

## MATERIAL SAFETY DATA SHEET

AccuPrep™ Plasmid Extraction Kit  
AccuPrep™ Genomic DNA Extraction Kits  
AccuPrep™ Viral RNA Extraction Kits  
AccuPrep™ Gel Purification Kits  
AccuPrep™ GMO DNA Extraction Kits  
AccuPrep™ PCR Purification Kits  
AccuPrep™ Stool DNA Extraction Kits  
DNA PrepMate™  
DNA PrepMate™-M  
Viral RNA PrepMate™  
Blood RNA PrepMate™  
Tissue RNA PrepMate™

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### Section 1 – Safety Data for EDTA (Ethylenediaminetetraacetic Acid)

#### Composition / Information on Ingredients

CAS #: 60-00-4

MF: C10H16N2O8

EC NO: 200-449-4

Do not contain any animal products.

#### Hazards Identification

Label precautionary statements

Irritant

Irritating to eyes, respiratory system and skin

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

#### First Aid Measures

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

In case of contact, immediately wash skin with soap and copious amounts of water.

If inhaled, remove to fresh air. If not breathing give artificial respiration.

If breathing is difficult, give oxygen.

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Wash contaminated clothing before reuse.

#### Fire Fighting Measures

Extinguishing Media

Water spray

Carbon dioxide, dry chemical powder or appropriate foam

Special firefighting procedures

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes

Unusual fire and explosions hazards

Emits toxic fumes under fire conditions

#### Exposure Controls / Personal Protection

Chemical safety goggles

Compatible chemical-resistant gloves

NIOSH/MSHA-approved respirator

Safety shower and eye bath  
 Mechanical exhaust required  
 Do not breathe dust  
 Avoid contact with eyes, skin, and clothing  
 Wash thoroughly after handling  
 Irritant  
 Keep tightly closed  
 Store in a cool dry place

**Physical and Chemical Properties**

Appearance and odor  
 White powder

**Stability and Reactivity**

Incompatibilities  
 Strong oxidizing agents  
 Strong bases  
 Copper, copper alloys  
 Nickel  
 Hazardous combustion or decomposition products  
 Toxic fumes of:  
 Carbon monoxide, carbon dioxide  
 Nitrogen oxides

**Toxicological Information**

Acute effects  
 May be harmful by inhalation, ingestion, or skin absorption  
 Causes eye and skin irritation  
 Material is irritating to mucous membranes and upper respiratory tract.  
 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  
 RTECS #: AH4025000  
 Acetic acid (Ethylenedinitrilo) tetra-  
 Toxicity Data  
 IPR-RAT LD50:397 MG/KG AHRTAN 13,295,1962  
 ORL-MUS LD50:30 MG/KG FCTOD7 29,845,1991  
 IPR-MUS LD50:250 MG/KG NTIS\*\* AD691-490  
 IVN-MUS LD50:28500 UG/KG JJPAAZ 63,187,1993  
 Target Organ Data  
 Behavioral (Convulsions or effect on seizure threshold)  
 Only selected registry of toxic effects of chemical substances (RTECS) data is presented here. See actual entry in RTECS for complete information.

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**Section 2– Safety Data for Tris (Trizma Base)**

**Ingredients / Identity Information**

Proprietary: No  
 Ingredient: 1,3-propanediol, 2-amino-2-(hydroxymethyl), tromethamine  
 Ingredient Sequence Number: 01  
 NIOSH (RTECS) Number: TY2900000  
 CAS Number: 77-86-1

**Physical / Chemical Characteristics**

Appearance and odor: White crystals  
Boiling point: 426.2-428F  
Melting point: (See supp)

**Fire and Explosion Hazard Data**

Extinguishing Media: Water spray, CO<sub>2</sub>, dry chemical powder/appropriate foam.  
Special fire fighting proc: Wear scba & protective clothing.  
Unusual fire and expl hazard: Emits toxic fumes under fire conditions

**Reactivity Data**

Stability: Yes  
Cond to avoid (Stability): Moisture  
Materials to avoid: Bases, oxidizing agents  
Hazardous decomp products: Thermal combustion: CO, CO<sub>2</sub>, nitrogen oxides.  
Hazardous poly occur: No

**Health Hazard Data**

LD50-LC50 MIXTURE: ORAL LD50(RAT): 5900 MG/KG  
Route of entry - Inhalation: Yes  
Route of entry - Skin: Yes  
Route of entry - Ingestion: Yes  
Health has acute and chronic: May be harmful by inhalation, ingestions/skin absorption. Eyes/skin: Irritation.  
Inhalation: Irritating to mucous  
Membranes & upper respiratory tract  
Carcinogenicity - NTP: No  
Carcinogenicity - IARC: No  
Carcinogenicity - OSHA: No  
Explanation carcinogenicity: None  
Signs/Symptoms of overexp: Irritation  
Emergency/First aid proc: Eyes/skin: Flush w/copious amounts of water for 15 minutes.  
Inhalation: Remove to fresh air. Give CPR/oxygen if needed.  
Ingestion: Wash out mouth w/water if conscious. Obtain medical attention in all cases

