SAFETY DATA SHEET (SDS)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Jubilee Solder Alloy**

Product Type: Bar/Wire

Recommended Use: Soldering

Latest Revision Date: March 20, 2024

Details of the supplier of the safety data sheet:

Manufacturer: Amerway Inc.
3701 Beale Ave.,
Altoona, PA 16601

Phone: 814-944-0200
Fax Number: 814-944-1463

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

SECTION 2: HAZARDS IDENTIFICATION

OSHA/HCS Status: This chemical is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Physical Hazards: Not applicable

Health Hazards: Acute Toxicity, Oral – Category 4
Skin Sensitization – Category 1
Carcinogenicity – Category 1B
Reproductive Toxicity – Category 1A
Specific Target Organ Toxicity (Repeated Exposure) – Category 2

Environmental Hazards: Hazardous to the Aquatic Environment, Acute Hazard – Category 2
Hazardous to the Aquatic Environment, Long-term Hazard – Category 3

GHS07 Harmful

GHS08 Health Hazard

Signal Word: Danger

Hazard Statement(s): Harmful if swallowed. May cause an allergic skin reaction. May cause cancer. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):

Prevention: Obtain, read, and follow all safety instructions before use. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/clothing/eye protection/face protection.

Response: If swallowed: Get medical help. If on skin: Wash with plenty of water. If exposed or concerned: Get emergency medical help immediately. For specific treatment, refer to section IV. Rinse mouth. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Collect spillage.

Storage: Store in a well-ventilated place.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Composition:

CAS No.	Common Name/Synonyms	% WT
7440-31-5	Tin (Sn)	60-65
7439-92-1	Lead (Pb)	35-40

Concentrations listed within a range protect proprietary information or account for batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4: FIRST AID MEASURES

Emergency Overview: Take off all contaminated clothing immediately. Ensure that proper training of the hazards associated with the materials involved are provided to handlers and medical personnel, and that precautions are maintained to prevent further exposure.

Potential Health Effects Following:

Eye Contact: Immediately flush eyes with running water for at least 15 minutes. Remove contact lenses if present and easy to do so. If eye irritation persists, get medical advice or attention.

Skin Contact: Immediately remove all contaminated clothing. Rinse skin with water, wash with a recognized skin cleaner. Wear appropriate protective gloves when handling contaminated clothing. Thoroughly wash all clothing before reuse. If skin irritation develops or if swelling, pain, and/or blisters appear, get medical advice or attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to unconscious persons. Call a poison center or physician if you feel unwell.

Inhalation: Remove victim to fresh air, keep at rest in a position comfortable for breathing. Call a poison center or physician if you feel unwell. Performing mouth to mouth resuscitation may be dangerous, use a bag valve mask if available. If unconscious, place in a recovery position and seek medical attention immediately. If present, loosen tight clothing such as ties, collars, belts, or waistbands.

Acute and Delayed Health Hazards:

Eye Contact: No known significant hazards.

Skin Contact: May cause an allergic skin reaction. Reduced fetal weight, skeletal malformation, increase in fetal deaths.

Ingestion: Reduced fetal weight, skeletal malformation, increase in fetal deaths.

Inhalation: Reduced fetal weight, skeletal malformation, increase in fetal deaths.

Most Important Symptoms/Effects: This product contains lead and has potential hazards to fertility and to the unborn child.

Notes to Physicians and First Aid Providers: Treat patients symptomatically. Contact a poison treatment specialist if large quantities have been ingested. No action involving personal risk shall be taken by personnel without suitable training.

SECTION 5: FIRE-FIGHTING MEASURES

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

Unsuitable Extinguishing Media: None known.

Flash Point: Not applicable.

Autoignition Temperature: No specific data.

Explosion Limits:
Upper: No specific data.
Lower: No specific data.

Specific Hazards Arising from the Chemical: No specific fire or explosive hazards.

Hazardous Thermal Decomposition Products: Metal oxide/oxides

Regulatory Ratings:

NFPA (scale 0-4)
Health= 1
Fire= 0
Reactivity= 0

HMIS (scale 0-4)
Health= 1
Fire= 0
Reactivity= 0

Special Fire Fighting Equipment/Procedures: Promptly isolate the scene by removing all non-essential personnel away from the incident in case of fire. No actions involving personal risk shall be taken by personnel without training.

Special Protective Equipment for Personnel: Fire-fighters and emergency personnel must utilize self-contained breathing apparatuses (SCBA) operating in positive pressure or other appropriate protection. Wear full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Ensure adequate ventilation. Use personal protective equipment, including proper respiratory, eye/face, and skin protection. See section 8 for appropriate personal protective equipment. Remove unnecessary personnel and restrict access to the incident area. Refer to section 13 for proper waste disposal methods. No action shall be taken involving personnel who are without suitable training.

Environmental Precautions: Should not be released into the environment. Avoid discharge into sewers/surface or ground water. Do not flush into surface water or sanitary sewer system. Inform relevant authorities if the product has caused environmental pollution. Use appropriate containment methods to prevent environmental contamination.

