

# KromaTiD

## SAFETY DATA SHEET

For

**Probe**

Effective Date 08 November 2021

Version No: 3.0 Supersedes: 2.0

### 1. IDENTIFICATION

**Product identifier:** Probe

**Synonyms:** None

**Identified use:** Used in research as a gene tracking assay

**Company undertaking name & address:** KromaTiD, Inc., 1880 Industrial Circle, Longmont, CO 80501

**General information telephone:** 1 (303) 525-2375

**Competent person e-mail address:** info@kromatid.com

**Emergency telephone number:** Within the USA and Canada: CHEMTREC: 1 (800) 424-9300.  
Outside the US and Canada 1 (703) 527-3887, Collect calls will be accepted.

### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Health	Environmental	Physical
<b>Acute Toxicity (oral):</b> Not classified <b>Acute Toxicity (dermal):</b> Not classified <b>Acute Toxicity (inhalation):</b> Not classified <b>Skin Corrosion/Irritation:</b> Not classified <b>Serious Eye Damage/Irritation:</b> Not classified <b>Respiratory/Skin Sensitization:</b> Not classified <b>Germ cell mutagenicity:</b> Not tested <b>Carcinogenicity:</b> Not tested <b>Reproductive/developmental:</b> Not classified <b>Lactation hazard:</b> Unknown <b>STOT (single exposure):</b> Not classified <b>STOT (repeated):</b> Not classified <b>Aspiration hazard:</b> Unknown	Not classified	Not classified

#### GHS Label Elements

**Symbols:** No symbols required

**Signal Word:** No signal word required

Hazard Statements

No hazard statements required.

Precautionary Statements

No precautionary statements required.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance :** Potassium acetate  
% Content : Trade Secret (w/vol)  
CAS Number: 127-08-2  
EINECS : 204-822-2

**Substance:** Tris-acetate  
% Content: Trade Secret (w/vol)  
CAS Number: 71-50-1  
EINECS: Not listed

**Substance:** Magnesium acetate  
% Content: Trade Secret (w/vol)  
CAS Number: 142-72-3  
EINECS: 205-554-9

**Substance:** Cobalt chloride  
% Content: Trade Secret (w/vol)  
CAS Number: 1332-82-7  
EINECS: Not listed

**Substance:** Terminal transferase enzyme  
% Content: Trade Secret (w/vol)  
CAS Number: Not listed  
EINECS: Not listed

**Substance:** Oligonucleotides  
% Content: Trade Secret (w/vol)  
CAS Number: Not listed  
EINECS: Not listed

### 4. FIRST AID MEASURES

**Skin contact:** In case of skin contact, removed contaminated clothing, flush area with large amounts of water for 15 minutes. Use soap if available. Seek medical attention immediately if skin irritation or rash develops.

**Eye contact:** In case of eye contact, flush with copious amounts of water for at least 15 minutes. Seek medical attention immediately if irritation develops.

**Ingestion:** In case of unintended ingestion, seek medical attention immediately. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.

**Inhalation:** In case of inhalation, remove to fresh air. If not breathing, provide artificial respiration. If breathing is difficult, administer oxygen. Seek medical attention immediately.

### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media:** Water spray jet, dry powder, foam, carbon dioxide.

**Unsuitable extinguishing media:** None known.

**Special hazards in fire:** By products of combustion have not been determined.

**Advice for fire fighters:** Wear self-contained breathing apparatus and personal protective

equipment to prevent inhalation and contact with skins or eyes.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Report emergency situations immediately. Non-essential personnel should be evacuated from the immediate area. Contain the source of the spill if it is safe to do so. Personnel involved in the clean-up of spills should wear the appropriate respiratory protection, gloves, eye protection, and protective coveralls. Observe all applicable regulations when disposing of this material.

**Environmental precautions:** Avoid discharging wash water and contaminated material to floor drains or to the sewer.

**Methods for containment and cleaning up:** Spills should be cleaned up in a manner that minimizes exposure to personnel. Ventilate the area and clean the spill area thoroughly. Collect wash water with absorbent material and transfer all waste to a labeled container for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Where exposure to the liquid may occur appropriate personal protective equipment, including approved respiratory protection, may be required. Use good personal hygiene – wash hands and exposed skin thoroughly with soap and water after contact with substance.

