SA01210

9623

Kit# 36R Investigating Plant Macronutrients Using Hydroponics



Pictogram

Version: SDS 133.01.00 Revision Date: November 3, 2015

1. IDENTIFICATION

1.1 Product Identifiers

Product Name:

Ca(NO₃)₂ Solution

Alternative names: Calcium nitrate water solution.

Product Number: 36-1EA

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For laboratory and educational use only

1.3 Details of the supplier of the safety data sheet
Company: LAB-AIDS®, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA
Telephone: +1 800 381 8003.

Telephone: Fax: +1 631 820 8268

1.4 Emergency telephone number: Emergency number: CHEMTREC 1 800 424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS classification

Eye Irrit. (Category 2A), H319

Acute Toxicity, Oral (Category 4), H302

2.2 Label elements, including precautionary statements

Signal word: Warning Hazards statements: H319 - Causes eye irritation, H302-Harmful if swallowed

P264 - Wash exposed skin thoroughly after handling, P280 - Wear protective gloves, eye protection. Precautionary statements:

2.3 Hazards not otherwise classified: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Not applicable

3.2 Mixture

3-1 · · · · · · · · · · · · · · · · · · ·			
Chemical Name	Product identifier	%	GHS-US classification
Water	CAS# 7732-18-5	40-80%	Not classified
Calcium nitrate	CAS# 13477-34-4	20-60%	Oral Tox 4, H302; Ox. Solid 3, H272 ; Eye Irrit. 2A, H319

3.3 Chemicals where a trade secret is claimed: Any concentration shown as a range is to protect confidentiality, or is it due to batch variation

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek medica attention if necessary

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation develops

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Nonflammable liquid

Suitable extinguishing media: Use TriClass, dry chemical extinguisher for surrounding fires.

- 5.2 Special hazard arising from the substance or mixture: Releases Nitrogen oxides when heated to decomposition.
- 5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.
- 6.2 Emergency procedures: Restrict unprotected personnel from the area.
- 6.3 Methods and material used for containment and cleanup procedure: Contain the spill with an inert absorbent material and deposit in a sealed bag or container. Ventilate and wash spill area with soap and water.

- 7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Avoid breathing vapor. Use with adequate ventilation. Wash hands thoroughly after handling.
- 7.2 Storage: Keep container in cool, well-ventilated area.
- 7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: None

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits.

Respiratory protection: None should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid Appearance: Cloudy . Odor: None. pH: Not available

Vapor Pressure (mm Hg): Not available Vapor Density: Not available Evaporation Rate: Not available

Viscosity: Not available Flash point: N/A Autoignition: N/A Boiling point: Not available Melting point: Not available Freezing point: Not available Decomposition temp: Not available Solubility: Miscible in water.

Specific gravity (H₂O = 1): Not available Percent volatile (%): Not available Molecular formula: Mixture Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Incompatible materials.

Incompatibilities: Reducing agents, combustible materials, organic materials. Hazardous decomposition: Not available.

Hazardous decomposition: Not available. Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: May cause eye irritation. Skin: May cause skin irritation. Inhalation: Not expected to cause any acute reaction. Ingestion: May cause gastrointestinal irrigation. May be harmful if swallowed. Clinical signs associated with nitrate poisoning include: abdominal pain, nausea, vomitirig, diarrhea. Under some circumstances methemoglobinemia occurs in some individuals when the nitrate is converted by bacteria in stomach to nitrite.

Toxicological data

Acute oral toxicity ORAL LDso: 3900mg/kg [Rat], as calcium nitrate

Acute dermal toxicity LD₅₀: Not available Acute vapor toxicity LC₅₀: Not available

Carcinogenicity:

California prop 65: Not listed

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

14. TRANSPORT INFORMATION

UN number: N/A Shipping name: N/A Hazard Class: N/A Packing group: N/A Exceptions: Ltd Qty. N/A

15. REGULATORY INFORMATION

TSCA 8(b) inventory: Listed

16. OTHER INFORMATION

Disclaimer

The Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. LAB-AIDS® makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation and verification. The data should not be confused with local, state, federal regulations, or insurance mandates, and CONSTITUTE NO WARRANTY. Any use of these data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and 'egu lations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond LAB-AIDS, Inc. and may be beyond our. knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Version: SDS_133.01.00



Version: SDS_134.01.00 Revision Date: November 3, 2015

1. IDENTIFICATION

1.1 Product Identifiers

KNO₃ Solution

Alternative names:

Potassium nitrate water solution.