Containment and Cleanup: Sweep up or vacuum up and collect in suitable container for recovery or disposal. For small incidents, absorb with inert absorbent material such as vermiculite, sand, or earth and place into a well labeled container for later disposal. Keep in suitable, closed containers for disposal. Refer to section 13 for proper waste disposal methods.

SECTION 7: HANDLING AND STORAGE

Safe Handling Methods: Use proper protective equipment and avoid exposure to material. Observe good hygiene practices. Eating, drinking, and smoking should be prohibited where material is in use. Handlers of material should wash hands before eating, drinking, or smoking. Remove contaminated clothing before entering eating areas.

Safe Storage Conditions: Keep containers tightly closed when not in use. Keep containers in well ventilated areas.

Other Precautions and Incompatibilities: Prevent material from contact with incompatible materials. Contact with strong oxidizing materials may result in degradation of materials. Store away from direct sunlight. Do not reuse empty containers. Remaining residues in empty containers have the potential to be an environmental pollutant and should be handled and stored as if they were the material itself.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines: (as lead) TWA 0.05µg/m^3, 8 hr (OSHA); TWA 0.05 mg/m^3 (ACGIH)

Occupational Exposure Limits:

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Values
Tin	**PEL**	**2 mg/m^3, 8 hr**
Lead	**TWA**	**0.05 µg/m^3, 8 hr**

US. ACGIH Threshold Limit Values (TLV)

Component	Type	Values
Tin	**TWA**	**2 mg/m^3, 8 hr**
Lead	**TWA**	**0.05 mg/m^3, 8 hr**

US. NIOSH: Pocket Guide to Chemical Hazards (REL)

Component	Type	Values
Tin	PEL	2 mg/m^3, 10 hr
Lead	TWA	0.05 mg/m^3, 8 hr

Engineering Controls: Use with adequate ventilation systems. If applicable, utilize process enclosures in handling areas. Monitor airborne concentration levels and keep within regulatory limits. Provide eyewash stations and safety showers for emergency use.

Environmental Exposure Controls: Work process equipment used that handles this product should be monitored regularly to ensure that environmental emissions do not exceed local, state, or federal regulations. Ensure that equipment is leak-proof and use closed vessels where possible. If needed, utilize filters and scrubbers to maintain acceptable emissions. Engineering modifications may be necessary if material is being overexposed to the environment.

Personal Protective Equipment and Protective Measures:

Skin and Body: Protective, chemical resistant gloves and clothing complying with approved standards. Check glove manufacturers' specifications to determine approximate breakthrough times. Ensure that glove materials are compatible with all materials used in the workplace.

Respiratory: Utilize a respirator that meets the appropriate standards for the level of exposure. For high exposure applications, use a particulate rated respirator with full particulate coverage and full facepieces. Ensure that proper fitting and training is provided to personnel who handle hazardous materials.

Eye and Face: If not using a full face respirator, ensure that safety eyewear complies with approved standards. Chemical resistant splash goggles must be worn when handling materials. Depending on the degree of exposure, higher eye/face protection may be needed. Ensure that eyewash stations and safety showers are present in areas where material is handled.

Other: Appropriate footwear should be selected regarding the work action being performed. Higher degrees of protection may be required dependent on the specific application and workplace conditions. When evaluating additional protective equipment, consider the inherent hazards of the material, environmental conditions, and ergonomic considerations.

Additional Considerations: The above personal protective equipment (PPE) are recommendations based on the inherent hazards of the material used and may not include environmental considerations such as workplace conditions, practices, etc. The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate protective equipment necessary for the application and task involving exposure.

Work Hygienic Practices: Always observe good personal hygiene measures during and after handling of materials. Do not smoke near material. Wash hands or exposed areas before eating, drinking, or smoking to avoid accidental ingestion. Handlers of material should remove all contaminated clothing and protective equipment before entering eating facilities. Keep material separated from foodstuffs, beverages, and feed. Potentially contaminated clothing and protective equipment should not leave the workplace facilities. Provide eyewash stations and safety showers.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical State:	Solid
Color:	Metallic, gray/silver
Odor:	Not Applicable
Odor Threshold:	Not Determined
pH:	Not Applicable
Melting Point/Range:	**183**°C (361°F)
Boiling Point/Range:	Not Determined
Critical Temperature:	Not Determined
Flash Point:	Not Determined
Evaporation Rate:	Not Applicable
Flammability (Solid, Gas):	Not Determined
Explosive Limits	
Upper:	Not Applicable
Lower:	Not Applicable
Vapor Pressure, 38 °C:	Not Determined
Vapor Density:	Not Determined
Relative Density:	Not Determined
Solubility in Water:	Not Determined
Partition Coefficient: (n-octanol/water)	Not Determined
Autoignition Temperature:	Not Determined
Decomposition Temperature:	Not Determined

Viscosity, 20 °C: Not Determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity: This product is non-reactive under standard conditions of use, storage, and transport.

Chemical Stability: This product is stable under standard conditions.

Hazardous Reactions: Hazardous reactions will not occur. Hazardous polymerization does not occur.

Conditions to Avoid: Contact with oxidizing materials.

