

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Lead Free Rosin Core Solder Wire

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Welding

1.3. Supplier

Learn to Solder Kits
2529 28th St
Sacramento, CA 95818
T 360 621-1256

1.4. Emergency telephone number

Emergency number : 360 621-1256 [M-F: 7 am to 5 pm] Pacific

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Tin	CAS-No.: 7440-31-5	95 – 100
Rosin, hydrogenated	CAS-No.: 65997-06-0	1 – 3
granulated copper; [particle length: from 0,9 mm to 6,0 mm; particle width: from 0,494 to 0,949 mm]	CAS-No.: 7440-50-8	0.1 – 1
Silver	CAS-No.: 7440-22-4	0.1 – 1

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The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets. This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Not considered a potential route of exposure in its original form. Remove person to fresh air and keep comfortable for breathing. In case of inhalation of fumes : Remove the victim into fresh air, In case of respiratory problems, consult a doctor/medical service.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Not considered a potential route of exposure in its original form.
First-aid measures after ingestion	: Not considered a potential route of exposure in its original form.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms	: Inhaling fumes released during welding can irritate the respiratory system, leading to symptoms such as coughing, wheezing, and shortness of breath.
Symptoms/effects after inhalation	: Acute exposure to tin fumes can lead to nausea, vomiting, and abdominal pain. Chronic exposure to tin fumes has been associated with more serious health problems, including lung damage, kidney problems, and possible cancer risks.
Symptoms/effects after skin contact	: Direct skin contact with tin or its compounds can cause irritation, rashes, and dermatitis.
Chronic symptoms	: Chronic exposure to tin fumes has been associated with more serious health problems, including lung damage, kidney problems, and possible cancer risks.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Adapt to the nature and extent of fire. Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Not listed.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Avoid breathing fume.
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6.2. Environmental precautions

Avoid release to the environment.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Inhaling fumes released during welding can irritate the respiratory system, leading to symptoms such as coughing, wheezing, and shortness of breath. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.
Incompatible materials : Strong acids. Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Lead Free Rosin Core Solder Wire	
No additional information available	
Tin (7440-31-5)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Tin and inorganic compounds, excluding Tin hydride and Indium tin oxide, as Sn
ACGIH OEL TWA	2 mg/m ³ (I - Inhalable particulate matter)
Remark (ACGIH)	Non fibrous = TLV® Basis: URT irr Fibrous (including whiskers) = TLV® Basis: Mesothelioma; cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Tin
OSHA PEL TWA [1]	2 mg/m ³ (inorganic compounds (except oxides) (as Sn)) 0.1 mg/m ³ (organic compounds (as Sn))
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
granulated copper; [particle length: from 0,9 mm to 6,0 mm; particle width: from 0,494 to 0,949 mm] (7440-50-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Copper, as Cu
ACGIH OEL TWA	0.2 mg/m ³ (Fume) 1 mg/m ³ (Dusts and mists)
Remark (ACGIH)	TLV® Basis: Irr; GI; metal fume fever
Regulatory reference	ACGIH 2023

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granulated copper; [particle length: from 0,9 mm to 6,0 mm; particle width: from 0,494 to 0,949 mm] (7440-50-8)	
USA - OSHA - Occupational Exposure Limits	
Local name	Copper
OSHA PEL TWA [1]	0.1 mg/m ³ (Fume (as Cu)) 1 mg/m ³ (Dusts and mists (as Cu))
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Silver (7440-22-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Silver
ACGIH OEL TWA	0.1 mg/m ³ (Metal, dust and fume) 0.01 mg/m ³ (Soluble compounds, as Ag)
Remark (ACGIH)	TLV® Basis: Argyria
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Silver, metal and soluble compounds (as Ag)
OSHA PEL TWA [1]	0.01 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Rosin, hydrogenated (65997-06-0)	
No additional information available	

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Wear respiratory protection.

Personal protective equipment symbol(s):



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Color	: Silver
Odor	: Odourless.
Odor threshold	: No data available
pH	: Not applicable
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: Water: Not fat-soluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: Not explosive.
Oxidizing properties	: Non oxidizing material.

9.2. Other information

No additional information available

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

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong acids. Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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Tin (7440-31-5)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LC50 Inhalation - Rat	> 4.75 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)

granulated copper; [particle length: from 0,9 mm to 6,0 mm; particle width: from 0,494 to 0,949 mm] (7440-50-8)	
LD50 oral rat	300 – 500 mg/kg Source: ECHA
LD50 dermal rat	> 2000 mg/kg Source: ECHA
LC50 Inhalation - Rat	> 5.11 mg/l Source: ECHA

Silver (7440-22-4)	
LC50 Inhalation - Rat	> 5.16 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)

Rosin, hydrogenated (65997-06-0)	
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))

Skin corrosion/irritation	: Not classified pH: Not applicable
Serious eye damage/irritation	: Not classified pH: Not applicable
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified

Silver (7440-22-4)	
LOAEL (animal/female, F0/P)	40 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:
NOAEL (animal/female, F0/P)	4 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Silver (7440-22-4)	
LOAEL (oral,rat,90 days)	125 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

Aspiration hazard	: Not classified
Viscosity, kinematic	: Not applicable
Potential Adverse human health effects and symptoms	: Inhaling fumes released during welding can irritate the respiratory system, leading to symptoms such as coughing, wheezing, and shortness of breath.
Symptoms/effects after inhalation	: Acute exposure to tin fumes can lead to nausea, vomiting, and abdominal pain. Chronic exposure to tin fumes has been associated with more serious health problems, including lung damage, kidney problems, and possible cancer risks.
Symptoms/effects after skin contact	: Direct skin contact with tin or its compounds can cause irritation, rashes, and dermatitis.
Chronic symptoms	: Chronic exposure to tin fumes has been associated with more serious health problems, including lung damage, kidney problems, and possible cancer risks.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Tin (7440-31-5)	
LC50 - Fish [1]	> 12.4 µg/l Test organisms (species): Pimephales promelas
Silver (7440-22-4)	
LC50 - Fish [1]	4.7 µg/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	89.4 µg/l Test organisms (species): Pimephales promelas
Rosin, hydrogenated (65997-06-0)	
LC50 - Fish [1]	5.4 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
LC50 - Fish [2]	5.4 mg/l Test organisms (species):

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

granulated copper; [particle length: from 0,9 mm to 6,0 mm; particle width: from 0,494 to 0,949 mm] (7440-50-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.57 Source: EPISUITE

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

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IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

granulated copper; [particle length: from 0,9 mm to 6,0 mm; particle width: from 0,494 to 0,949 mm] (7440-50-8)

CERCLA RQ	5000 lb
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Silver (7440-22-4)

CERCLA RQ	1000 lb
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15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Tin(7440-31-5)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

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Component	State or local regulations
granulated copper; [particle length: from 0,9 mm to 6,0 mm; particle width: from 0,494 to 0,949 mm](7440-50-8)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Silver(7440-22-4)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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ICSDS_SDS_USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.