Product Number: 36-2EA

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses:

Product Name:

For laboratory and educational use only

1.3 Details of the supplier of the safety data sheet
Company: LAB-AIDS®, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA
Telephone: +1 800 381 8003.

Fax:

+1 631 820 8268

1.4 Emergency telephone number: Emergency number: CHEMTREC 1 800 424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture GHS classification

Eye Irrit. (Category 2A), H319 Skin Irrit. (Category 2), H315



Pictogram:

2.2 Label elements, including precautionary statements

Signal word:

Warning

H319 - Causes eye irritation, H315-Causes skin irritation.

Hazards statements: Precautionary statements:

P264 - Wash exposed skin thoroughly after handling, P280 - Wear protective gloves, eye protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Not applicable

Chemical Name	Product identifier	%	GHS-US classification
Water Potassium nitrate	CAS# 7732-18-5 CAS# 7757-79-1	70-90% 10-30%	

3.3 Chemicals where a trade secret is claimed: Any concentration shown as a range is to protect confidentiality, or is it due to batch variation.

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek medical attention if necessary

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation develops.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Nonflammable liquid

Suitable extinguishing media: Use TriClass, dry chemical extinguisher for surrounding fires.

5.2 Special hazard arising from the substance or mixture: Releases Nitrogen exides when heated to decomposition.

5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.

6.2 Emergency procedures: Restrict unprotected personnel from the area.

6.3 Methods and material used for containment and cleanup procedure: Contain the spill with an inert absorbent material and deposit in a sealed bag or container. Ventilate and wash spill area with soap and water.

7. HANDLING AND STORAGE

7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Avoid breathing vapor. Use with adequate ventilation. Wash hands thoroughly after handling.

7.2 Storage: Keep container in cool, well-ventilated area.

7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: None

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits.

Respiratory protection: None should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid Appearance: Clear. Odor: None. pH: Not available

Vapor Pressure (mm Hg): Not available Vapor Density: Not available Evaporation Rate: Not available

Viscosity: Not available Flash point: N/A Autoignition: N/A

Boiling point: Not available Melting point: Not available Freezing point: Not available Decomposition temp: Not available Solubility: Miscible in water.

Specific gravity (H2O = 1): Not available Percent volatile (%): Not available Molecular formula: Mixture Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Incompatible materials.

Incompatibilities: Reducing agents, combustible materials, organic materials. Hazardous decomposition: Not available.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: May cause eye irritation. Skin: May cause skin irritation. Inhalation: Not expected to cause any acute reaction. Ingestion: May cause gastrointestinal irrigation. May be harmful if swallowed. Clinical signs associated with nitrate poisoning include: abdominal pain, nausea, vomiting, diarrhea. Under some circumstances methemoglobinemia occurs in some individuals when the nitrate is converted by bacteria in stomach to nilrite.

Toxicological data

Acute oral toxicity ORAL LDso: 3015mg/kg [Rat], as potassium nitrate Acute dermal toxicity LDso: Not available Acute vapor toxicity LC50: Not available

Carcinogenicity:

California prop 65: Not listed

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

14. TRANSPORT INFORMATION

UN number: N/A Shipping name: N/A Hazard Class: N/A Packing group: N/A Exceptions: Ltd Qty. N/A

15. REGULATORY INFORMATION

TSCA 8(b) inventory: Listed

16. OTHER INFORMATION

The Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. LAB-AIDS® makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation and verification. The data should not be confused with local, state, federal regulations, or insurance mandates, and CONSTITUTE NO WARRANTY. Any use of these data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and eguilations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond LAB-AIDS, Inc. and may be beyond (ur knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).



Pictogram: Not classified

Version: SDS_135.01.00 Revision Date: November 3, 2015

1. IDENTIFICATION

1.1 Product Identifiers

Product Name: MgSO₄ and PH₂SO₄ Solution.

