



Safety Data Sheet

1. Supplier and Manufacturer

Aufhauser Corporation
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Emergency Phone Number: 516-694-8696 or 212-246-0205
CHEMTREC 24-hour Emergency Response: 800-424-9300 or 703-527-3887
SDS Number: Solder TinLead 201606
Product Codes: **TinLead combinations (40/60, 50/50, 60/40, 63/37)**
Product Use(s): Solder Alloys



SCAN CODE FOR PDF
OF THIS DOCUMENT

2. Hazards identification

Classification(s)

Health Hazard: Reproductive Sensitivity 2 - suspected of damaging fertility or the fetus.
Specific Target Organ Toxicity, Repeated Exposure 2 - may cause damage to organs through prolonged or repeated exposure.
Acute toxicity 4 - harmful if swallowed.
Aquatic Chronic 4 - may cause long lasting harmful effects to aquatic life.



Label Symbol(s): Health Hazard, Exclamation Point
Label Signal Word(s): Warning
Hazard-determining components of labeling: Lead (Pb)

Label Hazard Statement(s)

Harmful if swallowed.
Suspected of damaging fertility or the fetus.
May cause damage to organs through prolonged or repeated exposure.
May cause long lasting harmful effects to aquatic life.

Label Precautionary Statement(s)

Wash thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN: Wash with plenty of soap and water.
Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

<i>Ingredient</i>	<i>CAS Number</i>	<i>%wt.</i>	<i>Impurities</i>
Tin	7440-31-5	37-67	None known
Lead	7439-92-1	63-33	None known

Composition and weight percent of solder alloys varies widely and can be determined by product label.

Other product components which may be present:

NOMINAL COMPOSITION WEIGHT % Flux Core				
Trade Name	Activated Rosin CAS# 8050-09-7	Ammonium Chloride CAS# 12125-02-9	Zinc Chloride CAS# 7646-85-7	Water
Acid Core		< 20%	< 70%	Balance
Rosin Core	100%			

4. First aid measures

General information: Follow general first aid procedures.

Eyes: Rinse opened eye for 15 minutes under running water.

Skin: Immediately wash with water and soap and rinse thoroughly, at least 15 minutes.

Ingestion: Seek immediate medical advice. Rinse mouth with water if person is conscious. Do not induce vomiting unless directed by medical personnel.

Inhalation: Supply fresh air; consult doctor in case of complaints.

Note to Physician: Most important symptoms and effects, both acute and delayed; Indication of any immediate medical attention and special treatment needed. No further relevant information available.

5. Firefighting measures

Fire and Explosion Hazards: In case of fire, the following can be released: Carbon monoxide (CO), Nitrogen oxides (NOx), Carbon dioxide (CO2), lead oxide, tin oxide, zinc oxides, hydrogen chloride, ammonium compounds.

Extinguishing Media: Suitable extinguishing agents: CO2, sand, extinguishing powder.

Fire Fighting Instructions: If fighting a fire in which this product is present, wear a self-contained breathing apparatus with full face piece operated in pressure-demand or other positive pressure mode.

6. Accidental release measures

Methods and Materials: Dispose contaminated material as waste according to Section #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.

Personal Precautions: Ensure adequate ventilation.

Environmental Precautions: Prevent spills from entering sewers or contaminating soil.

7. Handling and storage

Handling Precautions: Prevent formation of dust. Use only in well ventilated areas.

Work and Hygiene Practices: To prevent ingestion following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing or protective equipment before entering eating/drinking areas.

Storage Precautions: Store in a cool and dry location away from incompatible materials (see Section #10). Exposure to sulfur or to high humidity will tarnish solder surface.

