Safety Data Sheet

according to WHMIS 2022 and HCS 2024

Date of issue 09/17/2026 Version number 4.00 Revision: 11/07/2025

* 1 Identification

· **Product identifier**

· **Trade name: 4870–4877**

· **Other Means of Identification:** Sn60Pb40 No Clean Solder Wire

· **Related Part Number:** 4870-18G, 4875-227G, 4875-454G, 4876-227G, 4877-227G

· **Application of the substance / the mixture** leaded solder wire

· **Uses advised against**

Do not use brazing soldering methods such as high temperature torch soldering or torch welding.

Do NOT use to make joints and fittings in private or public potable water supplies (prohibited by the Federal Hazardous Substance Act).
For industrial use only

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

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Manufacturer/Supplier:
MG Chemicals (Head Office)
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA
+(1) 800-340-0772
+(1) 905-331-1396
info@mgchemicals.com

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Distributor:
Masline
511 Clinton Ave S
Rochester, New York 14620
United States
+(1) 586-546-5373

· **Information department:** sds@mgchemicals.com

· **Emergency telephone number:**

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents)
USA or CANADA-Call 3E at +1-866-519-4752 or +1-760-476-3962 (Service access code: 335388)

For emergencies involving the transport of dangerous goods; 24/7 service
CANADA-Call CANUTEC collect at +1-613-996-6666 or *666 on cellular phones

2 Hazard identification

· **Classification of the substance or mixture**

Carcinogenicity – Category 2	H351 Suspected of causing cancer.
Reproductive Toxicity - Category 1A	H360 May damage fertility or the unborn child.
Reproductive Toxicity - Effects on or via Lactation	H362 May cause harm to breast-fed children.
Specific target organ toxicity (repeated exposure) – Category 1	H372 Causes damage to the central nervous system, the kidneys and the blood through prolonged or repeated exposure. Route of exposure: Oral, Inhalation.

· **Additional information:** The full text of the classification and labeling elements mentioned is given in Section 16.

· **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**

GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
lead

· **Hazard statements**
H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.
H362 May cause harm to breast-fed children.
H372 Causes damage to the central nervous system, the kidneys and the blood through prolonged or repeated exposure. Route of exposure: Oral, Inhalation.

· **Precautionary statements**
P102 Keep out of reach of children.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust or fumes.
P263 Avoid contact during pregnancy and while nursing.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves, protective clothing, and eye protection.
P308+P313 IF exposed or concerned: Get medical advice.
P405 Store locked up.
P501 Dispose of contents and container in accordance with local, regional, and national regulations.

· **Other hazards** Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.

3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**		
7440-31-5	tin	59% w/w
7439-92-1	lead	39% w/w
65997-05-9	Rosin, polymerized	2% w/w

· **Additional information:**
Based on available data for CAS: 65997-05-9, this substance is not classified as dangerous.

4 First-aid measures

· **Description of first aid measures**

· **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**
Remove person to fresh air and keep comfortable for breathing.
If feeling unwell: Call a POISON CENTRE or doctor.

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If exposed or concerned: Get medical advice or attention

· **After skin contact:**
Wash with plenty of water.
If skin irritation or rash occurs: Get medical advice or attention.

· **After eye contact:**
Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If symptoms persist consult doctor.

· **After swallowing:**
Rinse mouth.
Do NOT induce vomiting.
If symptoms persist consult doctor.
If exposed or concerned: Get medical advice or attention.

· **Information for doctor:** Treat symptomatically

· **Most important symptoms and effects, both acute and delayed** See section 11 for additional information.

· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents:**
In presence of molten metal, do NOT use water on fires.

· **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
Not flammable or combustible, but burns if involved in a fire. Produces irritating smoke of unknown toxicity in fires.
Prevent fire-fighting wash from entering waterway or sewer system.

· **Hazardous combustion products:**
Carbon Oxides (COx)
by-products of pyrolysis of abietic resin acids
Tin oxides (SnOx)
Lead oxides (PbOx)

· **Advice for firefighters**

· **Protective equipment:** Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Do not breath mists, vapors, sprays or fumes

· **Environmental precautions:** Do not allow to enter sewers or into surface or ground water.

