



SAFETY DATA SHEET (SDS)

Lead Solder Alloy

Date: 1/1/2015

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Lead Solder Alloy (Sn63Pb37, Sn60Pb40, Sn50Pb50, Sn40Pb60, Sn30Pb70)

MANUFACTURER: Amerway Inc.

ADDRESS: 3701 Beale Ave.
Altoona, PA 16601

PHONE: 814-944-0200

FAX PHONE: 814-944-1463

PRODUCT USE: Solder
PREPARED BY: Terry Buck

CHEMTREC: 800-424-9300
CHEMTREC (Outside US & Canada): 703-527-3887

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

ROUTES OF ENTRY:

EYES: Dust or fumes will be irritant.

SKIN: Not a route of entry into the body.

INGESTION: Harmful if swallowed.

INHALATION: If breathing is difficult, move victim to fresh air.

NFPA RATINGS (scale 0-4)

Health= 2
Fire= 0
Reactivity= 0

HMIS RATINGS (scale 0-4)

Health= 2
Fire= 0
Reactivity= 0

SECTION 2 NOTES: May cause damage to organs through prolonged or repeated exposure.
Suspected of damaging fertility or the unborn child.
May cause long lasting harmful effects to aquatic life.



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Tin/Lead

<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>	<u>SARA 313 REPORTABLE</u>
7440-31-5 Tin (Sn)	30-65		Yes
7439-92-1 Lead (Pb)	35-70		Yes

ACGIH TLV-TWA: Lead 0.5mg/cu m ACGIH
0.05mg/cu m OSHA (PEL)

Tin 2mg/cu ACGIH
2mg/cu m (Inorganic) OSHA
0/1mg/cu m (organic) OSHA

SECTION 3 NOTES: Composition and percent of solder alloys varies widely and can be determined by product label.
This product does not contain any Substance of Very High Concern (SVHC) on the European Chemicals Agency (ECHA) candidate list.

SECTION 4: FIRST AID MEASURES

EYES: Rinse opened eye for several minutes under running water.

SKIN: Immediately wash with soap and water and rinse thoroughly.

INGESTION: Seek immediate medical advice.

INHALATION: Supply fresh air, seek medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Suitable extinguishing agents – CO₂, sand, extinguishing powder. Do not use water.

SPECIAL FIRE FIGHTING PROCEDURES: If metal is present where there is fire, wear self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: In case of fire the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NO_x)
Carbon dioxide (CO₂)

HAZARDOUS DECOMPOSITION PRODUCTS: Lead fumes at high temperatures (above 800 degrees F.)

SECTION 5 NOTES:



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SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Ensure adequate ventilation

Do not allow to enter sewers/surface or ground water.

Allow to solidify and collect in sealed containers for disposal.

Use caution to avoid breathing fumes if a gas torch is used to cut up large pieces.

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE:

Store in dry conditions.

OTHER PRECAUTIONS:

Lead use is regulated under OSHA 29CFR 1910.1025. No food or drink should be allowed in areas where these products are handled. Personnel must wash thoroughly after handling the metal before drinking, eating or smoking.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

VENTILATION: If fume or dust is being generated, mechanical ventilation must be provided to maintain exposure level below TLV,s

RESPIRATORY PROTECTION: Respiratory protection is recommended but only if TLV's are exceeded. Use a NIOSH?MSHA approved respirator for toxic dust and/or fume. *Note: See 29CFR1910.1025 subpart (f) of OSHA's Lead Standard.*

EYE PROTECTION: Wear safety glasses during soldering operations.

SKIN PROTECTION: Skin protection is not normally needed but wash hands thoroughly.

CONTROL PARAMETERS: 7439-92-1 LEAD (Pb)

PEL - Long term value: 0.05* mg/m3
*see 29CFR 1910.1025

REL - Long term value: 0.05* mg/m3
*8-hr TWA, excl. lead arsenate; See PocketGuideApp.C

TLV - Long term value: 0.05* mg/m3
*and inorganic compounds, as Pb; BEI

7440-31-5 TIN (Sn)

PEL - Long term value: 2 mg/m3

REL - Long term value: 2 mg/m3

TLV - long term value: 2 mg/m3

SECTION 8 NOTES:

PEL= Permissible Exposure Limit (OSHA)

TLV= Threshold Limit Value (ACGIH)



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Silver grey.

ODOR: Odorless

PHYSICAL STATE: Solid

pH VALUE: Not applicable

MELTING POINT/MELTING RANGE: 183-238 °C (361-460 °F)

VAPOR PRESSURE (mmHg): Not applicable

DENSITY at 20 °C (68 °F): 8.4 – 9.3 g/cm³ (70.098 – 77.60 lbs/gal)

VAPOR DENSITY: Not applicable

WATER SOLUBILITY: Insoluble

SOLVENT CONTENT: Organic solvents = 0/0%
Solid Content = 100.0%

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID (STABILITY): Not applicable

INCOMPATIBILITY (MATERIAL TO AVOID): Strong acids, oxidizers, reducing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: No decomposition if used according to specifications.