Incompatible materials: Avoid contact with strong oxidizers, acetaldehyde, chlorine, ethylene oxide, acids, and isocyanates. Contact with oxidizers could result in degradation of material quality.

Hazardous Decomposition Products: No hazardous decomposition products are known. Under standard conditions of storage and use, decomposition does not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: Lead - LD50 Oral - Rat - > 5000 mg/kg
Rosin - LD50 Oral - Rat - >7600 mg/kg

Skin Corrosion/Irritation: No data available.

Serious Eye Damage or Eye Irritation: No data available.

Respiratory or Skin Sensitization: Respiratory: Not studied, classification is not possible.
Skin: Not studied, classification is not possible.

Germ Cell Mutagenicity: Lead - Mammalian-Animal - Equivocal

Carcinogenicity: Lead - IARC 2b: Reasonably anticipated to be a human carcinogen.

Reproductive Toxicity: Lead - Rat - 250 mg/kg - Equivocal

Specific Target Organ Toxicity, Single: No data available. Not studied, classification is not possible.

Specific Target Organ Toxicity, Repeated: Lead - Category 1 - Nervous system and reproductive organs.

Aspiration Hazard: No data available. Not studied, classification is not possible.

Routes of Exposure – Acute Health Effects

Eyes: No data available. Not studied, classification is not possible.

Skin: No data available. Not studied, classification is not possible.

Ingestion: No data available. Not studied, classification is not possible.

Inhalation: No data available. Not studied, classification is not possible.

Chronic Health Hazards: Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. May damage fertility or the unborn child.

Symptoms Arising from Chemical/Toxicological Characteristics

Eyes: No data available. Not studied, classification is not possible.

Skin: May cause an allergic skin reaction. Reduced fetal weight, skeletal malformation, increase in fetal deaths.

Ingestion: Reduced fetal weight, skeletal malformation, increase in fetal deaths.

Inhalation: Reduced fetal weight, skeletal malformation, increase in fetal deaths.

Additional Information or Definitions: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity, Aquatic Toxicity: This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills or other serious environmental exposure can have a harmful or damaging effect on the environment.

Toxicity to fish: LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 hr
LC50 - Lepomis macrochirus (bluegill) - > 1,400 mg/l, 96 hr

Toxicity to daphnia And other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 5,102.00 mg/l - 24 hr
Immobilization EC50 - Daphnia magna (Water flea) - 6,851 mg/l - 24 hr

Toxicity to algae: EC50 - Desmodesmus subspicatus (green algae) - > 2,000.00 mg/l - 72 hr
EC50 - Algae - > 1,000.00 mg/l - 24 hr

Persistence and Biodegradability: No data is available on the degradability of any components of the product mixture.

Bioaccumulative Potential: Rosin - High - Log P_{ow} 1.9 - 7.7.

Mobility in Soil: No data available, not well studied.

Other Adverse Effects: Product contains volatile organic compounds which have a photochemical potential to create ozone.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Methods: When possible, avoid generation of waste. Collect and reclaim or dispose of materials in sealed containers at licensed waste disposal sites, or for collection by approved, licensed disposal contractors. Disposal must be made according to all federal, state, and local regulations that may apply.

Hazardous Waste Code: Not applicable.

Waste from Residues Empty Containers: Empty containers or liners retain product residues and have the potential to be hazardous. Empty containers and liners **Or** should be handled as if they were the material itself. Material residues and containers should be disposed of in a safe manner, see Waste Disposal Methods. Do not reuse containers that have not been properly washed.

SECTION 14: TRANSPORT INFORMATION

Land Transport (DOT/ADR/RID), Sea Transport (IMDG), Air Transport (ICAO-TI/ITA-DGR)

UN/NA Number: Not regulated.

UN Proper Shipping Name: Not regulated.

Transport Hazard Class(es): Not regulated.

Packing Group: Not regulated.

Environmental Hazards: Not regulated.

ERG Number: Not regulated.

Special Precautions: Within user's premises: transport in closed, upright containers.

SECTION 15: REGULATORY INFORMATION

U.S. Federal Regulations

TSCA 12(b): Annual export notification: Lead

SARA 303/304 Hazardous Categorization: None of the ingredients are listed.

SARA 311/312 Hazardous Categorization: None of the ingredients are listed.

SARA 313 Hazardous Categorization: Lead – Form R Reporting Requirement – 30-50%

Proposition 65, Chemicals Known to Cause:

Cancer: Lead - This product contains lead which may cause risk of cancer.

Reproductive Toxicity (Females): Lead - This product contains lead which may damage fertility or the unborn child.

Reproductive Toxicity (Males): Lead - This product contains lead which may damage fertility.

Developmental Toxicity: Lead - This product contains lead which may damage the unborn child.

Other Regulations

Clean Air Act: Listed - lead.

SECTION 16: OTHER INFORMATION

Preparation Information

Name: **Ethan Miller**
Company: **Amerway, Inc.**
E-Mail: **emiller@amerway.com**

Creation Date: **01/01/2012**
Latest Revision: **03/20/2024**
Revision Summary: This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

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.

End of SDS