

MATERIAL SAFETY DATA SHEET

ZENKER FLUID
CAROLINA BIOLOGICAL

Revised: 16/07/04
Replaces: 09/05/00
Printed: 18/08/08

1. PRODUCT DESCRIPTION

Product Name: Zenker Fluid
Product Code(s): 89-9203
Size: 500 ml
Chemical Name: N/A
CAS Number: See section 2
Formula: See section 2
Synonyms: None
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principle Hazardous Components: Mercuric Chloride (CAS#7487-94-7) 5%
Potassium Dichromate (CAS#7778-50-9) 2.5%
Sodium Sulfate anhydrous (CAS#7757-82-6)

1%

TLV and PEL units: Mercuric Chloride: OSHA PEL 0.1 mg/m3 (TWA)
ACGIH TLV 0.1 mg/m3 (TWA)
Potassium Dichromate: OSHA PEL 0.05mg/m3 (TWA)
ACGIH TLV 0.1mg/m3 (TWA)

3. HAZARD IDENTIFICATION

Emergency Overview: Causes severe irritation. May be fatal if
swallowed,

inhaled or absorbed through the skin.

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:

Eyes - Flush with water for at least 15 minutes, raising and lowering
eyelids occasionally. Get medical attention if irritation persists.

Skin - Thoroughly wash exposed area for at least 15 minutes. Remove
contaminated clothing. Launder contaminated clothing before reuse. Get
medical attention if irritation persists.

Ingestion - If swallowed, if conscious, give plenty of water.

Immediately call a physician or poison control center. Never give
anything by mouth to an unconscious person.

Inhalation - Remove to fresh air. Give oxygen if breathing is
difficult; give artificial respiration if breathing has stopped. Keep
person warm and quiet, and get medical attention.

5. FIREFIGHTING PROCEDURES

Flash Point(Method Used): No data available

NFPA Rating: None established for this mixture

Extinguisher Media:

Use dry chemical, CO2 or appropriate foam.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

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Special Firefighting Procedures:

Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: In fire conditions, this product may evolve toxic fumes of mercury, chlorine, or chromium, as well as oxides of sulfur. This product does not present an explosion hazard.

6. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:

Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing: Store tightly closed in a cool, dry, well ventilated area suitable for storage of toxic liquids.

8. SPECIAL PROTECTION INFORMATION

Respiratory Protection(Specify Type):

A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust:	Yes
Mechanical(General):	Yes
Special:	No
Other:	No

Protective Gloves:

Rubber, neoprene, PVC, or equivalent.

Eye Protection:

Splash proof chemical safety goggles should be worn at all times.

Other Protective Clothing or Equipment:

Lab apron, eye wash, and safety shower.

9. PHYSICAL DATA

Molecular Weight:	Mixture
Melting Point:	N/A
Boiling Point:	N/A
Vapor Pressure:	N/A
Vapor Density(Air=1):	N/A
Specific Gravity(H2O=1):	N/A
Percent Volatile by Volume:	N/A
Evaporation Rate(H2O=1):	N/A
Solubility in Water:	Complete, product is an aqueous solution
Appearance and Odor:	Yellowish-red liquid with no odor.

10. REACTIVITY DATA

Stability: Stable

Conditions to Avoid: None

Incompatibility(Materials to Avoid): Water reactive materials

Hazardous Decomposition Products: If material is heated to decomposition,

fumes of mercury, chromium, chlorine, and/or oxides of sulfur may be

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produced.

Hazardous Polymerization: Will not occur

11. TOXICITY DATA

Toxicity Data: Toxicological properties of this mixture have not been thoroughly investigated. Data listed below is for individual components:

Mercuric Chloride -oral-rat LD50: 1 mg/kg

Potassium Dichromate- oral-mouse LD50: 190 mg/kg

Sodium Sulfate- oral-mouse LD50: 5989 mg/kg

Effects of Overexposure:

Acute: See section 3

Chronic: Effects of chronic exposure to mercury and mercury products

may include concentrating of the metal in tissues of the brains, liver, and

kidneys. Symptoms may include headache, tremors, loose teeth, loss of appetite, blisters on the skin, and impaired memory.

Conditions Aggravated by Overexposure: N/A

Target Organs: Tissues of the brains, liver, kidneys, head, teeth, skin, eyes.

Primary Route(s) of Entry: Inhalation, ingestion, eyes, skin

12. ECOLOGICAL DATA

EPA Waste Numbers: Mercuric Chloride: D002, U151, D009

Potassium Dichromate: D001, D002

13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal,

State and Local regulations.

Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION

Mercuric Chloride solution, UN1624, 6.1, PGII

15. REGULATORY INFORMATION

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute, Chronic

RCRA Product or Sec. Components 261.33	SARA EHS Sec. 302 TPQ	SARA Sec. 313 Chemicals		CERCLA	
		Name	Chemical	Sec. 103	RQ lbs.
Mercuric Chloride	500/1000	Yes	Yes	1	
Yes					
Potassium Dichromate	No	Yes	Chromium Cpd	1	No
Sodium Sulfate, anh.	No	No	No	No	No

16. ADDITIONAL INFORMATION

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The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists
CAS Number..Chemical Abstracts Service Number
CERCLA.....Comprehensive Environmental Response, Compensation, and Liability Act
DOT.....U.S. Department of Transportation
IARC.....International Agency of Research on Cancer
mppcf.....million particles per cubic foot
N/A.....Not Available
NTP.....National Toxicology Program
OSHA.....Occupational Safety and Health Administration
PEL.....Permissible Exposure Limit
ppm.....parts per million
RCRA.....Resource Conservation and Recovery Act
SARA.....Superfund Amendments and Reauthorization Act
TLV.....Threshold Limit Value
TSCA.....Toxic Substances Control Act