**Conditions for safe storage:** When not in use, store in a tightly sealed container at 20° C.

**Specific end uses:** Used in research applications as a gene tracking assay.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

#### Occupational Exposure Values

**Component Name:** Potassium acetate

WEL – 8-hour TWA: Not established

WEL – STEL: Not established

PEL – 8-hour TWA: Not established

PEL: - STEL: Not established

**Component Name:** Tris-acetate

WEL – 8-hour TWA: Not established

WEL – STEL: Not established

PEL – 8-hour TWA: Not established

PEL: - STEL: Not established

**Component Name:** Magnesium acetate

WEL – 8-hour TWA: Not established

WEL – STEL: Not established

PEL – 8-hour TWA: Not established

PEL: - STEL: Not established

**Component Name:** Cobalt chloride

WEL – 8-hour TWA: Not established

WEL – STEL: Not established

PEL – 8-hour TWA: Not established

PEL: - STEL: Not established

**Component Name:** Terminal transferase enzyme

WEL – 8-hour TWA: Not established  
WEL – STEL: Not established  
PEL – 8-hour TWA: Not established  
PEL: - STEL: Not established

**Component Name:** Oligonucleotides  
WEL – 8-hour TWA: Not established  
WEL – STEL: Not established  
PEL – 8-hour TWA: Not established  
PEL: - STEL: Not established

**Engineering controls:** Effective engineering controls are the primary means of controlling occupational exposure. Respiratory protection should not be used as a substitute for engineering controls.

**Personal protective equipment:** Eye protection, compatible chemical-resistant gloves, and laboratory coat should be worn. In a manufacturing setting, more elaborate forms of personal protective equipment may be required.

**Eye/face protection:** Safety glasses should be worn.

**Hand protection:** Compatible, chemical-resistant gloves should be worn.

**Environmental exposure controls:** Store in tightly sealed containers to prevent releases to the environment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear solution

**Odor:** Odorless.

**Odor threshold:** Not known.

**pH:** Not available

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

**Initial boiling point/boiling range:** Not available

**Flashpoint:** Not applicable

**Evaporation rate:** Not applicable

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

**Lower flammability limit:** Not available

**Upper flammability limit:** Not available

**Vapor pressure:** Not available

**Vapor density:** Not available

**Relative density:** Not available

**Solubility:** Not available

**Octanol/water partition coefficient:** Not available

**Autoignition temperature:** Not available

**Decomposition temperature:** Not available

**Viscosity:** Not available

**Explosive properties:** None identified

**Oxidizing properties:** None identified

## 10. STABILITY AND REACTIVITY

**Reactivity:** None identified

**Chemical stability:** None identified

**Possibility of hazardous reactions:** None identified

**Conditions to avoid:** None identified

**Incompatible materials:** None identified

**Hazardous decomposition products:** Not available.

**11. TOXICOLOGICAL INFORMATION**

**Pharmacology:** No data

**Acute toxicity (rat, oral):**

Potassium acetate: LD<sub>50</sub> (rat, oral) = 3,250 mg/kg

Tris-acetate: LD<sub>50</sub> (rat, oral) = Not available

Magnesium acetate: LD<sub>50</sub> (rat, oral) = Not available

Cobalt chloride: LD<sub>50</sub> (rat, oral) = Not available

**Irritation:** No data

**Corrosivity:** No data

**Sensitization:** No data

**Repeat dose toxicity:** No data

**Carcinogenicity:** No data.

**Mutagenicity:** No data.

**Reproductive effects:** No data

**Likely routes of exposure:** Ingestion, inhalation, dermal contact

**Symptoms of over-exposure:** No data.

**Interactive effects:** No data.

**Other adverse effects:** None known.

## 12. ECOLOGICAL INFORMATION

**Toxicity:** Not available  
**Persistence and degradability:** Not available  
**Bioaccumulative potential:** Not available  
**Mobility in soil:** Not available  
**Results of PBT and vPvB assessments:** Not available  
**Other adverse effects:** Not available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods:** This product must be disposed of in accordance with all local, state, and federal regulations.

