SA08231
SA08525

4388

Kit #84 Identification of Chemical Reactions

1. IDENTIFICATION

1.1 Product Identifiers
Product Name: Solution 1, Hydrochloric Acid, 6M
Alternative names: Hydrochloric Acid, 6M, Hydrochloric acid water solution.
Product Number: 84-1EA, A84-1, C84-1.

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
Acute Tox. Oral (Category 4), H302
Skin Corr. (Category 1A) H314
Eye Dam. (Category 1) H318
Specific target organ toxicity –single exposure (Category 3) H335

2.2 Label elements, including precautionary statements
Pictogram:

Signal word: Danger
Hazards statements: H302 - Harmful if swallowed, H314– Causes severe skin burns and eye damage. H335– May cause respiratory irritation.
Precautionary statements: P280 - Wear protective gloves, eye protection, P264 - Wash exposed skin thoroughly after handling.

2.3 Hazards not otherwise classified: none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Not applicable
3.2 Mixture:

Chemical Name	Product identifier	%	GHS-US classification
Water	CAS# 7732-18-5	79.2%	Not classified
Hydrochloric acid	CAS# 7647-01-0	20.8%	Acute Tox. 4, H302; Skin Corr. 1A H314; Eye Dam. 1, H318; STOT SE 3, H335

3.3 Chemicals where a trade secret is claimed: none

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 immediate medical attention.
SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation or burns 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: Not flammable
Suitable extinguishing media: Use water spray, alcohol-resistant foam, or TriClass, dry chemical extinguisher.
5.2 Special hazard arising from the substance or mixture: Thermal decompositions generates corrosive vapors.
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 container. Dispose of in accordance with you local regulations. Small spills neutralize with acid neutralizer, or sodium hydroxide solution and mop up the area. 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 hood or with adequate ventilation. Wash hands thoroughly after handling.

7.2 Storage: Acid cabinet. Keep container tightly closed in cool, well-ventilated area.

7.3 incompatibility: Refer to section 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: ACGIH: TWA: 2 ppm (hydrochloric acid)

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: Colorless to slightly yellow.
Odor: Pungent
pH: <2
Vapor Pressure (mm Hg): Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Flash point: 537.2 °C (hydrochloric acid)
Autoignition: Not available

Flammability: Not available
Boiling point: 37.08°C estimated (hydrochloric acid)
Melting point: -114.22°C (-173.6° F)
Freezing point: 3.33°C (38° F)
Decomposition temp: Not available
Solubility: Miscible in water
Specific gravity (H_2O = 1): 1.18 g/cm³ @ 25°C (hydrochloric acid)
Percent volatile (%): 66% estimated (hydrochloric acid)
Molecular formula: Mixture
Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions to Avoid: Incompatible materials.
Incompatibilities: Alkali metals, metals, organic materials, strong oxidizing agents, amines.
Hazardous decomposition: Not available.
Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: Causes severe eye burns and eye damage. Skin: Causes severe skin burns. Inhalation: May cause respiratory track irritation. Ingestion: Swallowing hydrochloric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract.

Acute oral toxicity ORAL LD_{50}: 900mg/kg [Rabbit], as hydrochloric acid
Acute vapor toxicity IHL-LC_{50}: 3124ppm [Rat]/1h, as hydrochloric acid
DERMAL LD_{50}: 1449mg/kg [Mouse], as hydrochloric acid

Carcinogenicity:
California prop 65: None

12. ECOLOGICAL INFORMATION

LC50 (Gambusia affinis) 96 hours: 282 mg/l (hydrochloric acid)

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: 1789
Shipping name: Hydrochloric acid
Hazard Class: 8
Packing group: PG II
Exceptions: Ltd Qty. ≤1L

15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (231-595-7). WHMIS (Canada): CLASS E: Corrosive liquid. DSCL (EEC) R34-Causes burns.

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).

