

CircuitMedic, 22 Parkridge Road, Haverhill, MA 01835 USA
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Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Solder Wire, Lead-Free, SAC305, Flux-Cored
Product Number:	115-2404
UFI Number:	RA9X-Q938-T30G-YC1T
Recommended use:	Flux-cored solder wire for general purpose for hand soldering in the electronics industry.
Supplier:	CircuitMedic 22 Parkridge Road, Haverhill, MA 01835 USA PHONE: 978-373-1600, FAX: 978-372-5700
Emergency Response:	For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 CCN4877 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

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Section 2. HAZARDS IDENTIFICATION

GHS label elements:	The product is classified and labeled according to Regulation (EC) No. 1272/2008.								
Hazard pictograms	 		Carc. 2 H351 Suspected of causing cancer. Repr. 1 H360 May damage fertility or the unborn child. STOT RE 2 H373 May cause damage to the organs through prolonged or repeated exposure. Acute Tox. 4 H302 Harmful if swallowed.						
Signal Words:	Danger								
Hazard components:	Lead (Pb)								
Hazard Statements:	H302 Harmful if swallowed. H351 Suspected of causing cancer. H360 May damage fertility or the unborn child. H373 May cause damage to the organs through prolonged or repeated exposure.								
Precautionary Statements:	P260 Do not breathe dust/fume/gas/mist/vapors/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P264 Wash thoroughly after handling. P270 Do not eat, drink, or smoke when using this product. P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P301+P312 If swallowed: Call a poison center/doctor if you feel unwell. P308+P313 IF exposed or concerned: Get medical advice/attention. P314 Get medical advice/attention if you feel unwell. P330 Rinse mouth. P405 Store locked up. P501 Dispose of contents/container following local/regional/national/international regulations.								
Classification System:	HMIS-rating (scale 0-4) <table><tr><td>Health</td><td>1</td></tr><tr><td>Flammability</td><td>1</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>			Health	1	Flammability	1	Reactivity	0
Health	1								
Flammability	1								
Reactivity	0								
Other hazards:	PBT: Not applicable. vPvB: Not applicable.								

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Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

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

CAS Number	Description	Notes	% Range
CAS: 7440-31-5 EINECS: 231-141-8	Tin (Sn)		55-70%
CAS: 7439-92-1 EINECS: 231-100-4	Lead (Pb)	Carc. 2, H351; Repr.1B,H360; STOT RE 2 H373 Acute Tox. 4, H302; Acute Tox. 4, H332	25-40%
Additional information:	Composition and weight percent of solder alloys vary widely and can be determined by product label.		

Section 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. Follow general first-aid procedures.
Inhalation:	Supply fresh air; consult doctor in case of complaints.
Skin Contact:	Immediately wash with water and soap and rinse thoroughly.
Eye Contact:	Rinse the opened eye for several minutes under running water.
Ingestion:	Seek immediate medical advice.
Information for doctor	
Most important symptoms and effects, both acute and delayed:	No further relevant information available.
Indication of any immediate medical attention and special treatment needed	No further relevant information available.

Section 5. FIRE-FIGHTING MEASURES

Extinguishing media	
Suitable extinguishing agents:	CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture:	In case of fire, the following can be released: Carbon monoxide (CO), Carbon dioxide (CO2), Aliphatic aldehydes
Advice for firefighters	
Protective equipment:	No special measures required.

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Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation
Environmental Precautions:	Do not allow entry into sewers/surface or ground water.
Methods and material for containment and cleaning up:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation. Melted solder will solidify on cooling and can be scraped up. Use caution to avoid breathing fumes if a gas torch is used to cut up large pieces.
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.

PAC-1:		
7440-31-5	Tin (Sn)	6 mg/m3
7439-92-1	Lead (Pb)	0.15 mg/m3
106-65-0	Methyl succinate	2.5 ppm
50-01-1	guanidinium chloride	1.4 mg/m3
PAC-2:		
7440-31-5	Tin (Sn)	67 mg/m3
7439-92-1	Lead (Pb)	120 mg/m3
106-65-0	Methyl succinate	28 ppm
50-01-1	guanidinium chloride	16 mg/m3
PAC-3:		
7440-31-5	Tin (Sn)	400 mg/m3
7439-92-1	Lead (Pb)	700 mg/m3
106-65-0	Methyl succinate	170 ppm
50-01-1	guanidinium chloride	94 mg/m3

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Section 7. HANDLING AND STORAGE

Conditions for safe storage, including any incompatibilities

Handling	
Precautions for safe handling:	Prevent formation of aerosols.
Information about protection against explosions and fires:	No special measures required.
Requirements to be met by storerooms and receptacles:	Store in a cool location.
Information about storage in one common storage facility:	Not required.
Further information about storage conditions:	Keep receptacle tightly sealed. Store in dry conditions. Exposure to sulfur or high humidity will tarnish the solder surface.
Specific end use(s):	No further relevant information available.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters	Components with limit values that require monitoring at the workplace:
CAS:7440-31-5 Tin (Sn)	
PEL:	Long-term value: 2 mg/m ³ metal
REL:	Long-term value: 2 mg/m ³
TLV	Long-term value: 2 mg/m ³ , metal
7439-92-1 Lead (Pb)	
PEL:	Long-term value: 0.05* mg/m ³ * see 29 CFR 1910.1025
REL:	Long-term value: 0.05* mg/m ³ *8-hr TWA; See Pocket Guide App. C
TLV	Long-term value: 0.05* mg/m ³ * and inorganic compounds, as Pb; BEI
Exposure Controls:	
General protective and hygienic measures:	The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages, and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breakfast and at the end of work.
Breathing equipment:	When ventilation is not sufficient to remove fumes from the breathing zone, a safety-approved respirator or self-contained breathing apparatus should be worn. Not necessary if the room is well-ventilated. Use a suitable respiratory protective device in case of insufficient ventilation.
Protection of hands:	Protective gloves. Cloth gloves, Nitrile rubber, NBR; Natural rubber, NR
Eye protection:	Safety glasses.