HAZARDOUS POLYMERIZATION: Will not occur

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Skin Contact: No irritant effect.

Eye: Dust or fume will be irritant.

Ingestion: Ingestion of dust or fume must be avoided. Lead is toxic and cumulative, affecting the kidneys, reproductive system and nervous system. Symptoms of chronic overexposure include anemia, insomnia, weakness, irritability, constipation and stomach pains. Tin is not regarded as toxic but excessive exposure can cause fever, nausea, stomach cramps or diarrhea. This product when used for welding and similar applications, produces chemicals known to cause cancer and birth defects (or reproductive harm). (California Health & Safety Code 25249.5 et seq).

Inhalation: Inhalation of dust and fumes must be avoided. Irritation of nose and bronchial tracts may occur as well as effects due to absorption of lead, etc. in blood stream.

SECTION 11 NOTES:



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SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

Aquatic toxicity: No further relevant information available.

Note: 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.

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Must not be disposed of together with household garbage. Do not allow to reach sewage system. Disposal must be made according to official regulations. If proper disposal methods are not available, return product to supplier for reprocessing.

SECTION 13 NOTES:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: Not regulated

HAZARD CLASS: Not regulated

ID NUMBER: Not regulated

PACKING GROUP: Not regulated

LABEL STATEMENT: Not regulated

WATER TRANSPORTATION

PROPER SHIPPING NAME: Not regulated

HAZARD CLASS: Not regulated

ID NUMBER: Not regulated

PACKING GROUP: Not regulated

LABEL STATEMENTS: Not regulated

AIR TRANSPORTATION

PROPER SHIPPING NAME: Not regulated

HAZARD CLASS: Not regulated

ID NUMBER: Not regulated

PACKING GROUP: Not regulated

LABEL STATEMENTS: Not regulated

OTHER AGENCIES:

SECTION 14 NOTES:



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SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): All components listed for the subject finished product are on the TSCA Inventory of Chemical Substances and are not subject to any chemical specific regulation under TSAC Section 12(b) export notification requirements delineated at 40 CFR part 707, subpart D.

All ingredients are listed or exempt from listing.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

313 REPORTABLE INGREDIENTS: 7439-92-1 LEAD (Pb)

STATE REGULATIONS: California Proposition 65/Chemicals known to cause cancer. LEAD (Pb)

Warning: This product contains a chemical(s) known to the State of California to cause Cancer.

California Proposition 65/Chemicals known to cause reproductive toxicity, LEAD (Pb)

Warning: This product contains a chemical(s) known to the State of California to cause birth defects and/or other reproductive harm.

INTERNATIONAL REGULATIONS:

SECTION 15 NOTES:

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: This information is given in good faith, no warranty, express or implied is made. Amerway Inc. makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchasers use. The data on this Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and the necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Safety Data Sheet as a source for hazard information.

PREPARATION INFORMATION:

Contact: tbuck@amerway.com

SAFETY DATA SHEET

SUPERIOR RUBYFLUID PASTE

DATE REVISED: January 1, 2014

Product Name: Superior Rubyfluid Paste

Manufacturer: Superior Flux & Mfg. Co. 6615 Parkland Blvd. Cleveland, OH 44139

Emergency Phone Number: 1-800-424-9300 (CHEMTREC)

Other Information Calls: (440) 349-3000

To the Purchaser: This MSDS contains important environmental, health, and toxicology information for your employees who have ordered this product. Please be sure this information is given to them. If you resell this product, a copy of the MSDS should be given to the buyer.

H.M.I.S. INFORMATION: HEALTH = 1 FLAMMABILITY = 1 REACTIVITY = 1

SECTION I - IDENTIFICATION

Common Name: Superior Rubyfluid Paste

Chemical Family: Soft Soldering Flux

CAS Number: NA

Chemical Name: NA

Formula: See below

SECTION II - HAZARDS IDENTIFICATION

Classification of Substance or Mixture:

Classification (CLP): NA

Label Elements (CLP): NA



Irritant Environmentally Damaging

Precautionary Phrases: P264, P270, P273, P280, P301+P312, P305+P351+P338, P330, P337+P313, P301+P330+P331, P304+P340, P309+P311

Risk Phrases: R36/37/38, R34

Safety Phrases: S-26, S-27, S-36/37/39, S-45, S18, S61, S62, S64

See section XVI for full text description of S and R phrases

Other Hazards: None if used properly

SECTION III- COMPOSITION INFORMATION

Components	CAS Number	%	OSHA PEL	H Phrases
Zinc Chloride	7646-85-7	15-30	1 mg/m ³	H302, H314, H319, H335, H400, H401

Unlisted percentages are non-hazardous stabilizers, and water. None of the materials in this product are listed in NTP, IARC, or OSHA as carcinogens.

SECTION IV – FIRST AID MEASURES

Inhalation: Remove to fresh air
Eyes: Flush with water for fifteen (15) Minutes. Call physician.
Skin: Wash thoroughly with soap and water.
Ingestion: If patient is fully conscious, give large amounts of water. Obtain medical attention immediately.

