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
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

Signal Word: No signal word required

Hazard Statements	Precautionary Statements
No hazard statements required.	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 20º 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_{50} (rat, oral) = 3,250 mg/kg

Tris-acetate: LD_{50} (rat, oral) = Not available

Magnesium acetate: LD_{50} (rat, oral) = Not available

Cobalt chloride: LD_{50} (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 know 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
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:** Category 2 **Lactation hazard:** Unknown **STOT (single exposure):** Not classified **STOT (repeated):** Not classified **Aspiration hazard:** Unknown	Not classified	Not classified

GHS Label Elements

Symbols: 

Signal Word: Warning

Hazard Statements	Precautionary Statements

H361: Suspected of damaging fertility or the unborn child.	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.

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 20º 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_{50} (rat, oral) = 5,577 mg/kg

Dextran sulfate: Mammal (species unspecified) LD_{50} = 2,500 mg/kg

Sodium chloride: LD_{50} (rat, oral) = 3,000 mg/kg

Water: LD_{50} (rat, oral) > 90 mL/kg

Irritation: No data

Corrosivity: No data

Sensitization: No data

Repeat dose toxicity: No data

Carcinogenicity: No data.

Mutagenicity: No data.

Reproductive effects: 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.

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: 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 know 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

Hazard Statements	Precautionary Statements
No hazard statements required.	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

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 ≤ -65º C (≤ -85°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_{50} 3,250 mg/kg
Tris-acetate: Not available
Magnesium acetate: Oral LD_{50} 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.

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

13. DISPOSAL CONSIDERATIONS

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

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

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 know 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

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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