

**JOHNSON MANUFACTURING COMPANY**  
**Material Safety Data Sheet**  
to comply with 29 CFR 1910.1200,  
OSHA's Hazard Communication Standard

## D - 5 Powder, 31-00

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### Section I:

Johnson Manufacturing Company  
114 Lost Grove Road  
Princeton IA 52768

Emergency Telephone (563)-289-5123  
CHEMTREC 1-(800)-424-9300  
Revised 1/1/2006

### Section II: Hazardous Ingredients/Identity information

Hazardous Component	CAS #	OSHA TWA	ACGIH TWA	Other limits
+ zinc chloride	7646-85-7	1mg/M3	1mg/M3	NE 70 %
ammonium chloride (as Zinc Ammonium Chloride)	12125-02-9	10mg/M3	fume 10mg/M3	fume NE
potassium chloride	7447-40-7	NE	NE	5mg/M3

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)

### Section III: Physical/Chemical Characteristics

Boiling Point: sublimates 640 F  
Vapor Pressure (mm Hg): NE  
Vapor Density: NE  
Solubility in water: 100%  
Appearance and odor: white solid - odorless

Specific Gravity: 2.6  
Melting Point: 450 F  
Evaporation Rate  
(butyl acetate=1): < 1

### Section IV: Fire and Explosion Hazard Data

Flash Point: NE  
Extinguishing media: all  
Special fire fighting procedures: use self sustaining respiratory suit  
Unusual Fire and Explosion Hazards: May release hydrochloric acid, zinc chloride, zinc oxide.

Flammable limits lel: NE uel: NE

### Section V: Reactivity Data

Stability : STABLE  
Incompatibility (materials to avoid): strong acids, cyanides, sulfides  
Hazardous Decomposition or Byproducts (incomplete combustion): Hydrochloric acid, zinc oxide, ammonia, zinc chloride.  
Hazardous Polymerization: WILL NOT OCCUR

Conditions to avoid : none  
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 or fumes may cause skin, eye and respiratory tract irritation or burns. Severe inhalation can cause pulmonary edema, which may not manifest for several hours after exposure. Ingestion may result in irritation or burning of digestive tract. Gross inhalation or ingestion can result in death. LD50 (ZnCl<sub>2</sub>)(rat)=350 mg/kg. May be mutagenic in lab animals. May cause sensitization. Chronic exposures can result in permanent liver, kidney and respiratory system effects. Product contains formaldehyde at <0.0003%, which is considered a suspected carcinogen by NTP

& IARC. Studies show that health risks vary by individual. Minimize exposure as a precaution.

Carcinogenicity: not determined NTP? no IARC Monographs? no

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, give 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.

## **Section VII: Precautions for Safe Handling and Use**

Steps to be taken if material is released or spilled: Flush into a chemical sewer or soak up with a suitable absorbant.

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. Do not reuse container.

## **Section VIII: Control Measures**

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

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.

## **Section IX: Additional Information**

DOT Hazard Classification: Non-hazardous

NFPA Classification (NFPA 325M, 8<sup>th</sup> edition)(Health, Flammability, Reactivity): 2-0-0

This product contains components known to the state of California to cause cancer or reproductive harm

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NE = not established NA = not applicable

Form 303.51 Rev.A

[Back](#)