

Kit #9 Normal Mitosis

1. IDENTIFICATION

1.1 Product Identifiers

Product Name: Solution A
Alternative names: Denatured alcohol and hydrochloric acid solution.
Product Number: 9-1EA

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.
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

Flam. Liq. (Category 2), H225
Skin Corr. (Category 1B), H314
Eye Corr. (Category 1), H318



2.2 Label elements, including precautionary statements

Signal word: Danger
Hazards statements: H225 - Highly flammable liquid and vapor, H314– Causes severe skin burns and eye damage. Pictogram:

Precautionary statements: P210 - Keep away from heat, hot surfaces, open flames, sparks, 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
Ethyl alcohol, denatured	CAS# 64-17-5	N/A	Flam. Liq. 2, H225; STOT SE 3; H336
Hydrochloric acid	CAS# 7647-01-0	N/A	Acute Tox. 4 (Oral), H302; Skin Corr. 1B H314 ; Eye Dam. 1, H318; STOT SE 3

3.3 Chemicals where a trade secret is claimed: Concentration of the components.

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 an immediate medical attention.

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if burns or 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: Flammable liquid.

Suitable extinguishing media: Use TriClass, dry chemical extinguisher.

5.2 Special hazard arising from the substance or mixture: Flammable liquid. Vapor spreads at floor level and may travel to the ignition source.

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. 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. Keep away from heat, sparks and flame. Vapor forms from this product and may travel, or be moved by air currents and ignited by pilot lights, static discharges, flames, sparks, heaters or other ignition sources. 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: Flammable cabinet. Keep container in cool, well-ventilated area.

7.3 incompatibility: Refer to section 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: ACGIH: TWA: 2ppm (hydrochloric acid); ACGIH: TWA: 1000ppm (ethanol)

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.

Odor: Strong alcohol odor

pH: Acidic

Vapor Pressure (mm Hg): Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: N/A

Flash point: 16°C (61°F) ethanol

Autoignition: 365 °C (689°F)

Boiling point: 78.37 °C (173.07°F) ethanol

Melting point: -114 °C (-173 °F) ethanol

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: Open flames, sparks, high temperatures and incompatible materials.

Incompatibilities: Strong oxidizing agents, acid chlorides, metals, peroxides, ammonia, organic materials.

Hazardous decomposition: Not available

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects:

Eyes: Corrosive to eyes. Splashes may cause severe burns and permanent eye damage. Skin: Corrosive to skin. Can cause redness, pain and severe skin burns if not washed off immediately. Inhalation: Vapors are irritating to mucous membrane and eyes. Inhalation of vapors can cause coughing, choking. Inflammation of the nose, throat, and upper respiratory tract. Ingestion: Swallowing hydrochloric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract. Ingested doses of alcohol are toxic and harmful when swallowed. Alcohol will produce nausea, dizziness and headache.

Toxicological data:

ORAL LD₅₀Ethanol: 7060mg/kg [Rat]. 3450mg/kg [Mouse]

VAPOR LC₅₀Ethanol: 20000ppm 8h [Rat]. 39000 mg/m³ 4h [Mouse]

Acute oral toxicity ORAL LD₅₀: 900mg/kg [Rabbit], as hydrochloric acid

Acute vapor toxicity IHL-LC₅₀: 3124ppm [Rat]/1h, as hydrochloric acid

DERMAL LD₅₀: not available

Carcinogenicity:

California prop 65: Not classified

12. ECOLOGICAL INFORMATION

Not 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: 2924

Shipping name: Flammable liquid, corrosive, n.o.s.

Hazard Class: 3, 8

Packing group: PG II

Exceptions: Lty Qty ≤1L

15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (200-578-6) as alcohol. TSCA-listed, EINECS-listed (231-595-7)as hydrochloric acid. 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 B
Alternative names: Denatured alcohol and chloroform acidic solution.
Product Number: 9-2EA

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

Flam. Liq. (Category 2), H225
Skin Corr. (Category 1B), H314
Eye Corr. (Category 1), H318

2.2 Label elements, including precautionary statements

Signal word: Danger
Hazards statements: H225 - Highly flammable liquid and vapor, H314– Causes severe skin burns and eye damage. Pictogram:



Precautionary statements: P210 - Keep away from heat, hot surfaces, open flames, sparks, 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
Ethyl alcohol, denatured	CAS# 64-17-5	N/A	Flam. Liq. 2, H225; STOT SE 3; H336
Chloroform	CAS# 67-66-3	N/A	Acute Tox. 4 (Oral), H302; Skin Irrit. 2A H315 ; Carc. 2. H351; Repr. 2, H361;
Acetic acid	CAS# 64-19-7	N/A	Flam. Liq. 3, H226; Skin Corr. 1A, H314, Eye Dam. H318

3.3 Chemicals where a trade secret is claimed: Concentration of the components.

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 an immediate medical attention.

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if burns or 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: Flammable liquid.

Suitable extinguishing media: Use TriClass, dry chemical extinguisher.