1. IDENTIFICATION

1.1 Product Identifiers
Product Name: Solution 2, Sodium Carbonate, 1M
Alternative names: Disodium Carbonate water solution
Product Number: 84-2EA, A84-2, C84-2,

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
Eye Irrit. (Category 2A), H319

2.2 Label elements, including precautionary statements
Signal word: Warning
Hazards statements: H319– Causes serious eye irritation.
Precautionary statements: P264 - Wash skin thoroughly after handling, P280 - Wear protective gloves, eye protection
Pictogram: 
2.3 Hazards not otherwise classified: none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: N/A
3.2 Mixture: Yes

Chemical Name	Product identifier	%	GHS-US classification
Water	CAS# 7732-18-5	90%	Not classified
Sodium Carbonate	CAS# 497-19-8	10%	Eye Irrit. 2A, H319

3.3 Chemicals where a trade secret is claimed: none

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 immediate 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: Sodium oxides.
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 suitable container. For small spill use paper towel. Place the wet medium in trash. 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. 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. EXPOSURE CONTROLS/PERSONAL PROTECTION

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 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: Transparent, Colorless, Clear.
Odor: No odor
pH: 10.5
Vapor Pressure (mm Hg): 2.3kPa at 20 °C
Vapor Density: 0.63 (Air=1)
Evaporation Rate: not available
Viscosity: not available
Flash point: Not available
Autoignition: Not available

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 (H_2O = 1): 1.01 at 20°C
Percent volatile (%): 100 Wt%
Molecular formula: Mixture
Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions to Avoid: High temperatures, and incompatible materials.
Incompatibilities: acids, ammonia and silver nitrate, hydrogen peroxide, sodium sulfide.
Hazardous decomposition: Sodium Carbonate is decomposed by acids with effervescence. Sodium Carbonate begins to decompose at 400°C to evolve Carbon dioxide.
Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: Causes serious eye irritations. Skin: May cause mild skin irritation. Inhalation: Dust may cause respiratory tract and mucous membrane irritation with coughing and shortness of breath. Ingestion: Ingestion: Sodium carbonate ingestion may cause irritation of the digestive tract resulting in nausea, vomiting, diarrhea, thirst and abdominal pain.

ORAL LD_{50}: 4090mg/kg [Rat]. 6600mg/kg [Mouse]
DUST LC_{50}: 2300mg/m³ 2h [Rat]. 1200mg/m³ 2h [Mouse]

Carcinogenicity:
California prop 65: Not classified

12. ECOLOGICAL INFORMATION

LC50 Bluegill (Lepomis macrochirus) 300mg/l, 96h, EC50 Water flea (Ceriodaphnia dubia) 156-298.9 mg/l, 48h

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 (231-791-2) water, (207-838-8) sodium carbonate. EC class: Xi; R36– irritant.

16. OTHER INFORMATION

Disclaimer:

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1. IDENTIFICATION

1.1 Product Identifiers
Product Name: Solution 3, Sodium Hydroxide, 3M
Alternative names: 3M Sodium hydroxide water solution.
Product Number: 84-3EA, A84-3, C84-3, 87-4EA, A87-4, C87-4

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

Skin Corr. (Category 1C), H314
Eye dam. (Category 1), H318
Corrosive to metals (Category 1) H290

Pictogram:

2.2 Label elements, including precautionary statements
Signal word: Danger
Hazards statements: H314– Corrosive to skin, H318– Causes serious eye damage.
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	%	GHS-US classification
Water	CAS# 7732-18-5	88%	Not classified
Sodium hydroxide	CAS# 1310-73-2	12%	Acute Tox. 4, H312; Met. Corr. 1, H290; Eye Dam. 1, H318; Skin Corr. 1A H314.

