



## Safety Data Sheet

### 1. IDENTIFICATION

#### Product Identifier

Solder

#### Other means of identification

40/60 Tin/Lead

#### Product Code

5571

#### Recommended use of the chemical and restrictions on use

Recommended for commercial/industrial use

Not recommended for household use

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

Quick Cable Corporation  
3700 Quick Drive  
Franksville, WI 53126-0509  
[www.quickcable.com](http://www.quickcable.com)

#### Emergency Telephone Number (24 hr)

INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

### 2. HAZARDS IDENTIFICATION

**Physical state :** Solid.

**Odor :** Not applicable

**OSHA/HCS status :** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Emergency overview :** Warning!

Avoid exposure during pregnancy. Avoid contact of spilled material and runoff with soil and surface waterways.

#### **Potential acute health effects:**

**Eyes :** This product may irritate eyes and skin upon contact.

**Skin :** This product may irritate eyes and skin upon contact.

**Inhalation :** Fumes and/or dusts produced by this product may be hazardous in case of inhalation.

**Ingestion :** Fumes and/or dusts produced by this product may be hazardous in case of ingestion.

**Medical conditions aggravated by overexposure:** Repeated or prolonged exposure to the substance can produce target organs damage. See toxicological information (section 11)

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	%
Tin	7440-31-5	1 - 99
Lead	7439-92-1	1 - 99

### 4. FIRST-AID MEASURES

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Skin contact:** Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Inhalation:** Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Ingestion:** Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training.

### 5. FIRE-FIGHTING MEASURES

**Flammability of the product:** Non-flammable.

#### Extinguishing media

**Suitable:** Use an extinguishing agent suitable for the surrounding fire.

**Not suitable:** None known.

**Special exposure hazards:** No specific hazard.

**Special protective equipment for fire-fighters:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

**Environmental precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Methods for cleaning up:** If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

### 7. HANDLING AND STORAGE

**Handling:** Avoid contact of spilled material and runoff with soil and surface waterways. Wash thoroughly after handling.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product name	Exposure limits
Tin	<b>ACGIH TLV (United States, 1/2005).</b> TWA: 2 mg/m <sup>3</sup> 8 hour(s). Form: All forms <b>NIOSH REL (United States, 12/2001). Notes: Note: The REL and PEL also apply to other inorganic tin compounds (as Sn) except tin oxides.</b> TWA: 2 mg/m <sup>3</sup> 10 hour(s). Form: All forms <b>OSHA (United States, 0/1997). Notes: Respirable</b> TWA: 2 mg/m <sup>3</sup> <b>NIOSH (United States, 0/1994). Notes: Respirable</b> TWA: 2 mg/m <sup>3</sup> STEL: 4 mg/m <sup>3</sup> <b>Consult local authorities for acceptable exposure limits.</b>

**Engineering measures:** Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### Personal protection

**Eyes:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

**Skin:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory:** Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hands:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Solid.

**Color:** Colorless.

**Odor:** Not applicable

**Melting/freezing point:** not available

**VOC:** 0

**Ionicity (in water):** Non-ionic.

**Dispersibility properties:** Not dispersible in the following materials: cold water, hot water, methanol, diethyl ether, n-octanol, acetone.

**Solubility:** Insoluble in the following materials: cold water, hot water, methanol, diethyl ether, n-octanol acetone.

## 10. STABILITY AND REACTIVITY

**Stability and reactivity:** The product is stable.

**Conditions of instability:** Stable in normal conditions. Over melting point, toxic metallic oxides may be evolved.

**Incompatibility with various Substances:** Reactive or incompatible with the following materials: oxidizing materials, acids and moisture.

**Hazardous polymerization:** Will not occur.

**Conditions of reactivity:** Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.

## 11. TOXICOLOGICAL INFORMATION

### Toxicity data

Product/ingredient name	Test	Result	Route	Species
LEAD	LDLo	160 mg/kg	Oral	pigeon

**Chronic effects on humans: CARCINOGENIC EFFECTS:** Classified None. by NIOSH [TIN]. Classified for animals.) by ACGIH, 2B (Possible for humans.) by IARC [LEAD]. Classified 2 (Reasonably anticipated to be human carcinogens.) by NTP [LEAD]. Classified None. By NIOSH [LEAD]. Contains material which causes damage to the following organs: blood, kidneys, lungs, the nervous system, the reproductive system, spleen, brain, digestive system, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

**Other toxic effects on humans:** Slightly hazardous by the following route of exposure: of skin contact (irritant, sensitizer), of eye contact (irritant), of ingestion, of inhalation. Non-corrosive to skin. Non-permeator through skin.