## 14. TRANSPORT INFORMATION

**UN Number:** Not regulated  
**Proper Shipping Name:** Not regulated  
**Hazard Class:** Not applicable  
**Packing Group:** Not applicable  
**Environmentally Hazardous:** Not available  
**Special Precautions:** None identified

## 15. REGULATORY INFORMATION

**U.S. Federal Hazardous Waste Regulations:** Not listed

**Toxic Substance Control Act (TSCA):** The following ingredients in this product are listed on the TSCA inventory: Magnesium Acetate, Potassium acetate, Tris-acetate.

**U.S. Clean Water Act:** None of the ingredients contained in this product are listed under the Clean Water Act.

**U.S. Clean Air Act:** None of the ingredients contained in this product are listed under the Clean Air Act.

**Superfund Amendments and Reauthorization Act (SARA) Title III Information:** None of the ingredients contained in this product are listed under SARA Title III.

### State Regulations

**California Proposition 65:** This product does not contain any ingredients known to the State of California to cause cancer, developmental, or reproductive harm.

### Canadian Regulations

**Canadian Environmental Protection Act:** The following ingredients in this product are listed on the Canadian Domestic Substance List: Magnesium acetate, Potassium acetate, Tris-acetate.

### EU Classification

**European Inventory of Existing Chemicals (EINECS):** The following ingredients in this product are included on the European Inventory of Existing Commercial Chemical Substances: Magnesium acetate, Potassium acetate.

## 16. OTHER INFORMATION

### National Fire Protection Association (NFPA) Warnings

Health: 1, Flammability: 0, Reactivity: 0, Other: Not available

**Recommendations/restrictions:** For research and development purposes only used by competently trained personnel.

### Abbreviations and Acronyms

GHS: Global Harmonization System

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative, and Toxic

PEL: Permissible Exposure Limit

STEL: Short-term Exposure Limit

STOT: Specific target organ toxicity

UN: United Nations

vPvT: Very Persistent and Very Bioaccumulative

WEL: Workplace Exposure Limit

**Disclaimer:** KromaTiD, Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. The information contained herein is designated only as guidance for safe handling, storage and use of the substance and is not a specification nor does it guarantee any specific properties. Only competent personnel, within a controlled environment should handle all chemicals. KromaTiD, Inc. shall not be held liable for any loss, injury, or damage from contact with the product.

# KromaTiD

## SAFETY DATA SHEET

For

### FISH Hybridization Buffer A

Effective Date 09 November 2021

Version No: 3.0 Supersedes: 2.0

#### 1. IDENTIFICATION

**Product identifier:** FISH Hybridization Buffer A

**Synonyms:** None

**Identified use:** Used as a buffer in gene tracking assays

**Company name & address:** KromaTiD, Inc., 1880 Industrial Circle, Longmont, CO 80501

**General information telephone:** 1 (303) 525-2375

**Competent person e-mail address:** info@kromatid.com

**Emergency telephone number:** Within the USA and Canada: CHEMTREC: 1 (800) 424-9300.

Outside the US and Canada 1 (703) 527-3887, Collect calls will be accepted.

#### 2. HAZARDS IDENTIFICATION

##### GHS Classification

Health	Environmental	Physical
<b>Acute Toxicity (oral):</b> Not classified <b>Acute Toxicity (dermal):</b> Not classified <b>Acute Toxicity (inhalation):</b> Not classified <b>Skin Corrosion/Irritation:</b> Not classified <b>Serious Eye Damage/Irritation:</b> Not classified <b>Respiratory/Skin Sensitization:</b> Not classified <b>Germ cell mutagenicity:</b> Not tested <b>Carcinogenicity:</b> Not tested <b>Reproductive/developmental:</b> Category 2 <b>Lactation hazard:</b> Unknown <b>STOT (single exposure):</b> Not classified <b>STOT (repeated):</b> Not classified <b>Aspiration hazard:</b> Unknown	Not classified	Not classified