**Precautions for Safe Handling and Use**

Steps if matl released/spill: Wear respirator, chemical safety goggles, rubber boots & heavy rubber gloves, sweep up, place in a bag & hold for waste disposal.  
Avoid raising dust. Ventilate area & wash site after material pick up is complete.  
Wasted disposal method: Dissolve/mix W/A combustible solvent & burn in a chemical incinerator equipped W/AN afterburner & scrubber, IAW/federal, state local regulations.  
Precautions -Handling/Storing: Store in a cool dry place. Keep tightly closed.  
Other precautions: Avoid prolonged/repeated exposure. Avoid contact w/eyes, skin/clothing. Don't breathe dust.

**Control Measures**

Respiratory protection: Use NIOSH/MSHA approved respirator.  
Ventilation: Mechanical exhaust required.  
Protective gloves: Compatible chemical resistant  
Eye protection: Chemical safety goggles  
Other protective equipment: Safety shower & eye bath, protective clothing.  
Work hygienic practices: Remove/laundry contaminated clothing & shoes before reuse. Wash thoroughly after handling.  
Suppl. safety & health data: Melting point: 340.16-342.14F.

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**Section 3 – Safety Data for Hydrochloric Acid****Ingredients/Identity Information**

Appearance: Clear colorless or slightly yellow liquid with pungent odour. Fuming.

Melting point: -25 C

Boiling point: 109 C

Specific gravity: 1.19

Vapour Pressure:

Flash point:

Explosion limits:

Autoignition Temperature:

**Health Hazard Data**

Stable. Avoid heat, flames. Incompatible with most common metals, amines, metal oxides, acetic anhydride, propiolactone, vinyl acetate, mercuric sulphate, calcium phosphide, formaldehyde, alkalies, carbonates, strong bases, sulphuric acid, chlorosulphonic acid.

**Toxicology**

Extremely corrosive. Inhalation of vapour can cause serious injury. Ingestion may be fatal. Liquid can cause severe damage to skin and eyes. TLV 5 PPM.

**Personal Protection**

Safety glasses or face mask, gloves. Effective ventilation.

**Ingredients/Identity Information**

Proprietary: No

Ingredient: Monohydrochloride, guanidinium chloride

Ingredient sequence number: 01

Percent: 99

NIOSH (RTECS) number: MF4300000

CAS number: 50-01-1

**Physical/Chemical Characteristics**

Appearance and odor: White crystalline powder

Melting point: 365-372.2F

**Fire and Explosion Hazard Data**

Extinguishing media: Water spray, CO<sub>2</sub>, dry chemical powder/appropriate foam.

Special fire fighting proc: Wear scba & protective clothing.

Unusual fire and expl hazards: Emits toxic fumes under fire conditions.

**Reactivity Data**

Stability: Yes

Cond to avoid (stability): Moisture

Materials to avoid: Strong oxidizing agents

Hazardous decomp products: Combustion: CO, CO<sub>2</sub>, nitrogen oxides, hydrogen chloride gas.

Hazardous poly occur: No

**Health Hazard Data**

LD50-LC50 MIXTURE: ORAL LD50(RAT): 475 MG/KG

Route of entry - Inhalation: Yes

Route of entry – Skin: Yes

Route of entry - Ingestion: Yes

Health has acute and chronic: Harmful if ingested, inhaled/absorbed through skin, causes severe irritation. High concentrations are extremely destructive to tissues of the mucous membranes & upper respiratory tract, eyes & skin. May cause nervous system disturbances & burning.

Carcinogenicity - NTP: No

Carcinogenicity - IARC: No

Carcinogenicity - OSHA: No

Explanation carcinogenicity: None

Signs/Symptoms of overexp: Irritation, burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting.

Emergency/First aid proc: Eyes/skin: Immediately flush w/copious amounts of water for 15 minutes. Inhalation: Remove to fresh air. Give CPR/ oxygen if needed. Ingestion: Wash out mouth w/water if conscious. Obtain medical attention in all cases.

### Precautions for Safe Handling and Use

Steps if matl released/spill: Wear SCBA, rubber boots & heavy rubber gloves, sweep up, place in a bag & hold for waste disposal. Avoid raising dust. Ventilate area & wash area after material pickup is complete.

Waste disposal method: Dissolve/mix material w/a combustible solvent & burn in a chemical incinerator equipped w/an afterburner & scrubber, IAW/federal, state & local regulations.

Precautions-Handling/storing: Keep tightly closed. Store in a cool dry place.

Other precautions: Avoid inhalation. Don't get in eyes, skin/clothing.

Avoid prolonged/repeated exposure. Hygroscopic.

### Control Measures

Respiratory Protection: Wear appropriate NIOSH/MSHA approved respirator.

