

# SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Identification

Product Name                      Electrophoretic Tissue Clearing Solution  
Product Number                  C13001

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

Identified uses:                      Laboratory chemicals, Manufacture of substances

### Manufacturer

Logos Biosystems, Inc.  
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Dongan-gu, Anyang-si  
Gyeonggi-do 14055  
South Korea  
Telephone: +82-31-478-4185  
Fax: +82-31-360-4277  
E-mail: sales@logosbio.com

### Supplier

Logos Biosystems, Inc.  
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Telephone: +82-31-478-4185  
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**Emergency telephone number**    +82 31 478 4185

**For research use only. Not intended for human or animal diagnostic or therapeutic use.**

## 2. HAZARDS IDENTIFICATION

### **[GHS classification]**

#### **Classification of the substance or mixture**

##### **Classification according to Regulation (EC) No 1272/2008**

Skin corrosion/Irritation (Category 2), H315  
Serious eye damage/eye irritation (Category 1), H318  
Reproductive toxicity (Category 1B), H360FD

### **Label elements**

#### **Labelling according to Regulation (EC) No 1272/2008**

Hazard pictograms



Signal word

**Danger**

Hazard statements

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H360 - May damage fertility or the unborn child.

Precautionary statements

Prevention

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P264 - Wash skin thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P281 - Use personal protective equipment as required.

Response

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 - If skin irritation occurs: Get medical advice/attention.

P362 - Take off contaminated clothing and wash before reuse.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor/physician.

P308 + P313 - IF exposed or concerned: Get medical advice/attention.

Storage

P405 - Store locked up.

Disposal

P501 - Dispose of contents/container to an approved waste disposal plant.

**Other hazards**

None

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Mixtures**

Component	Synonyms	Formula	CAS No.	Weight %
Sodium dodecyl sulfate(SDS)	Dodecyl sodium sulfate, Dodecyl sulfate sodium salt, Lauryl sulfate sodium salt, SDS, Sodium lauryl sulfate	$C_{12}H_{25}NaO_4S$	151-21-3	3 – 5%
Boric acid	Orthoboric acid, boric acid, boracic acid, borofax	$H_3BO_3$	10043-35-3	1 – 2%
Sodium hydroxide	Caustic soda, Lye, Soda lye, Sodium hydrate	NaOH	1310-73-2	0.1 – 0.2%

### 4. FIRST AID MEASURES

**Description of first aid measures**

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, five artificial respiration. Consult a physician.
In case of skin contact	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### **Most important symptoms and effects, both acute and delayed**

The sodium salt of dodecyl sulfate has been reported to cause pulmonary sensitization resulting in hyperactive airway dysfunction and pulmonary allergy accompanied by fatigue, malaise, and aching. Significant symptoms of exposure can persist for more than two year and can be activated by a variety of nonspecific environmental stimuli such as automobile exhaust, perfumes, and passive smoking. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### **Indication of any immediate medical attention and special treatment needed**

No data available

## **5. FIRE-FIGHTING MEASURES**

### **Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **Special hazards arising from the substances or mixture**

Carbon oxides, Sulphur oxides, Sodium oxide, Borane/boron oxides

### **Advice of fire-fighters**

#### **Protective equipment**

Wear self-contained breathing apparatus for firefighting if necessary.

### **Further information**

No data available

## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin, eyes and clothing. Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**Reference to other sections**

For disposal see section 13.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

**Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**Specific end use(s)**

No data available

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters**

**Components with workplace control parameters**

**Exposure controls**

**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment**

<b>Respiratory protection</b>	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
<b>Skin protection</b>	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this report. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
<b>Eye/face protection</b>	Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

<b>Body protection</b>	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<b>Control of Environmental exposure</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Appearance</b>	Form: clear, liquid
<b>Odour</b>	No data available
<b>Odour Threshold</b>	No data available
<b>pH</b>	pH 8.5
<b>Melting point/freezing point</b>	No data available
<b>Initial boiling point and boiling range</b>	No data available
<b>Flash point</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Upper/lower flammability or explosive limits</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Vapour density</b>	No data available
<b>Specific Gravity/Relative density</b>	1,010 g/cm <sup>3</sup>
<b>Solubility</b>	No data available
<b>Partition coefficient: n-octanol / water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Dynamic viscosity</b>	No data available

### Other safety information

No data available

## 10. STABILITY AND REACTIVITY

### Stability

#### **Stability**

Stable under recommended storage conditions.

#### **Reactivity**

No data available

### Possibility of hazardous reactions

No data available

**Conditions to avoid**

No data available

**Incompatible materials**

Oxidizing agents

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides, Oxides of phosphorus, Borane/boron oxides, Sodium oxides

Other decomposition products - No data available

In the event of fire: see section 5.

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

<b>IARC</b>	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
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**Reproductive toxicity**

No data available

**Specific target organ toxicity – single exposure**

No data available

**Specific target organ toxicity – repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: Not available

**12. ECOLOGICAL INFORMATION**

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Other adverse effects**

Harmful to aquatic life.

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product

**14. TRANSPORT INFORMATION**

<b>UN number</b>	ADR/RID: -	IMDG: -	IATA: -
<b>UN proper shipping name</b>	ADR/RID: Not dangerous goods	IMDG: Not dangerous goods	IATA: Not dangerous goods
<b>Transport hazard class(es)</b>	ADR/RID: -	IMDG: -	IATA: -
<b>Packaging group</b>	ADR/RID: -	IMDG: -	IATA: -
<b>Environmental hazards</b>	ADR/RID: no	IMDG Marine pollutant: no	IATA: no
<b>Special precautions for user</b>	No data available		

**15. REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

No data available

**Chemical safety assessment**

No data available

**16. OTHER INFORMATION**

**Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Logos Biosystems, Inc. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See the reverse side of invoice or packing slip for additional terms and conditions of sale.

End of Safety Data Sheet