##### GHS Label Elements

**Symbols:**



**Signal Word:** Warning

Hazard Statements

Precautionary Statements



<p>H361: Suspected of damaging fertility or the unborn child.</p>	<p>P201: Obtain special instructions before use.  P202: Do not handle until all safety precautions have been read and understood.  P281: Use personal protective equipment as required.  P308 + P313: If exposed or concerned: Get medical advice/attention.  P405: Store locked up.  P501: Dispose of contents/container in accordance with local regulations.</p>
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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance :** Formamide  
% Content : Trade Secret (w/vol)  
CAS Number: 75-12-7  
EINECS : 200-842-0

**Substance:** Dextran sulfate  
% Content: Trade Secret (w/vol)  
CAS Number: 9011-18-1  
EINECS: Not listed

**Substance:** Sodium chloride and sodium citrate buffer  
% Content: Trade Secret (w/vol)  
CAS Number: Not applicable (mixture)  
EINECS: Not applicable (mixture)

**Substance:** Water  
% Content: Trade Secret (w/vol)  
CAS Number: 7732-18-5  
EINECS: 231-791-2

### 4. FIRST AID MEASURES

**Skin contact:** In case of skin contact, removed contaminated clothing, flush area with large amounts of water for 15 minutes. Use soap if available. Seek medical attention immediately if skin irritation or rash develops.

**Eye contact:** In case of eye contact, flush with copious amounts of water for at least 15 minutes. Seek medical attention immediately if irritation develops.

**Ingestion:** In case of unintended ingestion, seek medical attention immediately. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.

**Inhalation:** In case of inhalation, remove to fresh air. If not breathing, provide artificial respiration. If breathing is difficult, administer oxygen. Seek medical attention immediately.

### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media:** Water spray jet, dry powder, foam, carbon dioxide.

**Unsuitable extinguishing media:** None known.

**Special hazards in fire:** By products of combustion have not been determined.

**Advice for fire fighters:** Wear self-contained breathing apparatus and personal protective equipment to prevent inhalation and contact with skins or eyes.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Report emergency situations immediately. Non-essential personnel should be evacuated from the immediate area. Contain the source of the spill if it is safe to do so. Personnel involved in the clean-up of spills should wear the appropriate respiratory protection, gloves, eye protection, and protective coveralls. Observe all applicable regulations when disposing of this material.

**Environmental precautions:** Avoid discharging wash water and contaminated material to floor drains or to the sewer.

**Methods for containment and cleaning up:** Spills should be cleaned up in a manner that minimizes exposure to personnel. Ventilate the area and clean the spill area thoroughly. Collect wash water with absorbent material and transfer all waste to a labeled container for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Where exposure to the liquid may occur appropriate personal protective equipment, including approved respiratory protection, may be required. Use good personal hygiene – wash hands and exposed skin thoroughly with soap and water after contact with substance.

**Conditions for safe storage:** When not in use, tightly seal the container and store at 20° C.

**Specific end uses:** Used in research applications as a gene tracking assay.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

#### Occupational Exposure Values

**Component Name:** Formamide

WEL – 8-hour TWA: Not established

WEL – STEL: Not established

PEL – 8-hour TWA: Not established

PEL: - STEL: Not established

**Component Name:** Dextran sulfate

WEL – 8-hour TWA: Not established

WEL – STEL: Not established

PEL – 8-hour TWA: Not established

PEL: - STEL: Not established

**Engineering controls:** Effective engineering controls are the primary means of controlling occupational exposure. Respiratory protection should not be used as a substitute for engineering controls.

**Personal protective equipment:** Eye protection, compatible chemical-resistant gloves, and laboratory coat should be worn. In a manufacturing setting, more elaborate forms of personal protective equipment may be required.

