

# **Kit #79 Strawberry DNA Extraction**



## 1. IDENTIFICATION

### 1.1 Product Identifiers

Product Name: Cell Lysis Solution  
Alternative names: SDS water solution.  
Product Number: 79-1EA, SGI-B025, SGI-B027xx.

### 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 Irrit. (Category 3), H316; Eye Irrit. (Category 2B), H320

Acute Aquatic Toxicity (Category 3) H402,

Chronic Aquatic Toxicity (Category 3) H412

### 2.2 Label elements, including precautionary statements

Signal word: Warning Pictogram: Not classified  
Hazards statements: H316 - Causes mild skin irritation, H320 - Causes eye irritation. H402-Harmful to aquatic life, H412-Harmful to aquatic life with long lasting effects.  
Precautionary statements: P264 - Wash exposed skin thoroughly after handling, P280 - Wear protective gloves, eye protection, P273-Avoid release to the environment, P301+P312+P330-IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

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	99.0%	Not classified
Sodium Dodecal Sulfate	CAS# 151-21-3	1-5%	Acute Tox. 4, H302; Acute Tox. 3, H311; Skin Irrit. 2 H315 ; Eye Irrit. 2A, H319; STOT SE 3, H335, Acute Aquatic 2, H401, Chronic Aquatic 2, H411
Proprietary Ingredient 1	Trade Secret	0.1-0.9%	Not classified
Proprietary Ingredient 1	Trade Secret	0.1-0.5%	Not classified
Proprietary Ingredient 1	Trade Secret	0.01-0.05%	Eye Irrit. 2B, H320

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: 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. 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: 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:** 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<sub>2</sub>O = 1):** ≈1 at 20°C

**Percent volatile (%):** 100%

**Molecular formula:** Mixture

**Molecular weight:** Mixture

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Conditions to Avoid:** Not available.

**Incompatibilities:** Incompatible materials

**Hazardous decomposition:** Strong oxidizing agents.

**Hazardous polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute effects:** Eyes: Causes serious eye irritation. Skin: May cause mild skin irritation. Inhalation: Not expected to cause irritation to the respiratory tract and mucous membrane. Ingestion: May be harmful if ingested. May cause gastrointestinal irritation and vomiting.

### Toxicological data

ORAL LD<sub>50</sub>: 1288mg/kg [Rat] as Sodium dodecal sulfate

IHL-LC<sub>50</sub>: >3900mg/kg 1h [Rat] as Sodium dodecal sulfate

DERMAL LD<sub>50</sub>: 580mg/kg [Rabbit] as Sodium dodecal sulfate

### Carcinogenicity:

California prop 65: Not classified

## 12. ECOLOGICAL INFORMATION

EC50 Daphnia magna 1.8mg/l, 120h, as Sodium dodecal sulfate.

## 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, DSCL (EEC) R36/38-irritating to eyes and skin.

## 16. OTHER INFORMATION

### Disclaimer:

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## 1. IDENTIFICATION

### 1.1 Product Identifiers

Product Name: Precipitation Solution  
Alternative names: Ethyl alcohol denatured with methanol, Ethyl acetate, Methyl Isobutyl Ketone.  
Product Number: 79-2EA, SGI-B026xx, SGI-B028xx.

### 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; Carcinogenicity (Category 2), H351  
Eye Irrit. (Category 2A) H319; Acute Tox., Oral, (Category 4), H302  
Acute Tox. Inhalation, (Category 4), H332; Acute Tox. Dermal (Category 4), 312  
Specific Target Organ Toxicity, Single Exposure, Oral (Category 3), H336

### 2.2 Label elements, including precautionary statements

Signal word: Danger

Pictogram:



Hazards statements: H225 - Highly flammable liquid and vapor, H336- May cause drowsiness or dizziness, H351-Suspected of causing cancer, H319- Causes serious eye irritation, H302-Harmful if swallowed, H312-Harmful in contact with skin, H332-Harful if inhaled.

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	CAS# 64-17-5	90%	Flam. Liq. 2, H225; STOT SE 3; H336; Eye Irrit. 2A, H319
Methanol	CAS# 67-56-1	5%	Flam. Liq. 2, H225; Acute Tox. 3, H301+H302+H303
Ethyl Acetate	CAS# 141-78-6	4%	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Eye Irrit. 2A, H319
Methyl isobutyl ketone	CAS# 108-10-1	1%	Flam. Liq. 2, H225; Eye Irrit. 2A, H319; Carc. 2, H351

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: 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 water spray, alcohol-resistant foam, or TriClass, dry chemical extinguisher.

