1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: **Zenker Fixative, Modified, Zinc Chloride**
Part Number: 1461
CAS-No.: Not applicable
SDS Number: 4690

1.2 Recommended Use: Laboratory Chemicals

1.3 Company:
NEWCOMER SUPPLY
1020 PRAIRIE VIEW CT
WAUNAKEE WI 53597-8512
Telephone: 1-800-383-7799
Fax: 1-608-831-0866
Website: www.newcomersupply.com
Email: info@newcomersupply.com

24 HOUR EMERGENCY CONTACT
CALL CHEMTREC: 1-800-424-9300
Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification, (in accordance with 29 CFR1910.1200)
Acute toxicity (oral), Category 2
Acute toxicity (inhalation), Category 2
Acute toxicity (dermal), Category 1
Skin corrosion, Category 1
Serious eye damage, Category 1
Respiratory sensitization, Category 1
Germ cell mutagenicity, Category 1B
Carcinogenicity, Category 1B
Reproductive toxicity, Category 1B
Specific Target Organ Toxicity – Repeated exposure, Category 1

2.2 GHS Label elements
Signal Word DANGER

Pictogram

Hazard Statement(s):
· Fatal if swallowed
· Fatal if inhaled
· Fatal in contact with skin
· Causes severe skin burns and eye damage
· May cause allergy or asthma symptoms or breathing difficulties if inhaled
· May cause genetic defects
· May cause cancer
· May damage fertility or the unborn child
· May cause damage to organs through prolonged or repeated exposure

Precautionary Statement(s):
Prevention:
· Obtain special instructions before use.
· Do not handle until all safety precautions have been read and understood.
· Wash skin thoroughly after handling.
· Do not eat, drink or smoke when using this product.
· Wear protective gloves/protective clothing/eye protection/face protection.
· Do not breathe dust/fume/gas/mist/vapors/spray.
· Do not get in eyes, on skin, or on clothing.
· Use only outdoors or in a well-ventilated area.

· In case of inadequate ventilation wear respiratory protection.

Response:

· IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
· IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water [or shower].
· Wash contaminated clothing before reuse.
· IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
· IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
· IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
· Specific treatment is urgent: see first aid measures in section 4.
· Immediately call a POISON CENTER or doctor/physician.

Storage:

· Store in a well ventilated place. Keep container tightly closed.
· Store locked up.

Disposal:

· Dispose of contents/ container to an approved waste disposal plant.

2.3 Description of any hazards not otherwise classified None

2.4 >1% of mixture with unknown acute toxicity None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous Components

Component		**Concentration**
Name	Potassium Dichromate	
CAS-No.	7778-50-9	3%
Name	Zinc Chloride	
CAS-No.	7646-85-7	5%

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

Eye Contact

IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion (swallowed)

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and or effects, acute and delayed

The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

NFPA Rating

Health hazard:	2	Fire hazard:	0	Reactivity hazard:	0

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

Component	CAS-No.	Regulatory	Value	Parameters
Potassium Dichromate	7778-50-9	OSHA PEL	TWA	0.005 mg/m^3
		NIOSH REL	TWA	0.001 mg/m^3
		ACGIH TLV	TWA	0.05 mg/m^3
		CANADA/QC	TWA	0.05 mg/m^3
		CANADA/ON	TWA	0.05 mg/m^3
		CANADA/BC	TWA	0.025 mg/m^3
		CANADA/AB	TWA	0.05 mg/m^3

Component	CAS-No.	Regulatory	Value	Parameters
Zinc Chloride	7646-85-7	OSHA PEL	TWA	1 mg/m^3
		NIOSH REL	TWA	1 mg/m^3

		NIOSH REL	STEL	2 mg/m^3
		ACGIH TLV	TWA	1 mg/m^3
		ACGIH TLV	STEL	2 mg/m^3
		CANADA/ON	TWA	1 mg/m^3
		CANADA/ON	STEL	2 mg/m^3
		CANADA/QC	TWAEV	1 mg/m^3
		CANADA/AB	TWA	1 mg/m^3
		CANADA/AB	STEL	2 mg/m^3
		CANADA/BC	TWA	1 mg/m^3
		CANADA/BC	STEL	2 mg/m^3

8.2 Exposure Controls

Appropriate engineering controls

Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises.

8.3 Personal Protective Equipment

Eye/Face protection

Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection

Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection

No data available

Respiratory Protection

Respirators should only be used if the employer has a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).
In case of emergency, entry into or escape from unknown concentrations, select the highest level approved respiratory protection available.

Other Information

None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Orange liquid
Odor	Odorless
Odor threshold	No data available
pH	No data available
Melting point/freezing point	ca. 0°C (ca. 32°F)
Initial boiling point and boiling range	ca. 100°C (ca. 32°F)
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper flammability or explosive limits	No data available
Lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available

Relative density	No data available
Solubility(ies)	Water soluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Potassium dichromate reacts violently with hydrazine; anhydrous hydroxylamine; ethylene glycol; and mixtures of sulfuric acid and acetone. Combinations of potassium dichromate with boron and silicon, iron or tungsten form explosive pyrotechnic mixtures. Potassium dichromate is not compatible with oxidizing agents (such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine and fluorine); strong acids (such as hydrochloric, sulfuric and nitric); and metals. Zinc chloride may react violently or explosively with potassium. Zinc chloride is not compatible with cyanides; sulfides; oxidizing agents (such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine and fluorine); and strong bases (such as sodium hydroxide and potassium hydroxide). Zinc chloride is corrosive to metals.

10.6 Hazardous decomposition products
No data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
No data available

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
Contact with potassium dichromate and zinc chloride can irritate and burn the skin.

Serious eye damage/irritation
Contact with potassium dichromate and zinc chloride can irritate and burn the eyes with possible eye damage.

Respiratory or skin sensitization
Potassium dichromate may cause an asthma-like allergy. Future exposure can cause asthma attacks with shortness of breath, wheezing, coughing, and/or chest tightness.

Germ Cell mutagenicity

Potassium dichromate can cause change in the genetic material in a body cell leading to birth defects, miscarriages, or cancer.

Reproductive toxicity
There is limited evidence that potassium dichromate may damage the developing fetus in animals.

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
Potassium dichromate may damage the liver and kidneys.

Aspiration hazard
No data available

Acute toxicity
Potassium Dichromate:
LD50 rat oral 25 mg/kg
LD50 rat dermal 14 mg/kg
LD50 rat inhalation 0.088 mg/l/4 hours
Zinc Chloride:
LD50 rat oral 350 mg/kg

Carcinogencity
IARC: Potassium Dichromate: Group 1 - Carcinogenic to humans
NTP: Potassium Dichromate: Known to be a human carcinogen
OSHA: Potassium Dichromate: Specifically regulated carcinogen

Additional information
RTECS: No data available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods
Contents
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

14.1 DOT (US)

UN-Number	Not regulated
Proper shipping name	Not regulated
Hazard class	Not regulated
Packing group	Not regulated
Environmental hazards	Not regulated

15. REGULATORY INFORMATION

15.1 Canadian Regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all information required by the HPR.

Canada DSL Inventory: Registration Status

Chromic acid (H2Cr2O7), dipotassium salt (7778-50-9): LISTED
Zinc Chloride (7646-85-7): LISTED

Canada Environmental Emergency Regulations Schedule 1: Listed Substance

Not listed

Canada NPRI (Supplier Notification Required): Listed Substance

Not listed

Export Control List (CEPA, 1999, Schedule 3)

Not listed

Non-Regulatory Intsruments

Not listed

Schedule 8 of the New Substances Notification Regulations (Chemicals and Polymers)

Not listed

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com