**Eye/face protection:** Safety glasses should be worn.

**Hand protection:** Compatible, chemical-resistant gloves should be worn.

**Environmental exposure controls:** Store in tightly sealed containers to prevent releases to the environment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear solution  
**Odor:** Odorless.  
**Odor threshold:** Not known.  
**pH:** Not available  
**Melting point/freezing point:** Not available  
**Initial boiling point/boiling range:** Not available  
**Flashpoint:** Not applicable  
**Evaporation rate:** Not applicable  
**Flammability (solid/gas):** Not applicable  
**Lower flammability limit:** Not available  
**Upper flammability limit:** Not available  
**Vapor pressure:** Not available  
**Vapor density:** Not available  
**Relative density:** Not available  
**Solubility:** Not available  
**Octanol/water partition coefficient:** Not available  
**Autoignition temperature:** Not available  
**Decomposition temperature:** Not available  
**Viscosity:** Not available  
**Explosive properties:** None identified  
**Oxidizing properties:** None identified

## 10. STABILITY AND REACTIVITY

**Reactivity:** None identified  
**Chemical stability:** None identified  
**Possibility of hazardous reactions:** None identified  
**Conditions to avoid:** None identified  
**Incompatible materials:** None identified  
**Hazardous decomposition products:** Not available.

## 11. TOXICOLOGICAL INFORMATION

**Pharmacology:** No data

### **Acute toxicity (oral):**

Formamide: LD<sub>50</sub> (rat, oral) = 5,577 mg/kg

Dextran sulfate: Mammal (species unspecified) LD<sub>50</sub> = 2,500 mg/kg

Sodium chloride: LD<sub>50</sub> (rat, oral) = 3,000 mg/kg

Water: LD<sub>50</sub> (rat, oral) > 90 mL/kg

**Irritation:** No data

<b>Corrosivity:</b> No data
<b>Sensitization:</b> No data
<b>Repeat dose toxicity:</b> No data
<b>Carcinogenicity:</b> No data.
<b>Mutagenicity:</b> No data.
<b>Reproductive effects:</b> This product contains formamide and according to the Canadian Centre for Occupational Health and Safety, meets the WHMIS health effects criteria for teratogenicity and embryotoxicity.
<b>Likely routes of exposure:</b> Ingestion, inhalation, dermal contact  <b>Symptoms of over-exposure:</b> No data.  <b>Interactive effects:</b> No data.
<b>Other adverse effects:</b> None known.
<b>12. ECOLOGICAL INFORMATION</b>
<b>Toxicity:</b> Not available <b>Persistence and degradability:</b> Not available <b>Bioaccumulative potential:</b> Not available <b>Mobility in soil:</b> Not available <b>Results of PBT and vPvB assessments:</b> Not available <b>Other adverse effects:</b> Not available
<b>13. DISPOSAL CONSIDERATIONS</b>
<b>Waste treatment methods:</b> FISH hybridization Buffer A must be disposed of in accordance with all local, state, and federal regulations.

## 14. TRANSPORT INFORMATION

**UN Number:** Not regulated  
**Proper Shipping Name:** Not regulated  
**Hazard Class:** Not applicable  
**Packing Group:** Not applicable  
**Environmentally Hazardous:** Not available  
**Special Precautions:** None identified

## 15. REGULATORY INFORMATION

**U.S. Federal Hazardous Waste Regulations:** Not listed

**Toxic Substance Control Act (TSCA):** The following ingredients in this product are listed on the TSCA inventory: Dextran sulfate, Formamide, Sodium chloride, Water.

**U.S. Clean Water Act:** None of the ingredients contained in this product are listed under the Clean Water Act.

**U.S. Clean Air Act:** None of the ingredients contained in this product are listed under the Clean Air Act.

**Superfund Amendments and Reauthorization Act (SARA) Title III Information:** None of the ingredients contained in this product are listed under SARA Title III.

### State Regulations

**California Proposition 65:** This product does not contain any ingredients known to the State of California to cause cancer, developmental, or reproductive harm.

### Canadian Regulations

**Canadian Environmental Protection Act:** The following ingredients in this product are listed on the Canadian Domestic Substance List: Formamide, Sodium chloride, Water.