3.3 Chemicals where a trade secret is claimed: none

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 immediate medical attention.
SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation, or burns 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: Not flammable
Suitable extinguishing media: Use extinguishing methods for surrounding fires.
5.2 Special hazard arising from the substance or mixture: Thermal decomposition releases sodium oxides.
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: Neutralize with 0.5M Hydrochloric acid. Mop up the area. Ventilate and wash the 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. 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. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: ACGIH: TWA: 2mg/m³

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: Transparent, Colorless, 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: ≈100°C
Melting point: Not available
Freezing point: Not available
Decomposition temp: Not available
Solubility: Not available
Specific gravity (H_2O = 1): ≈1 at 20°C
Percent volatile (%): 100%
Molecular formula: Mixture
Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions to Avoid: High temperatures and Incompatible materials.
Incompatibilities: Metals, organic materials.
Hazardous decomposition: Sodium hydroxide reacts with metals to form flammable and explosive hydrogen gas.
Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: Causes severe eye irritations and burns. Skin: Causes severe skin irritations and burns. Inhalation: Data not available. Ingestion: Causes burns of the mouth, throat and stomach. May cause severe and permanent damage to the digestive tract.

Acute oral toxicity ORAL LD_{50}: not available
Acute vapor toxicity IHL-LC_{50}: not available
DERMAL LD_{50}: 1350mg/kg [Rabbit]

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: 1824
Shipping name: Sodium hydroxide solution
Hazard Class: 8
Packing group: PG III
Exceptions: Ltd Qty. ≤4L

15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (215-185-5). WHMIS (Canada): CLASS E: Corrosive material. DSCL (EEC): R35-Causes severe burns.

16. OTHER INFORMATION

Disclaimer:

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1. IDENTIFICATION

1.1 Product Identifiers
Product Name: Solution 4, Potassium Chromate, 0.1M
Alternative names: Potassium chromate water solution.
Product Number: 84-4EA, A84-4, C84-4, 87-1EA, A87-1, C87-1.

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
Skin Sen. (Category 1) H317
Germ cell mutagenicity (Category 1B), H340
Carcinogenicity (Category 1A) H350

2.2 Label elements, including precautionary statements
Pictogram:

Signal word: Danger
Hazards statements: H317–May cause an allergic skin reaction. H340–May cause genetic defects. H350-May cause cancer. H410-Very toxic to aquatic life with long lasting effects.
Precautionary statements: P264 - Wash skin thoroughly after handling, P280 - Wear protective gloves, eye protection

2.3 Hazards not otherwise classified: May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: N/A
3.2 Mixture: Yes

Chemical Name	Product identifier	%	GHS-US classification
Water	CAS# 7732-18-5	98%	Not classified
Potassium chromate	CAS# 7631-90-5	2%	Acute Tox. 3, H301; Skin Sen. 1, H317; Eye Irrit. 2A, H319; STOT 3, H335; Muta 1B, H340; Carc. 1B, H350; Aquatic Acute 1, H400, Aquatic Chronic 1, H410

3.3 Chemicals where a trade secret is claimed: none.

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 immediate 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: No data 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: Contain the spill with an inert absorbent material and deposit in a suitable 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. 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. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: ACGIH: TWA: 0.05mg/m³ as potassium chromate

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, yellow.
Odor: Not available
pH: Not available
Vapor Pressure (mm Hg): Not available
Vapor Density: The highest known is 0.62
Evaporation Rate: Not available
Viscosity: N/A
Flash point: Not available
Autoignition: Not available

Boiling point: The lowest know is 100°C
Melting point: Not available
Freezing point: Not available
Decomposition temp: Not available
Solubility: Miscible in water and alcohol
Specific gravity (H_2O = 1): 1.011 at 20°C
Percent volatile (%): Not available
Molecular formula: Mixture
Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions to Avoid: Incompatible materials.
Incompatibilities: Slightly reactive with 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, blurred vision, redness, pain. May cause conjunctivitis. Skin: May cause skin irritation. Inhalation: May cause respiratory tract irritation. Symptoms my include sore throat, coughing. Ingestion: May be harmful if swallowed. It may cause irritation of the mouth, throat and stomach. Symptoms may include sore throat, thirst, nausea, vomiting diarrhea. Prolonged or repeated ingestion of potassium chromate may affect kidneys and cause damage. May cause adverse reproductive effects. May affect genetic material. Solid potassium chromate is a known human carcinogen.