Magnesium sulfate and potassium phosphate water solution. Alternative names:

Product Number: 36-3EA

1.2 Relevant identified uses of the substance or mixture and uses advised against

For laboratory and educational use only identified uses:

1.3 Details of the supplier of the safety data sheet
Company: LAB-AIDS®, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA

+1 800 381 8003. Telephone: +1 631 820 8268 Fax:

1.4 Emergency telephone number: Emergency number: CHEMTREC 1 800 424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture GHS classification Not classified

2.2 Label elements, including precautionary statements

Signal word: Not classified Hazards statements: Not classified Precautionary statements: Not classified

2.3 Hazards not otherwise classified: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Not applicable

3 2 Mivturo

Chemical Name	Product identifier	%	GHS-US classification
Water Potassium phosphate Magnesium sulfate	CAS# 7732-18-5 CAS#7778-77-0 CAS#10034-99-8	5-10%	Not classified Not classified Not classified

3.3 Chemicals where a trade secret is claimed: Any concentration shown as a range is to protect confidentiality, or is it due to batch variation

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek medical attention if necessary.

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation develop.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Nonflammable liquid

Suitable extinguishing media: Use TriClass, dry chemical extinguisher for surrounding fires.

5.2 Special hazard arising from the substance or mixture: Not available.

5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.
- 6.2 Emergency procedures: Restrict unprotected personnel from the area.
- 6.3 Methods and material used for containment and cleanup procedure: Mop up the area.

- 7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Wash hands thoroughly after handling.
- 7.2 Storage: Keep container in cool, well-ventilated area.
- 7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: Not classified

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits.

Respiratory protection: Non should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid. Appearance: Clear. Odor: Not available pH: Not available

Vapor Pressure (mm Hg): Not available Vapor Density: Not available Evaporation Rate: Not available

Viscosity: N/A Flash point: N/A Autoignition: N/A Boiling point: 212°F/100°C Melting point: ~0 °C/32 °F Freezing point: 0 °C/32 °F

Decomposition temp: not available

Solubility: Miscible.

Specific gravity (H₂O = 1): 1.00 at 20°C Percent volatile (%): >99 Wt% Molecular formula: Mixture Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions to Avoid: Not available.
Incompatibilities: Not available
Hazardous decomposition: Not available.
Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eyes: No information available. Skin: No information available. Inhalation: No information available. Ingestion: Ingestion: Ingestion of large amounts may cause abdominal discomfort, nausea, vomiting, diarrhea.

Toxicological data

Acute oral toxicity ORAL LD₅₀: 4640mg/kg[Rat] as potassium phosphate. Acute oral toxicity ORAL LD₅₀: Not available for magnesium sulfate. Acute vapor toxicity IHL-LC₅₀: Not available

DERMAL LDso: Not available

Carcinogenicity:

California prop 65: Not classified

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

14. TRANSPORT INFORMATION

UN number: N/A Shipping name: N/A Hazard Class: N/A Packing group: N/A Exceptions: Ltd Qty. N/A

15. REGULATORY INFORMATION

TSCA-listed.

16. OTHER INFORMATION

Disclaimer

The Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. LAB-AIDS® makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation and verification. The data should not be confused with local, state, federal regulations, or insurance mandates, and CONSTITUTE NO WARRANTY. Any use of these data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond LAB-AIDS, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Version: SDS 135.01.00



Version: SDS_136.01.00

Revision Date: November 3, 2015

1. IDENTIFICATION

1.1 Product Identifiers

CaCl₂ Solution Product Name:

Alternative names: Calcium chloride water solution.

Product Number: 36-4EA

1.2 Relevant identified uses of the substance or mixture and uses advised against

For laboratory and educational use only Identified uses:

1.3 Details of the supplier of the safety data sheet

Company: Lab-Aids, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA

Telephone: +1 800 381 8003. +1 631 820 8268 Fax:

1.4 Emergency telephone number

CHEMTREC 1 800 424-9300. Emergency number:

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS classification

Acute Tox. Oral (Category 4), H302 Acute Tox. Skin (Category 5), H313 Eye Irrit. (Category 2A), H319

2.2 Label elements, including precautionary statements

Warning Signal word:

H302-Harmful if swallowed, H319- Causes serious eye irritation. H313-May be harmful in contact with skin. Hazards statements:

Precautionary statements: P264 - Wash skin thoroughly after handling, P280 - Wear protective gloves, eye protection

2.3 Hazards not otherwise classified: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: N/A

3.2 Mixture: Chemical Name Product identifier GH5-US classification Water CAS# 7732-18-5 70-90% Not classified CAS# 10035-04-8 10-30% Eye Irrit. 2A, H319; Acute Tox. 4, H302; Acute Tox. 5, H313 Calcium chloride

3.3 Chemicals where a trade secret is claimed: Any concentration shown as a range is to protect confidentiality, or is it due to batch variation.