5.2 Special hazard arising from the substance or mixture: Flammable liquid. Vapor spreads at floor level and may travel to the ignition source.

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. 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. Keep away from heat, sparks and flame. Vapor forms from this product and may travel, or be moved by air currents and ignited by pilot lights, static discharges, flames, sparks, heaters or other ignition sources. 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: Flammable cabinet. Keep container in cool, well-ventilated area.

7.3 incompatibility: Refer to section 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: **ACGIH:** TWA: 25g/m³ (acetic acid); **ACGIH:** TWA: 1000ppm (ethanol); **ACGIH:** TWA: 10ppm (chloroform).

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.

Odor: Strong alcohol odor

pH: Acidic

Vapor Pressure (mm Hg): Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: N/A

Flash point: 16°C (61°F) ethanol

Autoignition: 365 °C (689°F)

Boiling point: 78.37 °C (173.07°F) ethanol

Melting point: -114 °C (-173 °F) ethanol

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: Open flames, sparks, high temperatures and incompatible materials.

Incompatibilities: Strong oxidizing agents, acid chlorides, metals, peroxides, ammonia, organic materials.

Hazardous decomposition: Not available

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects:

Eyes: Corrosive to eyes. Splashes may cause severe burns and permanent eye damage. Skin: Corrosive to skin. Can cause redness, pain and severe skin burns if not washed off immediately. Inhalation: Vapors are irritating to mucous membrane and eyes. Inhalation of vapors can cause coughing, choking. Inflammation of the nose, throat, and upper respiratory tract. Ingestion: Toxic. Harmful if swallowed. Swallowing causes gastrointestinal track irritation with possible burns associated with pain of the mouth, throat. Ingested doses of alcohol will produce nausea, dizziness and headache. Ingestion of chloroform may affect liver, kidneys. Prolonged or repeated ingestion may damage these organs

Toxicological data:

ORAL LD₅₀Ethanol: 7060mg/kg [Rat]. 3450mg/kg [Mouse]

VAPOR LC₅₀Ethanol: 20000ppm 8h [Rat]. 39000 mg/m³ 4h [Mouse]

Acute oral toxicity ORAL LD₅₀: 695mg/kg [Rat], as chloroform

Acute vapor toxicity IHL-LC₅₀: 47700 mg/m³ [Rat]/4h, as chloroform

DERMAL LD₅₀: >20000mg/kg [Rabbit], as chloroform

Acute oral toxicity LD₅₀: 3310mg/kg [Rat], as acidic acid

Acute dermal toxicity LD₅₀ 1060mg/kg [Rabbit], as acidic acid

Acute vapor toxicity LC₅₀: 5620ppm 1h [Mouse], as acidic acid

Carcinogenicity:

California prop 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects, or other reproductive harm, which would require a warning under the statute: Chloroform.

12. ECOLOGICAL INFORMATION

Ecotoxicity in water (LC50): 43.8mg/l 96h [Trout].

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: 3286

Shipping name: Flammable liquid, toxic, corrosive, n.o.s.

Hazard Class: 3, 6.1, 8

Packing group: PG II

Exceptions: Lty Qty ≤1L

15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (200-578-6) as alcohol. D5CL (EEC) R22-Harmful if swallowed. R40 Limited evidence of carcinogenic effect as chloroform. R48/20/22– Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed as chloroform.

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: Aceto-Orcein Stain
Alternative names: Ethanoic acid mixture.
Product Number: 9-3EA

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

Flam. Liq. (Category 3), H226
Skin Corr. (Category 1B), H314
Eye Corr. (Category 1), H318

2.2 Label elements, including precautionary statements

Signal word: Danger
Hazards statements: H226 - Flammable liquid and vapor, H314– Causes severe skin burns and eye damage. Pictogram:



Precautionary statements: P210 - Keep away from heat, hot surfaces, open flames, sparks, 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	N/A	Not classified
Acetic acid	CAS# 64-19-7	N/A	Flam. Liq. 3, H226; Skin Corr. 1A, H314, Eye Dam. H318
Orcein	CAS# 1400-62-0	N/A	Acute Tox. 4, H302

3.3 Chemicals where a trade secret is claimed: Concentration of the components.

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 an immediate medical attention.

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if burns or 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: Flammable liquid.

Suitable extinguishing media: Use TriClass, dry chemical extinguisher.

5.2 Special hazard arising from the substance or mixture: Flammable liquid. Vapor spreads at floor level and may travel to the ignition source.

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. 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. Keep away from heat, sparks and flame. Vapor forms from this product and may travel, or be moved by air currents and ignited by pilot lights, static discharges, flames, sparks, heaters or other ignition sources. 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: Flammable cabinet. Keep container in cool, well-ventilated area.

7.3 incompatibility: Refer to section 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: ACGIH: TWA: 25g/m³ (acetic 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: Red.