Ventilation: Chemical fume hood

Protective gloves: Chemical resistant

Eye protection: Safety goggles/faceshield (8 inch min)

Other protective equipment: Protective clothing, safety shower & eye bath.

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## Section 4 – Safety Data for SDS (Lauryl Sulfate)

### Composition/Information on Ingredients

CAS #: 151-21-3

EC NO: 205-788-1

### Hazards Identification

Label precautionary statements

Toxic (USA)

Harmful (EU)

Harmful by inhalation and if swallowed.

May cause sensitization by inhalation.

Irritating to eyes, respiratory system and skin.

Risk of serious damage to eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing.

Do not breathe vapor.

### First Aid Measures

In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Assure adequate flushing of the eyes by separating the eyelids with fingers.

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## **Section 5 – Safety Data for Potassium Acetate**

### **Composition/Information on Ingredients**

CAS #: 127-08-2

MF: C<sub>2</sub>H<sub>3</sub>KO<sub>2</sub>

EC NO: 204-822-2

Synonyms

Diuretic salt \* octan draselny (Czech) \* Potassium Acetate \*

### **Hazards Identification**

Label precautionary statements

Irritant

Irritating to eyes, respiratory system and skin.

In case of contact with eyes, rinse immediately with plenty of water and seek advice. Wear suitable protective clothing.

### **First Aid Measures**

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

If inhaled, remove to fresh air. If not breathing give artificial respiration.

If breathing is difficult, give oxygen.

In case of contact, immediately wash skin with soap and copious amounts of water.

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

### **Fire fighting Measures**

Extinguishing media

Water spray

Carbon dioxide, dry chemical powder or appropriate foam

Special firefighting procedures

Wear self – contained breathing apparatus and protective clothing to prevent contact with skin and eyes

Unusual fire and explosions hazards

Emits toxic fumes under fire conditions

### **Exposure Controls/Personal Protection**

Safety shower and eye bath

Mechanical exhaust required

Wash thoroughly after handling

Do not breathe dust

Avoid contact with eyes, skin and clothing

Avoid prolonged or repeated exposure

NIOSH/MSHA-approved respirator

Compatible chemical – resistant gloves

Chemical safety goggles

Keep tightly closed

Store in a cool dry place

### **Toxicological Information**

Acute effects

Causes skin irritation

Causes eye irritation

Material is irritating to mucous membranes and upper respiratory tract

May be harmful by inhalation, ingestion, or skin absorption

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

RTECS #: AJ3325000

Acetic Acid, potassium salt

Toxicity data

ORL-RAT LD50:3250 MG/KG

AIHAAP 30,470,1969

Only selected registry of toxic effects of chemical substances (RTECS) data is presented here. See actual entry is RTECS for complete information.

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## Section 6 – Safety Data for Acetic Acid, Glacial Composition/Information on Ingredients

CAS #: 64-19-7

MF: C2H4O2

EC NO: 200-580-7

Synonyms

Acetic Acid (ACGIH:OSHA) \* Acetic Acid, glacial \* Acide Acetique (French) \* Acido Acetico (Italian) \* Azijnzuur (Dutch) \* Essigsaeure (German) \* Ethanoic Acid \* Ethylic Acid \* Glacial Acetic Acid \* Kyselina Octova (Czech) \* Methanecarboxylic Acid \* Octowy Kwas (Polish) \* Vinegar Acid \*

### Hazards Identification

Label precautionary statements

Combustible (USA)

Flammable (EU)

Corrosive

Causes severe burns

Harmful in contact with skin

Lachrymator

Target organ(s):

Teeth

Kidneys

Keep away from sources of ignition – No smoking

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing, gloves and eye/face protection

### First Aid Measures

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

If inhaled, remove to fresh air. If not breathing give artificial respiration.

If breathing is difficult, give oxygen.

In case of skin contact, flush with copious amounts of water for at least 15 minutes.

Remove contaminated clothing and shoes. Call a physician.

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. Call a physician.

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## Section 7– Safety Data for RNase (Ribonuclease A) Composition/Information on Ingredients

CAS #: 9001-99-4  
EC NO: 232-646-6

**Hazards Identification**

Label precautionary statements

Caution:

Avoid contact and inhalation.

**First Aid Measures**

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

If inhaled, remove to fresh air.

If breathing becomes difficult, call a physician.

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes, call a physician.

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. Call a physician.

**Fire Fighting Measures**

Extinguishing media

Noncombustible

Use extinguishing media appropriate to surrounding fire conditions

Special firefighting procedures

Wear self – contained breathing apparatus and protective clothing to prevent contact with skin and eyes

Unusual fire and explosions hazards

Emits toxic fumes under fire conditions

**Exposure Controls/Personal Protection**

NIOSH/MSHA-Approved respirator

Compatible chemical – Resistant gloves

Chemical safety goggles

Safety shower and eye bath

Mechanical exhaust required

Avoid inhalation

Avoid contact with eyes, skin and clothing

Avoid prolonged or repeated exposure

Wash thoroughly after handling

Keep tightly closed

Store in a cool DR