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek immediately ate medical attention.

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if necessary.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Not flammable

Suitable extinguishing media: Use extinguishing methods for surrounding fires.

- 5.2 Special hazard arising from the substance or mixture: When heated to decomposition, emits toxic fumes of chlorine gases.
- 5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.
- 6.2 Emergency procedures: Restrict unprotected personnel from the area.
- 6.3 Methods and material used for containment and cleanup procedure: Mop up the spill. Ventilate and wash spill area with soap and water.

- 7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Avoid breathing vapor. Use hood or with adequate ventilation. Wash hands thoroughly after handling.
- 7.2 Storage: Keep container in cool, well-ventilated area. Keep It tightly closed.
- 7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: not available.

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airporne concentrations below exposure limits.

Respiratory protection: Non should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Appearance: Transparent, Colorless, Clear.

Odor: No odor pH: Not available

Vapor Pressure (mm Hg): Not available

Vapor Density: Not available Evaporation Rate: not available Viscosity: not available

Flash point: Not available Autoignition: Not available Boiling point: 1670°C/3038°F (Calcium chloride) Melting point: 772°C/1421.6 °F (Calcium chloride)

Freezing point: 0 °C/32 °F (water) Decomposition temp: Not available Solubility: Miscible.

Specific gravity (H₂O = 1): Not available

Percent volatile (%): 100 Wt% Molecular formula: Mixture Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Excessive temperatures, and incompatible materials.

Incompatibilities: Acids, Metals will slowly corrode in aqueous solution. Hazardous decomposition: When heated to decomposition, emits toxic fumes of chlorine gases.

Hazardous polymerization: Not available.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: Causes serious eye irritations. Skin: May cause mild skin irritation. Inhalation: Not expected to cause adverse effects. Ingestion: Ingestion: Harmful if swallowed. May cause irritation of the digestive tract.

Acute oral toxicity ORAL LDso: 1000mg/kg [Rat] Acute vapor toxicity IHL-LC50: Not available Acute dermal toxicity LD₅₀: 2630mg/kg [Rat]

Carcinogenicity:

California prop 65: Not classified

12. ECOLOGICAL INFORMATION

LC_{so} [Fathead minnow (Pimephales romelas)]3930-5360mg/L 96h. [Water flea (Daphnia magna)] 759mg/L 72h. Calcium chloride does not bioaccumulate.

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

14. TRANSPORT INFORMATION

UN number: Not available Shipping name: Not controlled.

Hazard Class: N/A Packing group: N/A Exceptions: N/A

15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (233-140-8), WHMIS (Canada): CLASS D-2B: Material causing other toxic effects (TOXIC). EU classification: It is classified as irritant. R36-Irritating to

16. OTHER INFORMATION

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Version: SDS 136.01.00 Revision Date: November 3, 2015



Version: SDS 137.01.00 Revision Date: November 3, 2015

1. IDENTIFICATION

1.1 Product Identifiers

Product Name: KCI Solution

Alternative names: Potassium chloride water solution.

Product Number: 36-5EA.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For laboratory and educational use only

1.3 Details of the supplier of the safety data sheet

Company: LAB-AIDS®, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA

Telephone: +1 800 381 8003. Fax: +1 631 820 8268

1.4 Emergency telephone number: Emergency number: CHEMTREC 1 800 424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture GHS classification

Not classified

2.2 Label elements, including precautionary statements

Signal word: Not classified Hazards statements: Not classified Precautionary statements: Not classified Pictogram: Not classified

2.3 Hazards not otherwise classified: none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Not applicable

2 2 Misture

Chemical Name	Product identifier	%	GHS-US classification	
Water Potassium chloride	CAS#7732-18-5 CAS#7447-40-7		Not classified Not classified	

3.3 Chemicals where a trade secret is claimed: Any concentration shown as a range is to protect confidentiality, or is it due to batch variation

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek medical attention if necessary

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation develop.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Nonflammable liquid

Suitable extinguishing media: Use TriClass, dry chemical extinguisher for surrounding fires.