· **Methods and material for containment and cleaning up:**
Collect waste in a sealable waste container.
Reuse molten material if it is not contaminated.

· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

7 Handling and storage

· **Precautions for safe handling**
Keep out of reach of children.
Obtain, read and follow all safety instructions before use.
To prevent the formation of exposure to lead vapors, do not use soldering methods that exceed 450 °C [842 °F].
Do not breathe fumes or dust.
Wear protective gloves and eye protection.
Wash hands thoroughly after handling.
Take off all contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace.
Do not eat, drink, or smoke when using this product.
Avoid contact during pregnancy and while nursing.
· **Information about protection against explosions and fires:** Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Keep in a dry and clean area, away from incompatible substances
· **Information about storage in one common storage facility:** Not required
· **Further information about storage conditions:** Keep receptacle tightly sealed.

· **Specific end use(s)** See section 1.2

* 8 Exposure controls/ Personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
7440-31-5 tin	
EL (Canada)	TWA: 2 mg/m³ metal
EV (Canada)	TWA: 2* 0.1** mg/m³ *metal, oxide, inorg. compds.;**org. compds.: Skin
PEL (USA)	TWA: 2 mg/m³ metal
REL (USA)	TWA: 2 mg/m³
TLV (USA)	TWA: 2* mg/m³ metal, *inh. particulate matter
7439-92-1 lead	
EV (Canada)	TWA: 0.05 mg/m³ as Pb, Skin (organic compounds)

· **Additional information:**
The lists that were valid during the creation were used as basis.
Refer to the national or regional occupational exposure limit regulation for abbreviations and acronyms.

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· **Exposure controls**
· **Appropriate engineering controls**
Soft soldering temperatures (<450 °C) are generally too low to generate significant amounts of metal vapors; however, metal oxide fumes and dust, or flux decomposition fumes can occur.
RECOMMENDATION: For frequent or prolonged soldering processes, use of a local exhaust system to avoid exposure to thermal decomposition products. For example, use fume cabinet, a hood on a flexible arm, or tip-mounted fume extraction system on the soldering iron.
Keep airborne concentrations below exposure limits.
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
· **Breathing equipment:**
If the product is heated or worker has a known allergic reaction, consider using a full mask with organic vapor cartridge or with an independent air supply.
For over-exposures up to 10 x OEL of mist, vapors, and spray, wear respirator such as a half-mask respirator with organic vapor cartridges.
Above 10 x OEL, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.
Advice should be sought from respiratory protection specialists.
· **Protection of hands:**

Protective gloves: EN374

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**

Safety glasses or tightly sealed goggles: EN 166

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **Physical state**	Solid
· **Form:**	Wire
· **Color:**	Silver Grey
· **Odor:**	Odorless
· **Odor threshold:**	Not available
· **Melting point/Melting range:**	183 °C (361.4 °F)
· **Boiling point/Boiling range:**	1,380 °C (34.580 °F)

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· **Flammability:**	Non flammable
· **Explosion limits:**	
· **Lower:**	Not applicable
· **Upper:**	Not applicable
· **Flash point:**	Not applicable
· **Auto igniting:**	Not determined
· **Viscosity:**	
· **Kinematic:**	Not applicable
· **Solubility in / Miscibility with**	
· **Water:**	Insoluble.
· **Vapor pressure at 970 °C (1,778 °F):**	1.3 hPa (1 mm Hg)
· **Relative density at 25 °C (77 °F):**	8.5
· **Vapor density (air=1):**	Not applicable
· **Particle characteristics**	Not determined

· **Other information**

· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Organic solvents:**	Not available
· **VOC content:**	0.000 %
· **Solids content:**	100.0 %

10 Stability and reactivity

· **Reactivity**
Polymerized rosin is oxidation resistant but may contains residual unmodified resin acids that can be auto-oxidize in contact with air and sunlight. Some slow auto-oxidation can also occur after long storage durations. The oxidation by-products may cause sensitization.
Tin may react violently in presence of disulfur dichloride and iodine bromide.

· **Chemical stability** Chemically stable at normal temperatures and pressures.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** Extreme temperatures above 450 °C [842 °F], such as those due to welding.