Odor: Strong acetic odor

pH: Acidic

Vapor Pressure (mm Hg): Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: N/A

Flash point: 40.3°C (104°F) acetic acid

Autoignition: 485 °C (905°F) acetic acid

Boiling point: 117 °C (243°F) acetic acid

Melting point: 16.2 °C (61.2 °F) acetic acid

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: Open flames, sparks, high temperatures and incompatible materials.

Incompatibilities: Strong oxidizing agents, chromic and nitric acid, carbonates, metals, hydroxides, amines, organic materials.

Hazardous decomposition: Not available

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects:

Eye: Causes eye irritation, redness and pain, May cause burns, blurred vision, conjunctivitis, corneal destruction and permanent injury. Stains tissue. Skin: Causes skin irritation. May cause blistering, tissue burns and damage. Stains tissue. Inhalation: Causes respiratory track irritation. Affects the sense organs. Corrosive to mucous membrane. Severe exposure may result in lung tissue damage. Ingestion: Causes gastrointestinal track irritation with possible burns associated with burning and pain of the mouth, throat, nausea, diarrhea, abdominal pain. May also affect blood, metabolism, liver and the urinary system.

Toxicological data:

Acute oral toxicity LD₅₀: 3310mg/kg [Rat], as acidic acid

Acute dermal toxicity LD₅₀ 1060mg/kg [Rabbit], as acidic acid

Acute vapor toxicity LC₅₀: 5620ppm 1h [Mouse], as acidic acid

Carcinogenicity:

California prop 65: Not classified.

12. ECOLOGICAL INFORMATION

Not 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: 2790

Shipping name: Acetic acid solution

Hazard Class: 8

Packing group: III

Exceptions: Ltd Qty. 4L

15. REGULATORY INFORMATION

TSCA-listed. DSCL (EEC) R36/37/38– Irritating to eyes, respiratory system and skin. R35–Causes severe 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: Root Tips
Alternative names: 70% Isopropyl alcohol
Product Number: 9-4EA

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

Flam. Liq. (Category 2), H225
Eye irritant (Category 2A), H319

2.2 Label elements, including precautionary statements

Signal word: Danger
Hazards statements: H225 - Highly flammable liquid and vapor, H319 - Causes serious eye irritation.
Precautionary statements: P210 - Keep away from heat, hot surfaces, open flames, sparks, P280 - Wear protective gloves, eye protection

Pictogram:



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	30%	Not classified
Isopropanol	CAS# 67-63-0	70%	Flam. Liq. 2, H225; Eye Irrit. 2A ; STOT SE 3, H336

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 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: Exposure to high concentrations may cause coughing and central nervous system depression. Dizziness. Headache.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use TriClass, dry chemical extinguisher.

5.2 Special hazard arising from the substance or mixture: Vapor spreads at floor level.

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: For small spill use paper towel.

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. Avoid breathing vapor. Wash hands thoroughly after handling.

7.2 Storage: Keep container tightly closed in cool, well ventilated area. Keep away from open flames, sparks and heat.

7.3 incompatibility: Refer to section 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: ACGIH: STEL: 980g/m³; USA OSHA: TWA: 490g/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. Use self-contained breathing apparatus in high vapor concentrations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.

Appearance: Transparent.

Odor: Alcohol

pH: Not available

Vapor Pressure (mm Hg): 32.4 at 20 °C/68°F (Isopropyl alcohol)

Vapor Density: the Not available

Evaporation Rate: Not available

Viscosity: N/A

Flash point: 12°C/53.6°F (isopropyl alcohol)

Autoignition: 399 °C/750.2°F (Isopropyl alcohol)

Boiling point: 82°C/180°F (isopropyl alcohol)

Melting point: -89.5°C/-129.1°F (isopropyl alcohol)

Freezing point: Not available

Decomposition temp: Not available

Solubility: Miscible in water and alcohol

Specific gravity (H₂O = 1): 0.786 g/cm³

Percent volatile (%): Not available

Molecular formula: Mixture

Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: High temperatures, sparks open flames and 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: Eyes: Material is irritating to eyes. Skin: May cause mild skin irritation. Inhalation: Inhalation of large quantities might produce nausea, dizziness and headache. Ingestion: Ingestion may affect reversible liver effects and Central System Depression similar to inhalation.

Toxicological data:

ORAL LD₅₀Isopropyl alcohol: 5045mg/kg [Rat]. 3600mg/kg [Mouse]. 6410 mg/kg [Rabbit]

DERMAL LD₅₀Isopropyl alcohol: 12800 mg/kg 4h [Rabbit].

Carcinogenicity:

California prop 65: Not classified

12. ECOLOGICAL INFORMATION

Data not available.

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations.

14. TRANSPORT INFORMATION

UN number: 1219

Shipping name: Isopropanol solution

Hazard Class: 3

Packing group: PG II

Exceptions: Lty Qty ≤1L

15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (200-661-7) isopropyl alcohol. R11- Highly flammable, R36– Irritating to eyes, R67—Vapors may cause drowsiness and dizziness.

16. OTHER INFORMATION

Disclaimer:

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