5.2 Special hazard arising from the substance or mixture: Not available.

5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.
- 6.2 Emergency procedures: Restrict unprotected personnel from the area.
- 6.3 Methods and material used for containment and cleanup procedure: Mop up the area.

- 7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Wash hands thoroughly after handling.
- 7.2 Storage: Keep container in cool, well-ventilated area.
- 7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: Not classified

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits.

Respiratory protection: Non should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid. Appearance: Clear. Odor: Not available pH: Not available

Vapor Pressure (mm Hg): Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: N/A Flash point: N/A Autoignition: N/A

Boiling point: 212°F/100°C Melting point: ~0 °C/32 °F Freezing point: 0 °C/32 °F

Decomposition temp: not available

Solubility: Miscible.

Specific gravity (H2O = 1): 1.00 at 20°C

Percent volatile (%): >99 Wt% Molecular formula: Mixture Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable Conditions to Avoid: Not available. Incompatibilities: Not available Hazardous decomposition: Not available. Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eyes: No information available. Skin: No information available. Inhalation: No information available. Ingestion: No information available.

Toxicological data

Acute oral toxicity ORAL LD50: 2600mg/kg [Rat] as potassium chloride Acute vapor toxicity IHL-LC50: Not available

DERMAL LDso: Not available

Carcinogenicity:

California prop 65: Not classified

12. ECOLOGICAL INFORMATION

LC50 Lepomis microchirus 96 hours: 1060 mg/l. LC50 Pimephales promelas 96 hours: 750-1020 mg/l. EC50 Daphnia magna (Water flea) 48 hours: 825mg/l.

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

14. TRANSPORT INFORMATION

UN number: N/A Shipping name: N/A Hazard Class: N/A Packing group: N/A Exceptions: Ltd Qty. N/A

15. REGULATORY INFORMATION

TSCA-listed.

16. OTHER INFORMATION

Disclaimer:

The Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. LAB-AIDS® makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation and verification. The data should not be confused with local, state, federal regulations, or insurance mandates, and CONSTITUTE NO WARRANTY. Any use of these data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond LAB-AIDS, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

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Version: SDS 137.01.00 Revision Date: November 3, 2015



Pictogram: Not classified

Version: SDS_138.01.00 Revision Date: November 3, 2015

1. IDENTIFICATION

1.1 Product Identifiers

Product Name: Trace Elements

Alternative names: Trace elements water solution.

Product Number: 36-6EA.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For laboratory and educational use only

1.3 Details of the supplier of the safety data sheet
Company: LAB-AIDS®, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA

Telephone: +1 800 381 8003. Fax: +1 631 820 8268

1.4 Emergency telephone number: Emergency number: CHEMTREC 1 800 424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture GHS classification

Not classified

2.2 Label elements, including precautionary statements

Signal word: Not classified Hazards statements: Not classified Precautionary statements: Not classified

2.3 Hazards not otherwise classified: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Not applicable

Product identifier	%	GHS-US classification
CAS# 7732-18-5 Trade Secret		Not classified Not classified
	CAS# 7732-18-5	CAS# 7732-18-5 99.1-99.9%

3.3 Chemicals where a trade secret is claimed: Any concentration shown as a range is to protect confidentiality, or is it due to batch variation

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. See k medical attention if necessary

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation develop.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Nonflammable liquid

Suitable extinguishing media: Use TriClass, dry chemical extinguisher for surrounding fires.

5.2 Special hazard arising from the substance or mixture: Not available.

5.3.Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.
- 6.2 Emergency procedures: Restrict unprotected personnel from the area.
- 6.3 Methods and material used for containment and cleanup procedure: Mop up the area.

- 7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Wash hands thoroughly after handling.
- 7.2 Storage: Keep container in cool, well-ventilated area.
- 7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: Not classified

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits.

Respiratory protection: Non should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid. Appearance: Clear to milky. Odor: Not available pH: Not available

Vapor Pressure (mm Hg): Not available

Vapor Density: Not available Evaporation Rate: Not available

Viscosity: N/A Flash point: N/A Autoignition: N/A Boiling point: 212°F/100°C Melting point: ~0 °C/32 °F Freezing point: 0 °C/32 °F

Decomposition temp: not available

Solubility: Miscible.