8. Exposure controls/personal protection.

Ingredients – Exposure Limits

CHEMICAL NAME	CAS #	% w/w	EXPOSURE LIMITS IN AIR					
			ACGIH – TLV		OSHA – PEL		NIOSH IDLH MG/M ³	OTHER MG/M ³
			TWA MG/M ³	STEL MG/M ³	TWA MG/M ³	STEL MG/M ³		
ACTIVATED ROSIN (EXPOSURE LIMITS ARE FOR ROSIN CORE SOLDER DECOMPOSITION PRODUCTS, AS RESIN-ACIDS-COLOPHONY)	8050-09-7	SEE PREVIOUS TABLE	SENSITIZER; REDUCE EXPOSURE TO AS LOW AS POSSIBLE	NE	NE	NE	NE	DFG MAK: TWA = DANGER OF SEMSITIZATION OF THE SKIN
AMMONIUM CHLORIDE (EXPOSURE LIMITS ARE FOR AMMONIUM CHLORIDE, FUME)	12125-02-9	SEE PREVIOUS TABLE	10	20	10 (VACATED 1989 PEL)	20 (VACATED 1989 PEL)	NE	NIOSH REL: TWA = 10 STEL = 20

LEAD (EXPOSURE LIMITS ARE FOR LEAD, ELEMENTAL & INORGANIC COMPOUNDS, AS Pb)	7439-92-1	SEE PREVIOUS TABLE	0.05, A4 (NOT CLASSIFIABLE AS A HUMAN CARCINOGEN)	NE	0.05 (SEE 29 CFR 1910.1025)	NE	100	NIOSH RELS: TWA = < 0.1 (BLOOD Pb < 0.6 MG/100 G WHOLE BLOOD) DFG MAKs: TWA = 0.1 (INHALABLE FRACTION) PEAK = 10•MAK 30 MIN., AVERAGE VALUE DFG MAK PREGNANCY RISK CLASSIFICATION: B CARCINOGEN: EPA-B2, IARC-2B, TLV-A4
TIN (THE FOLLOWING EXPOSURE LIMITS ARE FOR TIN, METAL)	7440-31-5	SEE PREVIOUS TABLE	2	NE	2	NE	100	NE
ZINC CHLORIDE (EXPOSURE LIMITS ARE FOR ZINC CHLORIDE, FUME)	7646-85-7	SEE PREVIOUS TABLE	1	2	1	2 (VACATED 1989 PEL)	50	NIOSH RELS: TWA = 1 STEL = 2 CARCINOGEN: EPA-D

General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed. Wash hands before breaks and at the end of work. Keep away from foodstuffs, beverages, and feed.

Exposure Controls: Use appropriate engineering control such as process enclosures, local exhaust ventilation to control airborne levels below recommended exposure limits.

When ventilation is not sufficient to remove airborne levels from the breathing zone, a NIOSH safety approved respirator or self-contained breathing apparatus should be worn. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Protection of hands: Material of gloves: Cloth gloves; Nitrile rubber, NBR; Natural rubber, NR

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; Face shield with Safety glasses when refilling.

9. Physical and chemical properties

Appearance: solid	Color: silver grey
Odor: none	pH-value: not applicable (n/a)
Melting point/range: 183-238C (361-460F)	Flash point: not determined
Flammability (solid, gaseous): not determined	Auto ignition: not self-igniting
Danger of explosion: does not present an explosion hazard	Vapor pressure: n/a
Density at 20C(68F): 8.4-9.3g/cm ³ (70.098-77.60 lbs/gal)	Vapor density: n/a
Solubility in/Miscibility with water: insoluble	Solvent content, organic: 0.0%
Solvent content, solids: 100.0%	

10. Stability and reactivity

Stability: Normally stable. May oxidize rapidly to form an insoluble layer of basic lead carbonate.

Reactivity: Chemical stability - thermal decomposition/ conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known

Conditions to avoid: Avoid uncontrolled exposure to extreme temperatures and incompatible materials.

Incompatible Materials: Strong acids, strong oxidizers, strong bases, hydrogen peroxide, sodium azide, ammonium nitrate, sodium acetylides, sodium carbide, zirconium, or chlorine trifluoride. The flux or rosin core of these products are incompatible with potassium, strong acids, alkalis, interhalogens, strong oxidizers, ammonium nitrate, hydrogen cyanide, potassium chlorate and lead salts (not lead metal) and silver salts.

11. Toxicological information

Information on toxicological effects

Acute toxicity:

Skin: No irritant effect.

Eye: No irritating effect.

Ingestion: May cause gastrointestinal irritation. May be harmful if swallowed.

