JOHNSON MANUFACTURING COMPANY

Safety Data Sheet

To comply with 29CFR 1910.1200 OSHA's Hazard Communication Standard

228820

Tin/Lead/Antimony-AR100 Core Alloys

1. PRODUCT AND COMPANY INFORMATION

Johnson Manufacturing Company 114 Lost Grove Road Princeton IA 52768 Emergency Telephone 1-(563)-289-5123 CHEMTREC AFTER HOURS 1-(800)-424-9300 Revised 1/1/2018 by JMC Product Safety

2. HAZARD IDENTIFICATION

GHS Classification:

Acute Tox. 4 * Aquatic Acute 1 Chronic tox 2 Repro tox 2 Carcino 2 Skin sens 1

GHS Label Elements:

LEAD & ANTIMONY WARNING

H Codes: H302, H332, H351, H361, H373, H410, H317 Harmful if swallowed Harmful if inhaled May cause an allergic skin reaction Suspected of causing cancer Suspected of damaging fertility or the unborn child May cause damage to organs through prolonged or repeated exposure Very toxic to aquatic life with long lasting effects

P Codes:

P264, 270, 281, 301+312, 330, 501, 260, 312, 330, 261, 271, 301+312, 304+340, 405, 273, 305+351+338, 201, 202, 314, 391, 308+313 Do not handle until all safety precautions have been read & understood. Avoid breathing dust/mist/vapors/fumes/spray. Do not get in eyes, on skin, or on clothing. Use in a well ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation use respiratory protection. Do not breathe dust/fume/gas/mist/vapor/spray. Do not eat, drink or smoke when using this product. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately call a POISON CENTER/Doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with soap & water. Get medical advice/attention if skin irritation or rash occurs or if you feel unwell. IF INHALED: Remove victim to to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call POISON CENTER/Doctor. Wash thoroughly after use. Wash contaminated clothing before reuse. Store in a closed compatible container in cool dry place. Avoid release to the environment. Dispose of contents/container in accordance with specified local/regional/national/international regulations for disposal. Keep out of the reach of children. Read label and SDS prior to use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component	CAS #	OSHA TWA	ACIGH TWA	Other limits	%
Tin * + Lead + Antimony	7440-31-5 7439-92-1 7440-36-0	2mg/M3 0.05mg/M3 0.5mg/M3	2mg/M3 0.05mg/M3 0.5mg/M3	NE NE NE	% as specified % as specified

Only those ingredients listed in this section have been determined to be hazardous as defined in 29CFR 1910.1200. An ingredient marked with an asterisk(*) is also listed in 29CFR 1910.1200(D) #4 as a known or suspected cancer hazard.

+ denotes a chemical regulated as toxic by the Environmental Protection Agency (EPA) as outlined in 40CFR Part 372 (section 313)

4. FIRST AID MEASURES

Signs and symptoms of exposure: Inhalation-Nose & throat irritation, headache, dizziness, difficulty breathing, coughing. Ingestion-nausea, vomiting, cramps. Skin-redness, burning, rash, dryness. Eye-redness, burning, tearing, blurred vision.

Medical conditions aggravated by exposure: Skin, kidney and respiratory conditions.

Emergency first aid procedures:

Skin: Flush with water immediately - Seek medical attention if necessary

Eyes: Flush with water for 15 minutes - Seek medical attention

Ingestion: DO NOT induce vomiting, drink large amounts of water - seek medical attention. Never give anything by mouth to an unconscious person Inhalation: Remove to fresh air. Support respiration if required - Seek medical attention

5. FIREFIGHTING MEASURES

Extinguishing media: dry chemical.

Special fire fighting procedures: use self sustaining respiratory suit.

