

# Safety Data Sheet

## Zenker's Mercury Free Stock

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Zenker's Mercury Free Stock

**Catalog Numbers:** SO-687

**Company Identification:** Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.  
10 ELECTRONICS AVENUE  
DANVERS, MA 01923

**For information, call:** 978-739-4883

**Emergency Number:** 800-424-9300

**For CHEMTREC assistance, call:** 800-424-9300

### Section 2 - Hazards Identification

#### GHS Classifications

H303-Acute toxicity, oral: 5

H314-Skin corrosion/irritation: 1B

H317-Sensitisation, skin: 1

H318-Serious eye damage/eye irritation: 1

H332-Acute toxicity, inhalation: 4

H334-Sensitisation, respiratory: 1

H335-Specific target organ toxicity, single exposure; Respiratory tract irritation: 3

H340-Germ cell mutagenicity: 1B

H350-Carcinogenicity: 1B

H360-Reproductive toxicity: 1B

H372-Specific target organ toxicity, repeated exposure: 1

H401-Hazardous to the aquatic environment, acute hazard: 2

H411-Hazardous to the aquatic environment, long-term hazard: 2

#### Pictogram or Hazard Symbols and Hazard Statement(s):



Signal Word: Danger

#### Hazard Statements:

H303-May be harmful if swallowed

H314-Causes severe skin burns and eye damage  
H317-May cause an allergic skin reaction  
H318-Causes serious eye damage  
H332-Harmful if inhaled  
H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H335-May cause respiratory irritation  
H340-May cause genetic defects  
H350-May cause cancer  
H360-May damage fertility or the unborn child  
H372-Causes damage to organs through prolonged or repeated exposure (target organs: respiratory system, cardiovascular system, kidney, liver, and blood)  
H401-Toxic to aquatic life  
H411-Toxic to aquatic life with long lasting effects

### **Precautionary Statements:**

P201-Obtain special instructions before use.  
P202-Do not handle until all safety precautions have been read and understood.  
P260-Do not breathe dust/fume/gas/mist/vapours/spray.  
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264-Wash thoroughly after handling.  
P270-Do not eat, drink, or smoke when using this product.  
P271-Use only outdoors or in a well-ventilated area.  
P272-Contaminated work clothing should not be allowed out of the workplace.  
P273-Avoid release to the environment.  
P280-Wear protective gloves/protective clothing/eye protection/face protection.  
P284-In case of inadequate ventilation wear respiratory protection.  
P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.  
P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.  
P302+P352-If on skin: Wash with plenty of soap and water.  
P303+P361+P353-If on skin(or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340-If inhaled: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P313-If exposed or concerned: Get medical advice/attention.  
P310-Immediately call a Poison Center/doctor.  
P312-Call a Poison Center/doctor if you feel unwell.  
P314-Get medical advice/attention if you feel unwell.  
P333+P313-If skin irritation or rash occurs: Get medical advice/attention.  
P342+P311-If experiencing respiratory symptoms: Call a Poison Center/doctor.  
P362+P364-Take off contaminated clothing and wash it before reuse.  
P363-Wash contaminated clothing before reuse.  
P391-Collect spillage.  
P403+P233-Store in a well-ventilated place. Keep container tightly closed.  
P405-Store locked up.  
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7646-85-7	Zinc Chloride	5.1 w/v
7778-50-9	Potassium Dichromate	2.6 w/v
7732-18-5	Water	Balance

### Section 4 - First Aid Measures

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Get immediate medical attention.

**Dermal Exposure:** In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention.

**Oral Exposure:** If swallowed, get immediate medical advice. Do NOT induce vomiting. Rinse mouth with water.

**Inhalation Exposure:** If inhaled, remove to fresh air. Get immediate medical attention.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

**Hazardous Combustion Products:** Chromium oxides, potassium oxides, zinc/zinc oxides, hydrogen chloride gas, irritating and toxic fumes and gases.

**Flash Point:** Not available

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available

**Upper:** Not available

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 0

**Note:** Do not allow this material to dry out. When dried from aqueous solution, remaining solids will have oxidizing properties and should be kept away from flammables or combustibles.

## Section 6 - Accidental Release Measures

### **Procedure(s) of Personal Precaution(s):**

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation. Keep away from heat.

**Methods for Cleaning up:** Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

## Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation. Use only under a chemical hood. Avoid contact with eyes, skin, and clothing. Do not ingest. Do not breathe vapors/mist. Keep in a tightly closed container. Store in a cool, dry, and well-ventilated area. Protect from moisture. Keep away from clothing and other combustible materials. Keep away from incompatible materials.

**Note: Do not allow this material to dry out. When dried from aqueous solution, remaining solids will have oxidizing properties and should be kept away from flammables or combustibles.**

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### **Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

**Exposure Limits:**

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Zinc Chloride CAS#7646-85-7	1 mg/m <sup>3</sup> TWA 2 mg/m <sup>3</sup> STEL	1 mg/m <sup>3</sup> TWA 2 mg/m <sup>3</sup> STEL 50 mg/m <sup>3</sup> IDLH	1 mg/m <sup>3</sup> TWA
Potassium Dichromate CAS#7778-50-9	0.0002 mg/m <sup>3</sup> TWA 0.0005 mg/m <sup>3</sup> Skin STEL	0.0002 mg/m <sup>3</sup> TWA 15 mg/m <sup>3</sup> IDLH	0.1 mg/m <sup>3</sup> Ceiling