ORAL LD_{50}: 180mg/kg [Mouse] as potassium chromate
DUST LC_{50}: No information available

Carcinogenicity:
California prop 65: Potassium chromate.

12. ECOLOGICAL INFORMATION

LC50 Pimephales promelas (fathead minnow) 40mg/l, 96h, as potassium chromate. EC50 Daphnia magna (Water flea) 15 mg/l, 48h as potassium chromate.

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 (232-140-5). WHMIS (Canada): CLASS D-2B: Material causing other toxic effects. DSCL (EEC) R36-Irritating to eyes. R22-Harmful if swallowed. S46-If swallowed, seek medical advice immediately and show this container or label.

16. OTHER INFORMATION

Disclaimer:

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1. IDENTIFICATION

1.1 Product Identifiers
Product Name: Solution S, Calcium chloride, 0.1M
Alternative names: Calcium chloride water solution
Product Number: 84-SEA, A84-5, C84-5,

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
Pictogram: Not classified
Hazards statements: Not classified
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: Yes

Chemical Name	Product identifier	%	GHS-US classification
Water	CAS# 7732-18-5	99%	Not classified
Calcium chloride	CAS# 10035-04-8	1%	Eye Irrit. 2A, H319; Acute Tox. 4, H302

3.3 Chemicals where a trade secret is claimed: none

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 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 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: Data 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 spill. 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. 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. EXPOSURE CONTROLS/PERSONAL PROTECTION

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 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: Transparent, Colorless, Clear.
Odor: No odor
pH: Not available
Vapor Pressure (mm Hg): 2.3kPa at 20 °C
Vapor Density: 0.63 (Air=1)
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 (H_2O = 1): 1.01 at 20°C
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: Not available
Hazardous polymerization: Not available.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: Data not available. Skin: Data not available. Inhalation: Data not available. Ingestion: Ingestion: Data not available

ORAL LD_{50}: 1000mg/kg [Rat]. (calcium chloride) 1940mg/kg [Mouse]. (calcium chloride)
DERMAL LD_{50}: 2630mg/kg [Rat]. (calcium chloride)

Carcinogenicity:
California prop 65: Not classified

12. ECOLOGICAL INFORMATION

LC_{50} [Fathead minnow (Pimephales romelas)]3930-5360mg/L 96h. (calcium chloride) [Water flea (Daphnia magna)] 759mg/L 72h. (calcium chloride)
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) as calcium chloride.

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, Inc. 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).

1. IDENTIFICATION

1.1 Product Identifiers
Product Name: Solution 6, Sodium Bisulfite, 1M
Alternative names: Sodium Bisulfite water solution.
Product Number: 84-6EA, A84-6, C84-6.

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
Eye Irrit. (Category 2A), H319
Resp. Sen. (Category 1) H334
Skin Sen. (Category 1) H317

2.2 Label elements, including precautionary statements
Pictogram: 
Signal word: Danger
Hazards statements: H319– Causes serious eye irritation. H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317– May cause an allergic skin reaction.
Precautionary statements: P264 - Wash skin thoroughly after handling, P280 - Wear protective gloves, eye protection

2.3 Hazards not otherwise classified: May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: N/A
3.2 Mixture: Yes

Chemical Name	Product identifier	%	GHS-US classification
Water	CAS# 7732-18-5	90%	Not classified
Sodium Bisulfite	CAS# 7631-90-5	10%	Eye Irrit. 2A, H319; Resp. Sen. 1, H334; Skin Sen. 1, H317