Specific gravity (H₂O = 1): 1.00 at 20°C Percent volatile (%): >99 Wt% Molecular formula: Mixture Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable Conditions to Avoid: Not available. Incompatibilities: Not available Hazardous decomposition: Not available. Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: Not expected to cause any acute reaction Skin: Not expected to cause any acute reaction. Inhalation: Not expected to cause any acute reaction. Ingestion: Not expected to cause any acute reaction. This solution contains traces of elemental copper. Individuals with Wilson's disease may be affected by ingestion of elemental copper, Hereditary metabolic disorder involving deficiency in the copper binding and transport ceruloplasmin.

Toxicological data

Acute oral toxicity ORAL LDso: Not available Acute vapor toxicity IHL-LC50: Not available DERMAL LDso: Not available

Carcinogenicity:

California prop 65: Not classified

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

14. TRANSPORT INFORMATION

UN number: N/A Shipping name: N/A Hazard Class: N/A Packing group: N/A Exceptions: Ltd Qty. N/A

15. REGULATORY INFORMATION

TSCA-listed.

16. OTHER INFORMATION

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Version: SDS_138.01.00 Revision Date: November 3, 2015



Version: SDS 139.01.00 Revision Date: November 3, 2015

1. IDENTIFICATION

1.1 Product Identifiers

Product Name: Iron Chelate

Alternative names: EDTA sequestrene water solution.

Product Number: 36-7FA

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For laboratory and educational use only

1.3 Details of the supplier of the safety data sheet
Company: LAB-AIDS®, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA
Telephone: +1 800 381 8003.

Fax: +1 631 820 8268

1.4 Emergency telephone number: Emergency number: CHEMTREC 1 800 424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture GHS classification

Not classified

2.2 Label elements, including precautionary statements

Pictogram: Not classified Signal word: Not classified

Hazards statements: Not classified Precautionary statements: P264 - Wash exposed skin thoroughly after handling, P280 - Wear protective gloves, eye protection.

2.3 Hazards not otherwise classified: May cause eye irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Not applicable

2.7 Mivturo

Chemical Name	Product identifier	%	GHS-US classification	
Water Ethylenediametetraacetic acid	CAS# 7732-18-5 CAS#60-00-4	99.1-99.9% 0.1-0.9%	Not classified Eye Irrit. 2A, H319; Acute Tox. 4, H302.	

3.3 Chemicals where a trade secret is claimed: Any concentration shown as a range is to protect confidentiality, or is it due to batch variation

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek medical attention if necessary.

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation develop.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Nonflammable liquid

Suitable extinguishing media: Use TriClass, dry chemical extinguisher for surrounding fires.

5.2 Special hazard arising from the substance or mixture: Not available.

5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.
- 6.2 Emergency procedures: Restrict unprotected personnel from the area.
- 6.3 Methods and material used for containment and cleanup procedure: Mop up the area.

- 7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Wash hands thoroughly after handling.
- 7.2 Storage: Keep container in cool, well-ventilated area.
- 7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: Not classified

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits.

Respiratory protection: Non should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid. Appearance: Clear to milky. Odor: Not available pH: Not available

Vapor Pressure (mm Hg): Not available

Vapor Density: Not available Evaporation Rate: Not available

Viscosity: N/A Flash point: N/A Autoignition: N/A Boiling point: 212°F/100°C Melting point: ~0 °C/32 °F Freezing point: 0 °C/32 °F

Decomposition temp: not available

Solubility: Miscible.

Specific gravity (H₂O = 1): 1.00 at 20°C Percent volatile (%): >99 Wt% Molecular formula: Mixture Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable Conditions to Avoid: Not available. Incompatibilities: Not available Hazardous decomposition: Not available. Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: May cause mild eye irritation Skin: No data available. Inhalation: Not expected to cause any acute reaction. Ingestion: Ingestion of large amounts may cause systemic toxicity involving blood chemistry due to chelation properties.

Toxicological data

Acute oral toxicity ORAL LDso: 1700mg/kg [Rat], as EDTA Acute vapor toxicity IHL-LC₅₀: Not available

DERMAL LD₅₀: Not available

Carcinogenicity: California prop 65: Not classified

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

14. TRANSPORT INFORMATION

UN number: N/A Shipping name: N/A Hazard Class: N/A Packing group: N/A Exceptions: Ltd Qty. N/A

15. REGULATORY INFORMATION

TSCA-listed.

16. OTHER INFORMATION

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