**Special remarks on chronic effects on humans:** Human: LEAD crosses the placental barrier. CHRONIC OVEREXPOSURE EFFECTS; Increase of LEAD LEVEL in blood, muscle soreness, metallic taste, abdominal cramps, headaches.

**Special remarks on other toxic effects on humans:** MOLTEN METAL can cause severe BURNS!

Prolonged and repeated contact with bare skin may cause irritation or dermatitis. Fumes and dust may irritate eyes, digestive system and respiratory tract.

### Specific effects

**Carcinogenic effects :** Contains material which can cause cancer.. Risk of cancer depends on duration and level of exposure.

**Mutagenic effects :** No known significant effects or critical hazards.

**Teratogenicity /Reproductive toxicity:** No known significant effects or critical hazards.

### Sensitization

**Ingestion :** No known significant effects or critical hazards.

**Inhalation :** No known significant effects or critical hazards.

**Eyes :** This product may irritate eyes and skin upon contact.

**Skin :** No known significant effects or critical hazards.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity data

Product/ingredient name	Species	Period	Result
LEAD	Oncorhynchus mykiss (LC50)	96 hour(s)	1.17 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	471 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	542 mg/l

**Environmental precautions:** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Products of degradation:** Some metallic oxides.

**Toxicity of the products of biodegradation:** The product itself and its products of degradation are not toxic

### 13. DISPOSAL CONSIDERATIONS

**Waste disposal:** The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Disposal should be in accordance with applicable regional, national and local laws and regulations.** Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

### 14. TRANSPORT INFORMATION

Regulatory information	UN Number	Proper Shipping Name	Class	Packaging group	LABEL	Additional information
DOT Classification	Not regulated	-	-	-	-	N/A
TDG Classification	Not regulated	-	-	-	-	-
ADR/RID Class	Not regulated	-	-	-	-	-
IMDG Class	Not regulated	-	-	-	-	-
IATA-DGR Class	Not regulated	-	-	-	-	-

### 15. REGULATORY INFORMATION

#### SARA 313

	Product name	CAS number	Concentration
<b>Form R – Reporting:</b>	LEAD	7439-92-1	40 - 60
<b>Requirements</b>			
<b>Supplier notification:</b>	LEAD	7439-92-1	40 - 60

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

**State regulations:** Rhode Island Hazardous Substances: TIN; LEAD  
Pennsylvania RTK Hazardous Substances: TIN: (generic environmental hazard); LEAD: (environmental hazard, generic environmental hazard)  
Florida: TIN; LEAD  
Minnesota: TIN; LEAD  
Michigan Critical Material: LEAD  
Massachusetts Substances: TIN; LEAD  
New Jersey: TIN; LEAD  
New Jersey Spill: TIN

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient Name	Cancer	Reproductive	No Significant Risk	Max acceptable dosage
Lead	Yes	Yes	15 ug/day (injection) .0005 ug/day (inhalation)	Yes

**Canada**

**WHMIS (Canada):** Class D-2A: Material causing other toxic effects (Very toxic).  
CEPA DSL: TIN; LEAD  
Canadian NPRI: LEAD

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

**EU regulations**

**Hazard symbol or symbols:**



**Risk phrases:** R20/22- Harmful by inhalation and if swallowed.  
R36/38- Irritating to eyes and skin.  
R43- May cause sensitization by skin contact.  
R33- Danger of cumulative effects.  
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:** S24- Avoid contact with skin.  
S37- Wear suitable gloves.  
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

**International regulations**

**International lists:** Australia (NICNAS): TIN; LEAD  
China: TIN; LEAD  
Germany water class: TIN; LEAD  
Korea (TCCL): TIN; LEAD  
Philippines (RA6969): TIN; LEAD

**16. OTHER INFORMATION**

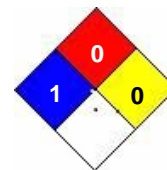
**Hazardous Material Information System (HMIS)**

**National Fire Protection Association (NFPA)**

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

**HMIS & NFPA Hazard Rating**

**Legend**  
0 = INSIGNIFICANT  
1 = SLIGHT  
2 = MODERATE  
3 = HIGH



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**References :** -CHEMTOX database

**Other special considerations:** -ALL COMPONENTS WITH SUSCEPTIBLE HAZARDS THAT ARE PRESENT IN A CONCENTRATION GREATER THAN 1 % (GREATER THAN 0.1 % FOR CARCINOGENS) HAVE BEEN DISCLOSED IN THIS SAFETY DOCUMENT.

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**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.