3.3 Chemicals where a trade secret is claimed: none.

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 immediate 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 it emits toxic fumes.
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 suitable 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. 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. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: ACGIH: TWA: 5mg/m³ as sodium bisulfite

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: Transparent liquid.
Odor: Not available
pH: Not available
Vapor Pressure (mm Hg): 2.3kPa at 20 °C (water)
Vapor Density: 0.63 (Air=1) (water)
Evaporation Rate: Not available
Viscosity: Not available
Viscosity: not available
Flash point: Not available

Boiling point: Not available
Melting point: Not available
Freezing point: Not available
Decomposition temp: Not available
Solubility: Miscible.
Specific gravity (H_2O = 1): Not avaialble
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: Reactive with oxidizing agents, acids.
Hazardous decomposition: Sodium oxides, Sulfur oxides.
Hazardous polymerization: Not available.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: Causes serious eye irritations. Skin: Causes skin irritation. May cause sensitization. Inhalation: It can cause respiratory tract and irritation with coughing and shortness of breath. It can produce anaphylaxis or other hypersensitivity reactions in some sensitized individuals. Ingestion: May be harmful if swallowed . It may cause nausea, vomiting, diarrhea, thirst and abdominal pain. Extremely large amounts may affect central nervous system. It may cause asthmatic reactions in sensitized individuals.

ORAL LD_{50}: 1340mg/kg [Rat] as sodium bisulfite
DUST LC_{50}: No information available

Carcinogenicity:
California prop 65: Not listed.

12. ECOLOGICAL INFORMATION

LC50 Mosquitofish (Gambusia affinis) 240mg/l, 96h, static 1, as sodium bisulfite. EC50 Water flea (Daphnia magna) 119 mg/l, 48h as sodium bisulfite

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. WHMIS (Canada): CLASS D-2B: Material causing other toxic effects (TOXIC) as Sodium bisulfite. DSCL (EEC) R22– Harmful if swallowed. S46-If swallowed, seek medical advice immediately and show this container or label.525– Avoid contact with eyes.

16. OTHER INFORMATION

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LAB-AIDS
Experiencing Science

SAFETY DATA SHEET
Version: SDS_127.01.00
Revision Date: July 21, 2015

1. IDENTIFICATION

1.1 Product Identifiers
Product Name: Solution 7, Copper Sulfate
Alternative names: Acidified copper sulfate solution.
Product Number: 84-7EA, A84-7, C84-7
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
Skin Corr. (Category 1B), H314
Eye Dam. (Category 1), H318
Acute Tox. (Category 3), H301
2.2 Label elements, including precautionary statements
Signal word: Danger
Pictogram: 
Hazards statements: H314 - Causes severe skin burns and eye damage, H301– Toxic if swallowed. H410-Very toxic to aquatic life with long lasting effects.
Precautionary statements: P264 - Wash exposed 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: Not applicable
3.2 Mixture:

Chemical Name	Product identifier	%	GHS-US classification
Water	CAS# 7732-18-5	91.5%	Not classified
Copper II Sulfate, Pentahydrate	CAS#7758-99-8	4.5%	Acute Tox. 3 (Oral), H301; Aquatic Acute 1, H400, Aquatic Chronic 1, H410
Sulfuric acid	CAS# 7664-93-9	4.0%	Skin Corr. 1B H314 ; Eye Dam. 1, H318; STOT SE 3

3.3 Chemicals where a trade secret is claimed: None

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 immediate medical attention.
SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation or burns 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: When heated to decomposition emits toxic fumes.
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 hazardous waste container. For small spill use paper towel. Dry material place in trash. 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: Store in a dedicated acid cabinet. Keep container in cool, well-ventilated area.

