or relative density : Not determined

Relative vapor density : Not applicable  
Particle characteristics : Not determined

## 9.2 Other information

### 9.2.1 Information with regard to physical hazard classes:

Explosives : Not applicable  
Flammable gases : Not applicable  
Aerosols : Not applicable  
Oxidising gases : Not applicable  
Gases under pressure : Not applicable  
Flammable liquids : Not applicable  
Flammable solids : Not applicable  
Self-reactive substances and mixtures : Not applicable  
Pyrophoric liquids : Not applicable  
Pyrophoric solids : Not applicable  
Self-heating substances and mixtures : Not applicable  
Substances and mixtures, which emit flammable gases in contact with water : Not applicable  
Oxidizing liquids : Not applicable  
Oxidizing solid : Not applicable  
Organic peroxides : Not applicable  
Corrosive to metals : Not applicable  
Desensitised explosives : Not applicable

### 9.2.2 Other safety characteristics

Mechanical sensitivity : Not applicable  
Self-accelerating polymerisation temperature : Not applicable  
Formation of explosible dust/air mixtures : Not applicable  
Acid/alkaline reserve : Not applicable  
Evaporation rate : Not applicable  
Miscibility : Not applicable  
Conductivity : Not applicable  
Corrosiveness : Not applicable  
Gas group : Not applicable  
Redox potential : Not applicable  
Radical formation potential : Not applicable  
Photocatalytic properties : Not applicable  
Other physical and chemical parameters : Not determined

## SECTION 10: Stability and reactivity

### 10.1 Reactivity:

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2 Chemical stability:

Under storage at normal ambient temperatures, the product is stable.

### 10.3 Possibility of hazardous reactions:

No known hazardous reaction.

### 10.4 Conditions to avoid:

High temperature and high humidity.

## 10.5 Incompatible materials:

Strong oxidizing agent and acids.

## 10.6 Hazardous decomposition products:

Does not decompose when used for intended uses.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity	: Based on available data, the classification criteria are not met.
Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eyes damage/ irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties:

None of the ingredients ( $\geq 0.1\%$ ) is considered to have endocrine-disrupting properties with respect to humans, as none of them meet the criteria set out in section A of Regulation (EU) No 2017/2100.

#### 11.2.2 Other information:

No known other relevant information on adverse health effects.

## SECTION 12: Ecological information

### 12.1 Toxicity:

#### LC50/EC50/NOEC values relevant for classification:

8050-09-7 Rosin	
Short-term toxicity to fish	LC50 (4 days) 1.7 - 5.4 mg/L
Short-term toxicity to aquatic invertebrates	LC50 (48 h) 1.6 mg/L NOEC (48 h) 625 µg/L
Toxicity to aquatic algae and cyanobacteria	EC50 (72 h) 16.6 - 39.6 mg/L NOEC (72 h) 6.25 mg/L
Toxicity to microorganisms	EC50 (3 h) 10 g/L

### 12.2 Persistence and degradability:

8050-09-7	Rosin	Readily biodegradable in water
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### 12.3 Bio-accumulative potential:

8050-09-7	Rosin	Log Pow = 1.9 - 7.7
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### 12.4 Mobility in soil

No available data.

### 12.5 Results of PBT and vPvB assessment:

This mixture does not contain any substances ( $\geq 0.1\%$ ) that are assessed to be a PBT or a vPvB.

## 12.6 Endocrine disrupting properties:

None of the ingredients ( $\geq 0.1\%$ ) is considered to have endocrine-disrupting properties with respect to non-target organisms, as none of them meet the criteria set out in section B of Regulation (EU) No 2017/2100.

## 12.7 Other adverse effects:

No known other adverse effects.

## 12.8 Additional ecological information

### General notes:

WGK1 (German Regulation) (self-assessment): Low hazard to waters.

Do not allow large quantities of the product to reach ground water, water course or sewage system.

## SECTION 13: Disposal consideration

### 13.1 Waste treatment methods

Recommendation : Must not be disposed together with household garbage.

### 13.2 Un-cleaned packaging

Recommendation : Dispose of contents/container in according to the local/regional/national/international regulation.

## SECTION 14: Transport information

ADR/ADN/RID (2023 Edition) : This product is not subject to ADR/ADN/RID.

IATA-DGR (64th) : This product is not subject to IATA-DGR.

IMO/IMDG (40-20) : This product is not subject to IMO/IMDG code.

## SECTION 15: Regulatory information

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

MAK (German Maximum Workplace Concentration) : None of the ingredients is listed.

#### Directive 2012/18/EU

Named dangerous substances-ANNEX I : None of the ingredients is listed.

Seveso category : Not applicable

Qualifying quantity (tonnes) for the application of lower-tier requirements:

Not applicable

Qualifying quantity (tonnes) for the application of upper-tier requirements:

Not applicable

#### National regulations.

Water hazard class : WGK1 (German Regulation) (self-assessment): Low hazard to waters.

#### Other regulations, limitations and prohibitive regulations

#### SVHC Candidate list of REACH Regulation Annex XIV Authorization:

None of the ingredients is listed.

#### REACH Regulation Annex XVII Restriction:

None of the ingredients is listed.

#### REACH Regulation Annex XIV Authorization List:

None of the ingredients is listed.

### 15.2 Chemical safety assessment:

A Chemical Safe Assessment has not been carried out.



## SECTION 16: Other information

### 16.1 Indication of changes:

None.

### 16.2 Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

PBT: Persistent, Bio accumulative and Toxic

vPvB: very persistent and very bio accumulative

SVHC: Substance of Very High Concern

LC50: Lethal concentration, 50 percent

EC50: Concentration of maximal effect, 50 percent

NOEC: No observed effect concentration

Skin Sens. 1: Skin sensitization, hazard category 1

### 16.3 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]:

See section 2.1 (classification).

### 16.4 Relevant H- and EUH-phrases (number and full text):

H317 May cause an allergic skin reaction

Part Number
MP015407
MP015408
MP015409
MP015410
MP015411
MP015412
MP015413
MP015414
MP015415

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