### EU Classification

**European Inventory of Existing Chemicals (EINECS):** The following ingredients are included on the European Inventory of Existing Commercial Chemical Substances: Formamide, Sodium chloride, Water.

## 16. OTHER INFORMATION

### National Fire Protection Association (NFPA) Warnings

Health: 1 Flammability: 0 Reactivity: 0 Other: Not available

**Recommendations/restrictions:** For research and development purposes only used by competently trained personnel.

### Abbreviations and Acronyms

GHS: Global Harmonization System  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, Bioaccumulative, and Toxic  
PEL: Permissible Exposure Limit

STEL: Short-term Exposure Limit  
STOT: Specific target organ toxicity  
UN: United Nations  
vPvT: Very Persistent and Very Bioaccumulative  
WEL: Workplace Exposure Limit

**Disclaimer:** KromaTiD, Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. The information contained herein is designated only as guidance for safe handling, storage and use of the substance and is not a specification nor does it guarantee any specific properties. Only competent personnel, within a controlled environment should handle all chemicals. KromaTiD, Inc. shall not be held liable for any loss, injury, or damage from contact with the product.

# KromaTiD

**MATERIAL SAFETY DATA SHEET**  
For  
**FISH hybridization Buffer B**

Effective Date 27 May 2015

Version No: 2.0 Supersedes: 1.0

**1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY/UNDERTAKING THE MANUFACTURING OF THE SUBSTANCE**

Product identifier (as on container labels): FISH hybridization Buffer B  
 Synonyms: None  
 Unique reference number(s): None  
 Identified use: Used in research as a gene tracking assay  
 Company undertaking name & address: KromaTiD, Inc. 200 W. Lake St. #922 (INUCB-05), Fort Collins, CO 80523-0922  
 General information telephone: 1 (970) 492-4462  
 Competent person e-mail address: info@kromatid.com  
 Emergency telephone number: Within the USA and Canada: CHEMTREC: 1 (800) 424-9300. Outside the US and Canada (703) 527-3887, Collect calls will be accepted.

**2. HAZARDS IDENTIFICATION**

**GHS Classification**

Health	Environmental	Physical
Acute Toxicity (oral): Not classified Acute Toxicity (dermal): Not classified Acute Toxicity (inhalation): Not classified Skin Corrosion/Irritation: Not classified Serious Eye Damage/Irritation: Not classified Respiratory/Skin Sensitization: Not classified Germ cell mutagenicity: Not tested Carcinogenicity: Not tested Reproductive/developmental: Not classified Lactation hazard: Unknown STOT (single exposure): Not classified STOT (repeated): Not classified Aspiration hazard: Unknown	Not classified	Not classified

**GHS Label Elements**

**Symbols:** No symbols required

**Single Word:** **WARNING**

<u>Hazard Statements</u>	<u>Precautionary Statements</u>
No hazard statements required.	No precautionary statements required.

