

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.
FL 2 & 3 28 Simindaero 327 beon-gil
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South Korea
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Supplier

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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

| | |
|-------------------------------|--|
| Respiratory protection | 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). |
| Skin protection | 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. |
| Eye/face protection | 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). |

| | |
|--|---|
| Body protection | 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. |
| Control of Environmental exposure | 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

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

| | |
|-------------|---|
| IARC | 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. |
|-------------|---|

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

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