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Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties	
Physical State:	Solid.
Color:	Silver grey.
Odor:	Mild.
pH:	Not determined.
Melting Temperature:	183-184 °C (361-363 °F) Undetermined.
Boiling Temperature:	1740 °C (3164 °F)
Flash Point:	>93° C (>199 °F)
Ignition Temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Density:	Not determined.
Solubility in/Miscibility with Water:	Insoluble.
Solvent content:	Organic solvents: 0.1%; Solids content: 99.9%

Section 10. STABILITY AND REACTIVITY

Reactivity	
Reactivity:	No further relevant information available.
Thermal decomposition/conditions to be avoided:	No decomposition if used according to specifications.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	No further relevant information available.
Incompatible materials:	Strong acids, strong oxidizers.
Hazardous decomposition products:	Carbon monoxide and carbon dioxide. When heated to soldering temperatures, the solvents are evaporated and resin may be thermally degraded to liberate aliphatic aldehydes.

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Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects			
Acutetoxicity:	Harmful if swallowed.		
	LD/LC50 values that are relevant for classification		
	7439-92-1 Lead (Pb)		
	Oral	LD50	500 mg/kg (ATE)
	Inhalative	LC50/4 h	11 mg/l (ATE)
	Rosin		
	Oral	LD50	>4000 mg/kg (Rat)
	Inhalative	LD50	>2500 mg/kg (rabbit)
Primary irritant effect on the skin:			
Possible local irritation by contact with flux or fumes.			
Eye Toxicity:			
Smoke during soldering can cause eye irritation.			
Through inhalation:			
Flux fumes during soldering may cause irritation and damage to mucous membranes and the respiratory system.			
Through ingestion:			
May be harmful if swallowed.			
Sensitization:			
Based on available data, the classification criteria are not met.			
Carcinogenic categories			
IARC (International Agency for Research on Cancer):		7439-92-1 Lead (Pb)	
NTP (National Toxicology Program):		7439-92-1 Lead (Pb)	
OSHA-Ca (Occupational Safety & Health Administration):		None of the ingredients is listed.	

Section 12. ECOLOGICAL INFORMATION

Aquatic toxicity:	No further relevant information available.
General notes:	Do not allow undiluted product or large quantities of it to reach groundwater, watercourse, or sewage system. There is a danger to drinking water if even small quantities leak into the ground. The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary.
Results of PBT and vPvB assessment:	PBT: Not applicable. vPvB: Not applicable.</td>

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Section 13. DISPOSAL CONSIDERATIONS

Waste treatment method recommendation:	Disposal must be made according to official regulations. Must not be disposed of together with household garbage. Do not allow tallow products to reach the sewage system.
Uncleaned packagings recommendation:	Disposal must be made according to official regulations.

Section 14. TRANSPORT INFORMATION

UN-Number DOT, ADR, ADN, IMDG, IATA	Not applicable
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Not applicable
Transport hazard classes DOT, ADR ,ADN, IMDG, IATA Class	Not applicable
Packing group DOT, IMDG, IATA	Not applicable
Marine pollutant:	No
Special precautions for user:	Not applicable
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable
UN" Model Regulation":	Not applicable

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Section 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific to the substance or mixture	
The following information relates to product regulation specific to the USA.	
SARA Section 355:	None of the ingredient is listed.
SARA Section 313:	7439-92-1 Lead (Pb)
Chemicals known to cause cancer:	WARNING: This product contains a chemical known to the State of California to cause cancer. Lead (Pb)
Chemical known to cause reproductive toxicity:	WARNING: This product contains a chemical known to the State of California to cause birth defects and/or other reproductive harm. Lead (Pb)
Carcinogenic categories EPA:	7439-92-1 Lead (Pb)
NIOSH-Ca:	None of the ingredients is listed.
Canada:	Workplace Hazardous Materials Identification (WHMIS): This product has been classified following the hazard criteria of the Canadian Controlled Products Regulation (CPR), and the Safety Data Sheet (SDS) contains all of the information required by the CPR.
GHS label elements:	The product is classified and labeled according to the CLP regulation.
Hazard pictograms:	 GHS07
Signal word:	Danger
Hazard labeling:	Lead (Pb)
Hazard statements:	H302 Harmful if swallowed. H351 Suspected of causing cancer. H360 May damage fertility or the unborn child. H373 May cause damage to the organs through prolonged or repeated exposure.
Precautionary statements:	P260 Do not breathe dust/fume/gas/mist/vapors/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P264 Wash thoroughly after handling. 270 Do not eat, drink, or smoke when using this product. P201 Obtains special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P301+P312 If swallowed: Call a poison center/doctor if you feel unwell. P308+P313 If exposed or concerned: Get medical advice/attention. P314 Get medical advice/attention if you feel unwell. P330 Rinse mouth. P405 Store locked up. P501 Dispose of contents/container following local/regional/national/international regulations.
Chemical safety:	A Chemical Safety Assessment has not been carried out.

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Section 16. OTHER INFORMATION

HMIS:	Health	1
	Flammability	1
	Reactivity	0

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