Material Safety Data Sheet

1. Product Identification
   Product Name: Lyse
   Catalog Number: LYS 010 / LYS 011 / LYS 012

2. Composition and Information on Ingredients
   Hazardous Ingredients per EU criteria:
   - Quaternary Ammonium Salts < 6.5%

3. Hazard Identification
   Potential Health Effect
   Irritation of skin, eyes, and mucous membrane may be resulted in by Exposure.
   Product Hazard Classifications:
   - EU: Xi; R36/37/38
   - US OSHA: Yes
   - WHMIS: Exempt
   Reactivity: Minima risk

4. First Aid Measures
   Ingestion
   Call physician for medical attention if the product is taken internally. Do not attempt to induce vomiting, or to give any solid or liquid by mouth if the exposed subject is unconscious or semi-conscious.

   Inhalation
   Remove exposed individual to fresh air. If irritation or signs of toxicity occur, seek medical advice immediately.

   Skin Contact
   Wash the skin area with soap and water. Rinse with copious amount of water.

   Eye Contact
   Wash immediately with clean and flowing water. Continue for at least 15 minutes. Obtain medical advice if pain or irritation occurs.

5. Fire Fighting Measures
   Fire and Explosion Hazard
   Not applicable

   Extinguishing Media
   Use extinguishing media for surrounding fire.

   Special Fire and Explosion Hazard
   No special hazards

   Hazardous Combustion
   Products No combustion products posing significant hazards are expected from this product.

   Protective Equipment for Firefighters
   Self-contained breathing apparatus and full protective equipment are recommended for firefighters.
6. Accidental Release Measures

**Personal Precautions**
Use good laboratory procedures

**Clean-up Methods**
Wipe up spill and place in containers suitable for disposal.

**Environmental Precautions**
For large spills, take precautions to prevent entry into waterways, sewers, or surface waters.

7. Handling and Storage

**Safe Handling**
Avoid contact with eyes. Use good laboratory procedures.

**Recommended Storage Conditions**
Keep in the original packaging at the labeled temperature.

**Protection against Explosion And Fires**
No special measures required. Refer to the product label for additional information on storage conditions.

8. Exposure Controls and Personal Protection

**Engineering Controls**
Use in well-ventilated rooms. No special engineering controls are required.

**Respiratory Protection**
Under normal conditions. No respiratory protection is required of the use of this product.

**Hand Protection**
Impervious gloves are recommended if hand contact with the material is anticipated.

**Eye Protection**
Safety glasses or goggles are recommended if danger of splashes may be present.

**Skin Protection**
Laboratory coat or appropriate clothing is needed when working with the product.

9. Physical And Chemical Properties

**Appearance:** Liquid
**Color:** Colorless, Transparent.

**Odor:** Pungent

**pH:** 9.6 – 10.0

**Boiling Point:** NA

**Melting Point:** NA

**Flash Point:** NA

**Flammability:** Not flammable

**Auto Flammability:** Not flammable

**Density:** NA

**Solubility:** Water: Miscible
Fat: NA

Stability: Stable under normal temperatures and pressures.

Materials to Avoid: Incompatible with acids, bases and strong oxidizers.

Conditions to Avoid: None determined.

Hazardous Decomposition Products: No dangerous decomposition products known.

10. Toxicological Information

Toxicity Data NA

Routes of Exposure: Skin, eyes, inhalation and ingestion

Potential Effects of Acute Exposure: May cause irritation of the nose, throat, skin, and eyes.

Potential Effects of Chronic Exposure: Long-term exposure may result in liver toxic.

Symptoms of Overexposure: Chronic overexposure may produce effects similar to acute exposure.
Carcinogenicity: This product does not contain a reportable concentration (≥ 0.1%) of any ingredient listed as carcinogen by 67/548/EEC Annex I.

11. Ecological Information

General Notes: Do not introduce undiluted product or large quantities of it to reach surface water, water supply, or sewage system.

12. Disposal Considerations

Waste Disposal: Dispose unused product, packaging in accordance with local regulations. If unsure of the applicable requirements, contact the authorities for information.

13. Regulatory Information

NA.

14. Other Information

NA => NOT APPLICABLE or NO INFORMATION