JOHNSON MANUFACTURING COMPANY Safety Data Sheet

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

#523 Tinning Paste, 21-60

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 1/1/2021 by JMC Product Safety

2. HAZARD IDENTIFICATION

GHS Classification:

Acute Tox. 4 * Skin Corr. 1B Aquatic Acute 1 Aquatic Chronic 1 Eye Irrit. 2



GHS Label Elements:

ZINC CHLORIDE & TIN/COPPER DANGER

H Codes: H302, H314, H319, H332, H410 Harmful if swallowed Harmful if inhaled Causes severe skin burns and eye damage Very toxic to aquatic life with long lasting effects

P Codes:

P264, 270, 280, 301+312, 330, 501, 260, 301+330+331, 303+361+353+310, 363, 304+340, 321, 405, 273, 305+351+338+310, 337+313, 391, 301+310, 332+313, 312, 363, 362, 302+352, 261, 271

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 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. Rinse skin with water/shower. Get medical advice/attention 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 INEXES: 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 corrosive resistant container, with corrosive resistant liner, 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	%
+ Copper Tin + Zinc Chloride + Ethylene glycol	7440-50-8 7440-31-5 7646-85-7	0.1mg/M3 2mg/M3 1mg/M3	0.2mg/M3 2mg/M3 1mg/M3	NE NE NE	10 % 56 % 7 %
n-butyl ether	111-76-2	20ppm skin	20ppm skin	NE	2 %

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 hydrochloric acid, zinc chloride, zinc oxide, metal & metal oxide fumes.

6. ACCIDENTAL RELEASE MEASURES

Methods and materials: Flush into chemical sewer or soak 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): Acid 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: 230 FSpecific Gravity: 4.5Vapor Pressure (mm Hg): NEMelting Point: 464 FVapor Density: NEEvaporation Rate: <1 (butyl acetate=1)</td>Solubility in water: 35%pH: NEFlash Point: NE (TOC)Flammable Limits: lel: NE uel: NEAppearance and odor: Grey paste, sweet odor.

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 hydrochloric acid, zinc chloride, zinc oxide, metal & metal oxide fumes.

Hazardous Polymerization: WILL NOT OCCUR Conditions to avoid: none

11. TOXICOLOGICAL INFORMATION

Routes of entry: Inhalation: yes Skin: yes Ingestion: yes

Health Hazards (acute and chronic): Contact with material or fumes may cause skin, eye and respiratory tract irritation or burns. Severe inhalation can cause pulmonary edema and "metal fume fever", which may not manifest for several hours after exposure. Prolonged or repeated skin exposure may result in absorption of harmful amounts of material. Ingestion may result in irritation or burning of the digestive tract. Gross inhalation or ingestion can result in death. LD50 (ZnCl2)(rat)=350 mg/kg. May be mutagenic in lab animals. May cause sensitization. Chronic exposures can result in permanent liver, kidney, blood, pancreas and respiratory system effects. Studies show that health risks vary by individual. Minimize exposure.

Carcinogenicity: not determined NPT? no IARC Monographs? no

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 can expose you to chemicals including ethylene oxide, which is known to the state of California to cause cancer and/or birth defects or reproductive harm. For more information go to www.P65Warnings.ca.gov.

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 303.16 Rev.E