5.2 Special hazard arising from the substance or mixture: Vapor spreads at floor level. Flash back possible over considerable distance.

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. 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. 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. Ensure all equipment is electrically grounded before beginning transfer operations.

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: 400ppm (Ethyl Acetate); USA OSHA: TWA: 200ppm (Methanol); 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:** Clear, colorless.

**Odor:** Strong alcohol odor

**pH:** Not available

**Vapor Pressure ( mm Hg):** 66.661hPa

**Vapor Density:** Not available

**Evaporation Rate:** Not available

**Viscosity:** Not available

**Flash point:** 13 °C (55 °F)

**Autoignition:** ca. 400 °C, 752 °F; ASTM D 2155

**Flammability:** Explosion limits: Lower: 3.3% Upper: 19.0%

**Boiling point:** 74-80 °C (165.2-176 ° F)

**Melting point:** -114°C (-173° F)

**Freezing point:** Not available

**Decomposition temp:** Not available

**Solubility:** Miscible in water and many organic solvents

**Specific gravity (H<sub>2</sub>O = 1):** 0.79 g/cm<sup>3</sup> @ 15.5 °C, 60 °F

**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:** Strong oxidizing agents, acids, peroxides, acid chlorides, acid anhydrides, alkali metals, ammonia.

**Hazardous decomposition:** N/A

**Hazardous polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute effects:** Eye: Causes eye irritation. Skin: May cause mild skin irritation. May be absorbed through skin. Inhalation: Inhalation of high concentration may affect CNS characterized by headache, dizziness, confusion, and loss of coordination. Ingestion: May be harmful if swallowed. Ingested doses will produce nausea, dizziness and headache. May affect behavior, brain, CNS.

**Toxicological data:**

ORAL LD<sub>50</sub>: 2000mg/kg [Rat] (Ethanol)

VAPOR LC<sub>50</sub>: >20 mg/l [Mouse] 4h (Ethanol)

DERMAL LD<sub>50</sub>: >2000mg/kg [Rabbit] (Ethanol)

ORAL LD<sub>50</sub>Methyl alcohol: >50-300 mg/kg [Rat].

VAPOR LC<sub>50</sub>Methyl alcohol: >2-10 mg/l [Rat].

DERMAL LD<sub>50</sub>Methyl alcohol: >200-1000 mg/kg [Rabbit]

ORAL LD<sub>50</sub>: >2000mg/kg [Rat] (Ethyl Acetate)

VAPOR LC<sub>50</sub>: Not available

DERMAL LD<sub>50</sub>: >2000mg/kg [Rabbit] (Ethyl Acetate)

ORAL LD<sub>50</sub>MIBK: >2000 mg/kg [Rat].

VAPOR LC<sub>50</sub>MIBK: >10-20 mg/l 4h [Rat].

DERMAL LD<sub>50</sub>MIBK: >2000 mg/kg [Rabbit]

**Carcinogenicity:**

California prop 65: Methanol, Methyl isobutyl ketone.

## 12. ECOLOGICAL INFORMATION

LC50 (Pimephales promelas (fathead minnow)) 96 hours: > 100 mg/l; flow-through test Test substance: Ethanol;

LC50 (Pimephales promelas (fathead minnow)) 96 hours: 29,400 mg/l Test substance: Methanol;

LC50 (Pimephales promelas (fathead minnow)) 96 hours: > 100 mg/l; semi-static test Test substance: Ethyl Acetate;

LC50 (Danio rerio (zebra fish)) 96 hours: > 100 mg/l; static test, Test substance MIBK

## 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:** 1987

**NA:** N/A

**Shipping name:** ALCOHOLS, NOS

**Hazard Class:** 3

**Packing group:** PG II

**Exceptions:** Lty Qty ≤1L

## 15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (200-578-6) ethanol, (200-659-6) methanol, (205-500-5) Ethyl Acetate, ( 203-550-1) MIBK. WHMIS (Canada): Class B, Division 2: Flammable liquid. Class D, Division 2, Subdivision A: Very toxic material. Class D, Division 2, Subdivision B: Toxic material.

## 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).