7.3 incompatibility: Refer to section 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: OSHA: TWA: 1mg/m³ for sulfuric acid. ACGIH: TWA: 1 mg/m3 TWA (dust and mist, as Cu)
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: Blue.
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: ≈100°C
Melting point: Not available
Freezing point: Not available
Decomposition temp: Not available
Solubility: Not available
Specific gravity (H_2O = 1): ≈1 at 20°C
Percent volatile (%): 100%
Molecular formula: Mixture
Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions to Avoid: Incompatibles.
Incompatibilities: Slightly reactive with oxidizing agents, reducing agents. Nitromethanes, phosphates, organic materials, acids, alkalis. Corrosive to metals.
Hazardous decomposition: When heated to decomposition, emits toxic fumes.
Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eyes: Causes severe eye irritation or burns. May cause irreversible eye injury. Skin: Causes severe skin irritation or burns. Inhalation: Not expected due to low acid concentration and vapor pressure. Ingestion: Toxic if swallowed. Causes gastrointestinal tract burns. May cause permanent damage to the digestive tract as sulfuric acid. 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:
Oral LD_{50}: 300mg/kg [Rat]. Copper II sulfate
Dermal LD_{50}: >2000mg/kg [Rat]. Copper II sulfate
Lowest Published Lethal Dose
Oral-LDL [Human] 1088mg/kg

Oral LD_{50}: 2140mg/kg [Rat]. Sulfuric acid
Vapor LC_{50}: 510mg/kg 2h [Rat]. Sulfuric acid

Carcinogenicity:

12. ECOLOGICAL INFORMATION

LC_{50} [Fathead minnow (Pimephales romelas)] 0.6752mg/L 96h as Copper sulfate. [Water flea (Daphnia magna)] 0.147-0.227mg/L 72h as copper sulfate.
LC_{50} Brachydanio rerio 500mg/L 96h as sulfuric acid.

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: UN1760
Shipping name: Corrosive liquids, n.o.s.
Hazard Class: 8
Packing group: II
Exceptions: Lt. Qty. 1L

15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (231-847-6) copper sulfate (231-639-5) sulfuric acid. WHMIS (Canada): CLASS D-1B: Material causing immediate and seri ous toxic effects (TOXIC). CLASS E: Corrosive liquid. DSCL (EEC) R34-Causes burns. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effe cts in the aquatic environment.

16. OTHER INFORMATION

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1. IDENTIFICATION

1.1 Product Identifiers
Product Name: Unknown
Alternative names: Calcium chloride water solution
Product Number: 84-8EA, A84-8, C84-8.

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
Pictogram: Not classified
Hazards statements: Not classified
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: Yes

Chemical Name	Product identifier	%	GHS-US classification
Water	CAS# 7732-18-5	99%	Not classified
Calcium chloride	CAS# 10035-04-8	1%	Eye Irrit. 2A, H319; Acute Tox. 4, H302

3.3 Chemicals where a trade secret is claimed: none

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 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 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: Data 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 spill. 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. 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. EXPOSURE CONTROLS/PERSONAL PROTECTION

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 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: Transparent, Colorless, Clear.
Odor: No odor
pH: Not available
Vapor Pressure (mm Hg): 2.3kPa at 20 °C
Vapor Density: 0.63 (Air=1)
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 (H_2O = 1): 1.01 at 20°C
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: Not available
Hazardous polymerization: Not available.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: Data not available. Skin: Data not available. Inhalation: Data not available. Ingestion: Ingestion: Data not available

ORAL LD_{50}: 1000mg/kg [Rat]. (calcium chloride) 1940mg/kg [Mouse]. (calcium chloride)
DERMAL LD_{50}: 2630mg/kg [Rat]. (calcium chloride)

Carcinogenicity:
California prop 65: Not classified

12. ECOLOGICAL INFORMATION

LC_{50} [Fathead minnow (Pimephales romelas)]3930-5360mg/L 96h. (calcium chloride) [Water flea (Daphnia magna)] 759mg/L 72h. (calcium chloride)
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) as calcium chloride.

16. OTHER INFORMATION

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