**OSHA Vacated PELs:** Zinc Chloride: 1 mg/m<sup>3</sup> TWA; 2 mg/m<sup>3</sup> STEL  
Potassium Dichromate: 0.1 mg/m<sup>3</sup> Ceiling

Section 9 - Physical and Chemical Properties
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**Physical State:** Liquid

**Appearance:** Orange

**Odor:** Odorless

**Vapor Pressure:** Not available

**Odor Threshold:** Not available

**Vapor Density:** Not available

**pH:** 4.25-4.95

**Relative Density:** Not available

**Melting point/freezing point:** Not available

**Solubility:** Soluble in water

**Boiling Point:** Not available

**Flash Point:** Not available

**Evaporation Rate:** Not available

**Flammability (solid, gas):** Not applicable

**Partition coefficient: n-octanol/water:** Not available

**Autoignition Temperature:** Not available

**Decomposition Temperature:** Not available

**Viscosity:** Not available

**Specific Gravity/Density:** Not available

Section 10 - Stability and Reactivity
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**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, ignition sources, and excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, reducing agents, strong bases, acids, acid anhydrides, cyanides, sulfides, and combustible material.

**Hazardous Decomposition Products:** Chromium oxides, potassium oxides, zinc/zinc oxides, hydrogen chloride gas, irritating and toxic fumes and gases.

**Note:** Do not allow this material to dry out. When dried from aqueous solution, remaining solids will have oxidizing properties and should be kept away from flammables or combustibles.

## Section 11 - Toxicological Information

### **CAS#7646-85-7 Zinc Chloride: RTECS#: ZH1400000**

LD50 Oral: 1100 mg/kg (rat)

LD50 Dermal: >2000 mg/kg (rat)

LC50 Inhalation: ≤1975 mg/m<sup>3</sup> 10min aerosol (rat)

**Carcinogenicity:** Zinc Chloride CAS#7646-85-7 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

### **CAS#7778-50-9 Potassium Dichromate: RTECS#: HX7680000**

LD50 Oral: 90.5 mg/kg (rat)

LD50 Dermal: 1150 mg/kg (rabbit)

LC50 Inhalation: 0.09 mg/L 4h (rat)

**Carcinogenicity:** Potassium Dichromate CAS#7778-50-9 is not listed by OSHA. Potassium Dichromate is listed by IARC (Group 1, Carcinogenic to Humans), NTP (Known Carcinogen), ACGIH (A1, Known Human Carcinogen), and California Prop. 65 as a carcinogen, developmental toxin, male reproductive toxin, and female reproductive toxin.

**Information on the likely routes of exposure:** Routes of entry anticipated: oral, dermal, inhalation, and eye.

**Epidemiology:** Not available.

**Teratogenicity:** May cause harm to the unborn child (Potassium Dichromate).

**Reproductive Effects:** May damage fertility or the unborn child (Potassium Dichromate).

**Developmental Effects:** Component substance is listed on California Prop. 65 as a developmental hazard. (Potassium Dichromate)

**Neurotoxicity:** Not available.

**Mutagenicity:** May cause genetic defects (Potassium Dichromate).

**Specific Target Organ Toxicity, Single Exposure:** Respiratory system.

**Specific Target Organ Toxicity, Repeated Exposure:** Respiratory system, cardiovascular system, kidney, liver, and blood.

**Symptoms associated with exposure:** Destructive to the tissue of the mucous membranes, respiratory tract, eyes, and skin. Skin contact may cause burns, redness, pain, blisters, and/or an allergic skin reaction. Eye contact may cause serious eye damage, pain, irritation, redness, watering, and blurred vision. If inhaled, may cause breathing difficulties, allergy/asthma symptoms, coughing, headache, and dizziness. Ingestion may irritate and burn mucous membranes and cause pain, vomiting, diarrhea, nausea, swelling, and tissue damage. May cause cancer. May cause genetic defects. May damage fertility or the unborn child.

**The toxicological properties of this material have not been thoroughly investigated.**

## Section 12 - Ecological Information

**Ecotoxicity:** Do not release to the environment. Do not release to drains. Toxic to aquatic life. May cause long-term adverse effects to the aquatic environment.

**CAS#7646-85-7 Zinc Chloride:**

LC50, freshwater fish: 0.169 mg/L 96h static (oncorhynchus mykiss)(rainbow trout)

EC50, water flea: 0.33 mg/L 48h static (daphnia magna)

IC50, bacteria: 0.35 mg/L 4h static (activated sludge)

**CAS#7778-50-9 Potassium Dichromate:**

LC50, freshwater fish: 14-20.9 mg/L 96h (pimephales promelas)(fathead minnow)

LC50, freshwater fish: 58.5 mg/L 96h (danio rerio)(zebra fish)

LC50, freshwater fish: >139 mg/L 96h static (cyprinus carpio)(carp)

LC50, freshwater fish: 12.3 mg/L 96h semi-static (oncorhynchus mykiss)(rainbow trout)

ErC50, algae: 0.233 mg/L 72h static (selenastrum capricornutum)(green algae)

EC50, water flea: 0.035 mg/L 48h (daphnia magna)

**Persistence and degradability:** Not available.

**Bio-accumulative potential:** Not available.

**Mobility:** Will likely be mobile in the environment due to its water solubility.

## Section 13 - Disposal Considerations

**DISPOSAL:** Dispose of in accordance with all federal, state, and local regulations.

## Section 14 - Transport Information

**DOT**

Non-Regulated

## Section 15 - Regulatory Information

### Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information
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**SDS Creation Date:** 11-20-19

**Revision #1:** 5-6-22

**Revision #2:** 9-10-24

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