<b>3. COMPOSITION/INFORMATION ON INGREDIENTS</b>	
<p><b>Substance</b> : Potassium Acetate  % Content : Trade Secret (w/vol)  CAS Number: 127-08-2  EINECS : 204-822-2</p> <p><b>Substance</b> : Tris-acetate  % Content : Trade Secret (w/vol)  CAS Number: 71-50-1  EINECS : Not listed</p> <p><b>Substance</b> : Magnesium Acetate  % Content : Trade Secret (w/vol)  CAS Number: 142-72-3  EINECS : 205-554-9</p> <p><b>Substance</b> : Cobalt Chloride  % Content : Trade Secret (w/vol)  CAS Number: 1332-82-7  EINECS : Not listed</p>	
<b>4. FIRST AID MEASURES</b>	
<p>Skin contact: In case of skin contact, removed contaminated clothing, flush area with large amounts of water for 15 minutes. Use soap if available. Seek medical attention immediately if skin irritation or rash develops.</p> <p>Eye contact: In case of eye contact, flush with copious amounts of water for at least 15 minutes. Seek medical attention immediately if irritation develops.</p> <p>Ingestion: In case of unintended ingestion, seek medical attention immediately. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.</p> <p>Inhalation: In case of inhalation, remove to fresh air. If not breathing, provide artificial respiration. If breathing is difficult, administer oxygen. Seek medical attention immediately.</p>	
<b>5. FIRE FIGHTING MEASURES</b>	
<p>Suitable extinguishing media: Water spray jet, dry powder, foam, carbon dioxide.</p> <p>Unsuitable extinguishing media: None known.</p> <p>Special hazards in fire: By products of combustion have not been determined.</p> <p>Advice for fire fighters: Wear self-contained breathing apparatus and personal protective equipment to prevent inhalation, and contact with skins or eyes.</p>	
<b>6. ACCIDENTAL RELEASE MEASURES</b>	
<p>Personal precautions, protective equipment, and emergency procedures: Report emergency situations immediately. Non-essential personnel should be evacuated from the immediate area. Contain the source of the spill if it is safe to do so. Personnel involved in the clean-up of spills should wear the appropriate respiratory protection, gloves, eye protection, and protective coveralls. Observe all applicable regulations when disposing of this material.</p> <p>Environmental precautions: Avoid discharging wash water and contaminated material to floor drains or to the sewer.</p> <p>Methods for containment and cleaning up: Spills should be cleaned up in a manner that</p>	



minimizes exposure to personnel. Ventilate the area and clean the spill area thoroughly. Collect wash water with absorbent material and transfer all waste to a labeled container for disposal.

## 7. HANDLING AND STORAGE

Precautions for safe handling: Where exposure to the liquid may occur appropriate personal protective equipment, including approved respiratory protection, may be required. Use good personal hygiene – wash hands and exposed skin thoroughly with soap and water after contact with substance.

Conditions for safe storage: When not in use, tightly seal the container and store at  $\leq -65^{\circ}\text{C}$  ( $\leq -85^{\circ}\text{F}$ ). Keep away from ignition sources including electrostatic charge, heat, sparks, and open flame. Keep this drug out of the reach of children.

Specific end uses: Used in research applications as a gene tracking assay.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

#### Occupational Exposure Values

**Component Name:** Potassium acetate

WEL – 8-hour TWA: Not established

WEL – STEL: Not established

PEL – 8-hour TWA: Not established

PEL: - STEL: Not established

**Component Name:** Tris-acetate

WEL – 8-hour TWA: Not established

WEL – STEL: Not established

PEL – 8-hour TWA: Not established

PEL: - STEL: Not established

**Component Name:** Magnesium acetate

WEL – 8-hour TWA: Not established

WEL – STEL: Not established

PEL – 8-hour TWA: Not established

PEL: - STEL: Not established

**Component Name:** Cobalt chloride

WEL – 8-hour TWA: Not established

WEL – STEL: Not established

PEL – 8-hour TWA: Not established

PEL: - STEL: Not established

Engineering controls: Effective engineering controls are considered to be the primary means of controlling occupational exposure. Respiratory protection should not be used as a substitute for engineering controls.

Personal protective equipment: Eye protection, compatible chemical-resistant gloves, and laboratory coat should be worn. In a manufacturing setting, more elaborate forms of personal protective equipment may be required.

Eye/face protection: Safety glasses should be worn.

Hand protection: Compatible, chemical-resistant gloves should be worn.

Environmental exposure controls: Store in tightly sealed containers to prevent releases to the environment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear solution  
Odour: Odorless.  
Odour threshold: Not known.  
pH: Not available  
Melting point/freezing point: Not available  
Initial boiling point/boiling range: Not available  
Flashpoint: Not applicable  
Evaporation rate: Not applicable  
Flammability (solid/gas): Not applicable  
Lower flammability limit: Not available  
Upper flammability limit: Not available  
Vapor pressure: Not available  
Vapor density: Not available  
Relative density: Not available  
Solubility(ies): Not available  
Octanol/water partition coefficient: Not available  
Autoignition temperature: Not available  
Decomposition temperature: Not available  
Viscosity: Not available  
Explosive properties: None identified  
Oxidizing properties: None identified

## 10. STABILITY AND REACTIVITY

Reactivity: None identified  
Chemical stability: None identified  
Possibility of hazardous reactions: None identified  
Conditions to avoid: None identified  
Incompatible materials: None identified  
Hazardous decomposition products: Not available.