· **Incompatible materials:**
Oxidizing agents
Strong acids

· **Hazardous decomposition products:**
No dangerous decomposition products known.
Hazardous combustion products: see section 5.

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11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
7440-31-5 tin		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	>4.75 mg/L (rat)

· **Summary of effects and symptoms by route of exposure**

· **Eyes:**
redness
may cause mild irritation

· **Skin:** may cause mild irritation

· **Inhalation:**
cough
irritation of the respiratory tract
overexposure to dust or metal fumes may lead to pneumoconiosis or stanosis

· **Swallowed:**
abdominal pain
muscle cramps, joint pain, high blood pressure, headaches, and mood swings.

· **Delayed and immediate effects as well as chronic effects from short and long-term exposure**
Repeated or prolonged inhalation exposure to solder pyrolysis by-products may cause certain sensitive individuals to develop asthma and eczema symptoms.
Ingestion or inhalation have fertility, developmental, and lactation effects.
Prolonged and repeated exposure to lead may cause hemeatological effects, high blood pressure, and adverse central and peripheral nervous systems effects.
Symptoms of lead poisoning include metallic taste, colic, nausea, vomiting, muscle cramps, memory loss, and learning problems.

· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
7439-92-1	lead	2B

· **NTP (National Toxicology Program)**		
7439-92-1	lead	R

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**
Very toxic to aquatic life with long lasting effect.
Avoid release to the environment.
Collect spillage.

· **Persistence and degradability** No further relevant information available.

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

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· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable
· **vPvB:** Not applicable

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:** This material and its container must be disposed of as hazardous waste.

· **Uncleaned packagings:**
· **Recommendation:**
Containers may still present a chemical hazard or danger when empty.
Dispose of contents in accordance with all local, regional, national, and international regulations.
Where possible retain label warnings and SDS and observe all notices pertaining to the product.

14 Transport information

· **UN-Number**	
· **DOT/TDG, IMDG, IATA**	not regulated
· **UN proper shipping name**	
· **DOT/TDG, IMDG, IATA**	not regulated
· **Transport hazard class(es)**	
· **DOT/TDG, IMDG, IATA**	
· **Class**	not regulated
· **Packing group**	
· **DOT/TDG, IMDG, IATA**	Not applicable
· **Environmental hazards:**	
· **Marine pollutant:**	MARINE POLLUTANT
· **Special marking (IATA):**	ENVIRONMENTALLY HAZARDOUS
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable
· **Special precautions for user**	Not applicable
· **UN "Model Regulation":**	not regulated

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **OSHA Hazard Communication Standard (29 CFR Part 1900)**
The safety data sheet and label comply with HCS 2024.

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· **Hazardous Products Act (R.S.C., 1985, c. H-3)**
The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2022.

· **Sara**

· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**	
7439-92-1	lead

· **TSCA (Toxic Substances Control Act):**
All components have the value ACTIVE.

· **Hazardous Air Pollutants**	
7439-92-1	lead

· **Proposition 65**

· **Chemicals known to cause cancer:**	
7439-92-1	lead

· **Chemicals known to cause reproductive toxicity for females:**	
7439-92-1	lead

· **Chemicals known to cause reproductive toxicity for males:**	
7439-92-1	lead

· **Chemicals known to cause developmental toxicity:**	
7439-92-1	lead

· **Carcinogenic categories**

· **TLV (Threshold Limit Value)**		
7439-92-1	lead	A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**
All ingredients are listed.

· **Canadian Non-Domestic Substances List (NDSL)**
None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**	
7439-92-1	lead

· **Canadian Ingredient Disclosure list (limit 1%)**	
7440-31-5	tin

· **HMIS-ratings (scale 0 - 4)**
Health = * 2
Fire = 0
Reactivity = 0

· **Europe**

· **RoHS (Restriction of Hazardous Substances Directive)**
This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

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· **WEEE (Waste Electrical and Electronic Equipment Directive)**
This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

· **Per- and polyfluoroalkyl substances (PFAS)**

None of the ingredients is listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Regulatory department
· **Contact:** sds@mgchemicals.com
· **Version number of previous version:** 1.00
· **Date of preparation** 09/17/2026
· **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
· *** Data compared to the previous version altered.**