Unusual Fire and Explosion Hazards: May release Toxic metal & oxide fumes. High concentrations of dust may present explosion hazard. Water trapped below molten may explode thus spattering molten metal. Pyrolysis of rosin core solder yields formaldehyde, (OSHA & ACGIH TWA = 0.1mg/M3)

6. ACCIDENTAL RELEASE MEASURES

Methods and materials: Flush into chemical sewer or sweep up with a suitable absorbent. Wear adequate protection as described in section 8. **Environmental Precautions:** Avoid release to the environment. Collect spillage.

7. HANDLING & STORAGE

Wash thoroughly after use. Wash contaminated clothing before reuse. Store in a closed corrosive resistant container, with corrosive resistant liner, in cool dry place. Keep out of the reach of children. Read label and SDS prior to use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limit Values: See section 3. Respiratory Protection (type): HEPA mask required for fumes above TWA. Ventilation: Local Exhaust preferred Special: NE Mechanical: OK Other: NE Protective Gloves: plastic or rubber Eye Protection: Goggles or face shield Other Protective Clothing or Equipment: as required to avoid contact. Work/Hygienic Practices: Wash after use. Follow good industrial hygienic practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 3164 FSpecific Gravity: 7.8Vapor Pressure (mm Hg): NEMelting Point: NEVapor Density: NEEvaporation Rate: <1 (butyl acetate=1)</td>Solubility in water: negligiblepH: NEFlash Point: NE (TOC)Flammable Limits: lel: NE uel: NEAppearance and odor: Silver/Grey solid, odorless.

10. STABILITY AND REACTIVITY

Stability : STABLE Conditions to avoid : none

Incompatibility (materials to avoid): strong bases & acids, oxidizers, sulfides, halogens. Hazardous Decomposition or Byproducts (incomplete combustion): May release Toxic metal & oxide fumes. High concentrations of dust may present explosion hazard. Water trapped below molten may explode thus spattering molten metal. Pyrolysis of rosin core solder yields formaldehyde, (OSHA & ACGIH TWA = 0.1mg/M3)

Hazardous Polymerization: WILL NOT OCCUR Conditions to avoid: none

11. TOXICOLOGICAL INFORMATION

Routes of entry: Inhalation: yes Skin: no Ingestion: yes

Health Hazards (acute and chronic): Contact with dust and fumes may cause skin, eye and respiratory irritation. Ingestion and/or inhalation of material or fumes may result in flu like symptoms, insomnia, muscle weakness, nausea and abdominal pain. gross inhalation or ingestion may be toxic and can result in death. Symptoms of toxicity may take hours or days to manifest. Chronic exposures, inhalation and ingestion, may result in kidney, red blood cell, reproductive and nervous system effects. Health effects may be cumulative over many exposures. Studies show that health risks vary by individual.

Minimize exposure as a precaution. See OSHA 29CFR 1910.1025(subpart Z) for more information.

Carcinogenicity: not determined NPT? no IARC Monographs? Lead-suspect

12. ECOLOGICAL INFORMATION

Toxicity: NE Bio-accumulative Potential: NE PBT & vPvB Assessment: NE Persistence & Degradability: NE Mobility in Soil: NE Other Adverse Effects: NE

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: dispose of in accordance with all local state and federal regulations Other Precautions: Avoid skin & eye contact, inhalation & ingestion of fumes and material. Wash contaminated clothing before reuse. Keep away from children.

14. TRANSPORT INFORMATION

DOT Classification: Non-Hazardous Marine Pollutant: NE

15. REGULATORY INFORMATION

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NFPA Classification (NFPA 325M,8 edition)(Health, Flammability, Reactivity): 2-1-0 This product contains components known to the state of California to cause cancer or reproductive harm.

16. OTHER INFORMATION

The information and recommendations contained within this publication have been compiled from sources believed to be reliable and to represent the best information available to JOHNSON MANUFACTURING at the time of issue. No warranty, guarantee, or representation is made by JOHNSON MANUFACTURING assume any responsibility in connection there within; nor can it be assumed that all acceptable safety measures or other safety measures may not be required under particular or exceptional conditions or circumstances.

NE = not established NA = not applicable

Form 303.120 Rev.D