Lead	TDLo (oral-woman) 450 mg/kg/6 yrs	TCLo (inhalation-human) 10 µg/m ³
Zinc chloride	TDLo (oral-child) 169 mg/kg	TCLo (inhalation-man) 4800 mg/m ³ /30 mins TCLo (inhalation-human) 4800 mg/m ³ /3 hrs

Sensitization to product: Fumes of Ammonium Chloride component may cause respiratory sensitization in susceptible individuals.

Mutagenicity: Product not reported to produce mutagenic effects in humans.

Embryotoxicity: Product not reported to produce embryotoxic effects in humans. High Lead (component) levels in human mother's blood can significantly increase risk of spontaneous abortions. Lead and Zinc Chloride components have produced embryotoxic effects in animals.

Teratogenicity: Product not reported to cause teratogenic effects in humans. Lead (component) has an adverse effect on human fetuses. Lead has produced teratogenic effects in animals.

Reproductive Toxicity: Product not reported to cause reproductive effects in humans. Lead (component) has produced embryotoxic effects in humans. Lead (component) has produced reproductive effects in animals.

Additional toxicological information:

Components of product may be: Harmful

Carcinogenic categories: Lead (7439-96-5): IARC Group 2B (Possibly carcinogenic to humans). ACGIH class A3 (Confirmed animal carcinogen with unknown relevance to humans). US NTP: R (Reasonably anticipated to be a human carcinogen).

Biological Exposure Indices: Lead in blood: 30 µg/100 mL.

12. Ecological information

Toxicity: Due to Lead component, adverse effect may occur to aquatic life and animals which come into contact with these products.

Additional ecological information: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

13. Disposal considerations

Waste treatment methods: Disposal must be made according to official regulations. Do not allow product to reach sewage system, soil or ground water.

Uncleaned packagings: Disposal must be made according to official regulations.

14. Transport information

UN-Number: Not regulated

ADR: Not regulated

UN proper shipping name: Not regulated

IMDG, IATA: Not regulated

Transport hazard class(es)

DOT, ADR, IMDG, IATA

Class: Not regulated.

Packing group: Not regulated

Marine pollutant: No

Special marking (ADR): Not Regulated

Special marking (IATA): Not Regulated

Special precautions for user: Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

15. Regulatory information

USA The following information relates to product regulation specific to the USA.

SARA (Superfund Amendments and Reauthorization Act)

Section 355 (extremely hazardous substances):

None of the ingredient is listed.

Section 313 (Specific toxic chemical listings):

7439-92-1 LEAD (Pb)

TSCA (Toxic Substances Control Act): Certified that all components listed below for the subject finished product are on the TSCA Inventory of Chemical Substances and are not subject to any chemical specific regulation under TSCA Section 12(b) export notification requirements delineated at 40 CFR part 707, subpart D.

All ingredients are listed or exempt from listing.

Other US Federal regulations:

The following product components are listed and controlled by one or more US Federal regulatory agencies: Ammonium Chloride, Lead, Zinc Chloride.

WARNING: This product may contain chemicals, and when used for welding or brazing may produce fumes or gases containing chemicals known to the state of California to cause cancer, and/or birth defects (or other reproductive harm).

Proposition 65 (California):

- Chemicals known to cause cancer: lead
- Chemicals known to cause reproductive toxicity for females: lead
- Chemicals known to cause reproductive toxicity for males: lead
- Chemicals known to cause developmental toxicity: lead

State Regulatory Information

Some components are listed in some US states.

Carcinogenic categories

Lead (7439-96-5): IARC Group 2B (Possibly carcinogenic to humans). ACGIH class A3 (Confirmed animal carcinogen with unknown relevance to humans). US NTP: R (Reasonably anticipated to be a human carcinogen).

CANADA: Not classified.

Labeling according to Regulation (EC) No 1272/2008

The product is classified and labeled according to the CLP regulation.

WHMIS Symbols: D2A, D2B

16. Other information including information on preparation and revision of the SDS

<u>NFPA Ratings for Product</u>	<u>HMIS Ratings for Product (Legend)</u>
Health - 2	Health - 2
Flammability - 0	Flammability – 0
Reactivity - 0	Reactivity – 0

Date of Preparation: 2016-Jun

Disclaimer

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Aufhauser Corporation