Most Important Symptoms and effects, both acute and delayed

Primary Routes of Entry into Body: Fume inhalation, ingestion, skin, and eyes.

Symptoms of Overexposure: Salivation, coughing, choking, chills, may cause weight loss, brittle bones, anemia, and stiff joints.

Medical Conditions Generally Aggravated by Exposure: Any weakness of the lungs, kidneys or liver will be aggravated.

Chemical Listed as Carcinogen or Potential Carcinogen: None

OSHA Permissible Exposure Limit (PEL): NA

ACGIH Threshold Limit Value (TLV): NA

SECTION V - FIRE AND EXPLOSION HAZARD DATA

Flash Point: 204°C/400°F

Flammable Limits: NA

Extinguishing Media: Dry chemical, CO₂ foam

Auto Ignition Temperature: NA

Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: Will not occur

SECTION VI - ACCIDENTAL RELEASE MEASURES

Steps to be Taken in Case Material is Spilled: Clean up and dispose of in accordance with EPA regulations.

SECTION VII - HANDLING AND STORAGE

Storage Requirements: Store in plastic containers in cool area, away from heat.

Handling Precautions: Safe precautionary practices to avoid spills and exposure to skin and fumes.

Other Precautions: NA

SECTION VIII - CONTROL MEASURES

Respiratory Protection (TYPE): NIOSH approved respirator.

Ventilation: Yes

Mechanical (General): Explosion proof

Local Exhaust: Yes

Protective Gloves: Recommended, NIOSH approved

Other Protective Clothing or Equipment: Rubber apron is recommended.

Eye Protection: Safety Glasses

Regulatory Information: The chemical components are listed on TSCA and DSL inventory. See composition section ii for CAS numbers

SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point: >400°F

Specific Gravity (Water = 1): 1.08

Vapor Pressure (mm Hg): NA

Percent Volatile by Volume: NA

Vapor Density (Air = 1) : >1

Evaporation Rate (Butyl Acetate = 1): NA

Melting Point: > 100°F

Solubility in Water: Soluble

Reactivity in Water: None

Appearance and Odor: Red-colored paste, no characteristic odor

SECTION X - STABILITY AND REACTIVITY

Stability: Product is stable

(Conditions to Avoid): Metals

Incompatibility: Alkaline, strong oxidizing or reducing materials, cyanides or combustible materials.

Hazardous Decomposition Products: HCl, zinc chloride, zinc oxide, ammonium.

Hazardous Polymerization: Will not occur

(Conditions to Avoid): Excessive heat or cold

SECTION XI - TOXICOLOGICAL INFORMATION

Acute Toxicity Data

- 1) **Oral:** LD-50 (rat): Not available
- 2) **Inhalation:** LC-50 (rat): Not available
- 3) **Dermal:** LD-50 (rabbit): Not available
- 4) **Skin Irritation:** (rabbit): Not available

Chronic Toxicity Data

- 1) **Repeated Skin Application:** (rat): Not available
 - 2) **Eye Irritation:** (rabbit): Not available
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SECTION XII - ECOLOGICAL INFORMATION

This material has not been tested for environmental effects.

SECTION XIII - DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of in accordance with EPA regulations

SECTION XIV- TRANSPORTATION

D.O.T. Proper Shipping Name: NA
Hazard Class: NA
Identification Number: NA
Packing Group: NA
Type D.O.T Label Required Information: NA

SECTION XV - REGULATORY INFORMATION

OSHA Hazardous Chemical According to 29 CFR 1910.1200: NA
Carcinogenicity Classification: (Components Present at 0.1% or More)
International Agency for Research on Cancer (IARC): NA
American Conference of Governmental Industrial Hygienists (ACGIH): NA
National Toxicology Program (NTP): NA
Occupational Safety and Health Administration (OSHA): NA
All Components of this Product are Listed on the U.S. Toxic Substances Control Act Inventory or Otherwise Comply with TSCA Pre-manufacture Notification Requirements.
This product is RoHS compliant.

SECTION XVI - OTHER INFORMATION

The labeling of this product is indicated in Section II. The full text of all abbreviations indicated by codes in the MSDS are as follows:

R34	Causes burns
R36	Irritating to eyes
R37	Irritating to respiratory system
R38	Irritating to skin
S-18	Handle and open container with care
S-26	In case of eye contact, rinse thoroughly and get medical attention
S-27	Take off immediately contaminated clothing
S-36/37/39	Wear suitable protective clothing, gloves, and eye/face protection
S-45	In case of accident or if feel unwell call medical advice immediately
S61	Avoid release to the environment. Refer to special instructions/safety data sheet
S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label where possible
S64	If swallowed, rinse mouth with water (only if the person is conscious)
P264	Wash ... thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P330	Rinse mouth
P337+P313	If eye irritation persists get medical advice/attention

- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P309+P311 IF exposed or you feel unwell: Call a POISON CENTER or doctor/physician
- H302 Harmful if swallowed
H319 Causes serious eye irritation
H401 Toxic to aquatic life
H314 Causes severe skin burns and eye damage
H335 May cause respiratory irritation
H400 Very toxic to aquatic life

Further information:

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