## 11. TOXICOLOGICAL INFORMATION

Pharmacology: No data

Acute toxicity (oral):  
Potassium acetate: Rat LD<sub>50</sub> 3,250 mg/kg  
Tris-acetate: Not available  
Magnesium acetate: Oral LD<sub>50</sub> not available  
Cobalt chloride: Not available

Irritation: No data

Corrosivity: No data

Sensitisation: No data

Repeat dose toxicity: No data

Carcinogenicity: No data.

Mutagenicity: No data.

Reproductive effects: No data

Likely routes of exposure: Ingestion, inhalation, dermal contact

Symptoms of over-exposure: No data.

Interactive effects: No data.

Other adverse effects: None known.

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## 12. ECOLOGICAL INFORMATION

Toxicity: Information not available

Persistence and degradability: Not available

Bioaccumulative potential: Not available

Mobility in soil: Not available

Results of PBT and vPvB assessments: Not available

Other adverse effects: Information not available

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## 13. DISPOSAL CONSIDERATIONS

Waste treatment methods: FISH hybridization B must be disposed of in accordance with local regulations.

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**14. TRANSPORT INFORMATION**

UN Number: Not regulated  
Proper Shipping Name: Not regulated  
Hazard Class: Not applicable  
Packing Group: Not applicable  
Environmentally Hazardous (Y/N): Not available  
Special Precautions: None identified

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**15. REGULATORY INFORMATION**

U.S. Federal Hazardous Waste Regulations: Not listed  
Toxic Substance Control Act (TSCA): The following ingredients in this product are not listed on the TSCA inventory: Cobalt chloride.  
U.S. Clean Water Act: None of the ingredients contained in this product are listed under the Clean Water Act.  
U.S. Clean Air Act: None of the ingredients contained in this product are listed under the Clean Air Act.  
Superfund Amendments and Reauthorization Act (SARA) Title III Information: None of the ingredients contained in this product are listed under SARA Title III.

**State Regulations**

California Proposition 65: This product does not contain any ingredients known to the State of California to cause cancer, developmental, or reproductive harm.  
Canadian Environmental Protection Act: The following ingredient is not listed on the Canadian Domestic Substance List:  
Canadian Workplace Hazardous Materials Information System (WHMIS): The following ingredients are listed in WHMIS: Formamide

**EU Risk (R) and Safety (S) Phrases:**

R63: Possible risk of harm to the unborn child  
S2 Keep out of reach of children  
S13 Keep away from food, drink and animal feeding stuffs  
S20 When using do not eat or drink  
S39 Wear eye/face protection  
S36 Wear suitable protective clothing  
S46 If swallowed, seek medical advice immediately and show this container or label

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**16. OTHER INFORMATION**

National Fire Protection Association (NFPA) Warnings  
Health: 1 Flammability: 0 Reactivity: 0 Other: Not available  
Recommendations/restrictions: For research and development purposes only used by competently trained personnel.

**Abbreviations and Acronyms**

GHS: Global Harmonization System  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, Bioaccumulative, and Toxic  
PEL: Permissible Exposure Limit  
STEL: Short-term Exposure Limit  
TOST: Target organ-specific toxicity  
UN: United Nations  
vPvT: Very Persistent and Very Bioaccumulative  
WEL: Workplace Exposure Limit

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**Disclaimer:** KromaTiD, Inc. believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. The information contained herein is designated only as guidance for safe handling, storage and use of the substance and is not a specification nor does it guarantee any specific properties. Only competent personnel, within a controlled environment should handle all chemicals. KromaTiD, Inc. shall not be held liable for any loss, injury or damage from contact with the product.