

JOHNSON MANUFACTURING COMPANY**Material Safety Data Sheet**

to comply with 29 CFR 1910.1200,
OSHA's Hazard Communication Standard

Tin/Copper Alloys

Section I:

Johnson Manufacturing Company
114 Lost Grove Road
Princeton IA 52768

Emergency Telephone 1-(563)-289-5123
CHEMTREC after hours 1-(800)-424-9300
Revised 1/1/2012

Section II: Hazardous Ingredients/Identity information

Hazardous Component	CAS #	OSHA TWA	ACGIH TWA	Other limits	Percentage
Tin	7440-31-5	2mg/M3	2/mg/M3	NE	
+ Copper	7440-50-8	0.1mg/M3	0.2mg/M3	NE	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 40 CFR Part 372 (Section 313) (SARA Title III).

Section III: Physical/Chemical Characteristics

Boiling Point: 2210 C (4010 F) Density: 7.46 g/cc
Vapor Pressure (mm Hg): 1 @ 1375 C
(2507 F) Melting Point: 230 C (446 F)
Vapor Density: NA Evaporation Rate
Solubility in water: Nil (butyl acetate=1): NAP
Appearance and odor: Grey solid, odorless

Section IV: Fire and Explosion Hazard Data

Flash Point: NA Flammable limits lel: NAP uel: NAP
Extinguishing media: Dry chemical, do not use water
Special fire fighting procedures: Use self contained breathing apparatus.
Unusual Fire and Explosion Hazards: High concentrations of dust may present an explosion hazard.
May release metal and metal oxide fumes.

Section V: Reactivity Data

Stability : STABLE Conditions to avoid : none
Incompatibility (materials to avoid): Oxidizers, strong acids, turpentine, halogens
Hazardous Decomposition or Byproducts: Metal fumes, metal oxides.
Hazardous Polymerization: WILL NOT OCCUR Conditions to avoid: none

Section VI: Health Hazard Data

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

Health Hazards (acute and chronic): Contact with material, dust and fumes may cause skin, eye and respiratory tract irritation. Excessive inhalation of dust or fumes may result in "metal fume fever", with the onset of symptoms taking several hours after exposure to manifest. Ingestion may cause digestive tract irritation. Ingestion of very large amounts of material may be toxic. Excessive and repeated inhalation may result in benign pneumoconiosis. Chronic exposure via inhalation and ingestion may result in liver, red blood cell, kidney, reproductive and respiratory system effects. Excessive and repeated skin exposure may result in systemic effects including pigmentation changes. Studies show that potential health risks vary by individual. Always minimize exposure.

Carcinogenicity: not determined NTP? no; IARC Monographs? no

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

Medical Conditions Aggravated by exposure: Respiratory tract, skin, blood conditions.

Emergency first aid procedures:

Skin: Flush with water immediately - Treat for burns, seek medical attention if required

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

Ingestion: Drink large amounts of water, induce vomiting if practical-seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. Support respiration if required.

Seek medical attention if required.

Section VII: Precautions for Safe Handling and Use

Steps to be taken if material is released or spilled: Collect and use, if contaminated or in small particles, vacuum or collect material. Never use methods which generate dust.

Waste Disposal Method: Never dispose of in trash. Hold for recycling or 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. Do not reuse container.

Section VIII: Control Measures

Respiratory Protection (type): Dust mask for particulates. Metal fume type respirator for fumes.

Ventilation Local Exhaust preferred Special: NE

Mechanical: OK Other: NE

Protective Gloves: Heat resistant during soldering

Eye Protection: Goggles or face shield during soldering

Other Protective Clothing or Equipment: as required to avoid contact.

Work/Hygienic Practices: Wash after use. Follow good industrial hygienic practices.

Section IX: Additional Information

DOT Classification: non-hazardous

NFPA Classification (NFPA 325M, 8th edition) (Health, Flammability, Reactivity): 1-0-0

Other: NE

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circumstances.

NE = not established NA = not available NAP = not applicable

Form 303.103 Rev.C

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