



## Material Safety Data Sheet

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**bioMérieux, Inc.**  
595 Anglum Road  
Hazelwood, MO 63042  
For Information Call 1-800-638-4835  
Web Site: <http://www.biomerieux-usa.com/index.htm>

**EMERGENCY CONTACT**  
1-800-424-9300 (Chemtrec)  
Or Contact Your Local  
Poison Control Center

**Product Number:** 70494  
**Product Name:** ZYM A  
**Product Description:** Identification Reagent

### SECTION 2: HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**WARNING!** Hydrochloric acid may cause irritation or burns to the eyes and skin. Eye and skin irritant. Inhalation of vapors or mist can cause respiratory irritation. Do not get in eyes, on skin or clothing. Avoid breathing vapors. Keep container closed.

**US OSHA Classification (29CFR1910.1200):** Irritant  
**EU Classification (1999/45/EC):** R36/38. S26, S36  
(See section 16 for full text of R and S Phrases.)

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| CAS#      | COMPONENT             | PERCENTAGE |
|-----------|-----------------------|------------|
| 7647-01-0 | Hydrochloric acid     | <4%        |
| 77-86-1   | TRIS                  | 17.1%      |
| 151-21-3  | Sodium Lauryl Sulfate | 6.8%       |
| 7732-18-5 | Water                 | >72%       |

### SECTION 4: FIRST AID MEASURES

**Inhalation:** Immediately remove the victim to fresh air. If breathing has stopped administer artificial respiration. Get immediate medical attention.

**Skin Contact:** Immediately remove contaminated clothing. Flush contacted area with large amounts of water for at least 15 minutes. Get immediate medical attention.

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes while holding the eyelids open to assure that the entire surface is flushed. Get immediate medical attention.

**Ingestion:** Never give anything by mouth to an unconscious or convulsing person. If conscious, rinse mouth with water or milk. DO NOT INDUCE VOMITING. Get immediate medical attention.

### SECTION 5: FIRE FIGHTING MEASURES

**Extinguishing Media:** Use any media appropriate for the surrounding fire.

**Special Fire Fighting Procedures:** Firefighters should wear self-contained breathing apparatus and full protective clothing.

**Unusual Fire and Explosion Hazards:** Acids will react with most metals releasing hydrogen gas which is flammable and explosive.

**Hazardous Combustion Products:** Hydrogen chloride, acid vapors, sulfur oxides.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

Wear protective equipment (gloves, suit, goggles) as described in Section 8. Neutralize with sodium bicarbonate. Collect spill with absorbent and place in container for disposal.

#### SECTION 7: HANDLING AND STORAGE

Follow the directions on the package insert. Follow prudent laboratory practices of avoiding contact (breathing, touching, smoking, etc.) with a laboratory reagent. Avoid breathing vapors. Avoid contact with the skin and eyes. Keep away from excessive heat.

Follow storage instructions on the product label.

#### SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

| Component             | Exposure Limits                                   |
|-----------------------|---|
| Hydrochloric Acid     | 2 ppm Ceiling ACGIH TLV<br>5 ppm Ceiling OSHA PEL |
| TRIS                  | None Established                                  |
| Sodium Lauryl Sulfate | None Established                                  |
| Water                 | None Established                                  |

**Ventilation:** General laboratory ventilation should be adequate.

**Respiratory Protection:** If exposures exceed the occupational exposure limits wear an approved acid gas respirator or supplied air respirator. Selection and use of respiratory protection must be in accordance with OSHA or other applicable requirements.

**Gloves:** Impervious gloves such as butyl rubber, neoprene, or natural rubber.

**Eye Protection:** Chemical safety goggles.

**Other Protective Equipment/Clothing:** Appropriate impervious clothing as needed to prevent contact. An eye wash facility should be available in the work area.

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Clear liquid with no odor.

|   |   |
|---|---|
| <b>pH:</b> 7.8                                | <b>Boiling Point:</b> Not determined            |
| <b>Vapor Pressure:</b> Same as water          | <b>Melting Point:</b> Not determined            |
| <b>Vapor Density:</b> 1.3 (HCl)               | <b>Percent Volatile:</b> >71% (water)           |
| <b>Evaporation Rate:</b> Not available        | <b>Specific Gravity:</b> 1.04                   |
| <b>Water Solubility:</b> Complete             | <b>Coefficient of Oil/Water:</b> Not determined |
| <b>Flash Point:</b> None                      | <b>Autoignition Temp:</b> None                  |
| <b>Flammability Limits:</b> LEL: N/A UEL: N/A |   |

#### SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Avoid light and heat.

**Incompatibility:** Alkalis, most common metals, amines, metal oxides, carbonates, cyanides, sulfides, sulfuric acid.

**Hazardous Decomposition Products:** Hydrogen chloride gas, hydrogen, chlorine, oxides of carbon, sulfur and

nitrogen. Hydrochloric acid will react with most metals releasing flammable and explosive hydrogen gas.

**Hazardous Polymerization:** Will not occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

### ACUTE HEALTH HAZARDS

**Inhalation:** Inhalation of vapors or mists may cause irritation to the mucous membranes and respiratory tract with burning of the nose and throat.

**Skin Contact:** Contact may cause irritation.

**Eye Contact:** Contact may cause irritation with pain, tearing and swelling.

**Ingestion:** Ingestion may cause irritation to the mouth, throat and gastrointestinal irritation. May cause nausea, vomiting, and diarrhea.

**Chronic Health Hazards:** Prolonged or frequent exposure may cause dermatitis. Chronic exposure to acid vapors and mists may cause dental erosion.

**Carcinogen Status:** None of the components of this product is listed as a carcinogen or suspected carcinogen by ACGIH, IARC, NTP or OSHA.

**Medical Conditions Aggravated by Exposure:** Individuals with pre-existing respiratory and/or skin disease may be at increased risk from exposure to this product.

### Acute Toxicity Values:

Hydrochloric acid: Oral rabbit LD50: 900 m/kg; Inhalation rat LC50: 3124 ppm/1 hr.

Sodium lauryl sulfate: Oral rat LD50: 1288 mg/kg; Skin rabbit LDLo: 10,000 mg/kg

TRIS: Oral rat LD50: 5900 mg/kg

## SECTION 12: ECOLOGICAL INFORMATION

Hydrochloric acid: LC100 Trout 10 mg/L/24 hr; LC50 Shrimp: 100-330 ppm/48 hr.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of product in accordance with all local, state/provincial and federal regulations.

**Container Disposal:** Empty containers should be collected for proper disposal.

## SECTION 14: TRANSPORT INFORMATION

Not regulated for transportation by DOT, IATA/ICAO or IMDG.

## SECTION 15: REGULATORY INFORMATION

**SARA 311/312:** Hazard Categories for SARA 311/312 Reporting: Acute Health

**SARA 313:** This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Section 313(40 CFR372):

Hydrochloric acid <4%

**CERCLA Section 103 Reportable Quantity:** Product: 125,000 lbs (Hydrochloric acid: 5000 lbs). Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**California Proposition 65:** This product contains the following substances known to the State of California to cause cancer and/or reproductive harm: None known.

**Canada WHMIS Classification:** Class D-2-B

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

|                                      |
|--------------------------------------|
| <b>SECTION 16: OTHER INFORMATION</b> |
|--------------------------------------|

**NFPA Hazard Rating:** Health: 1 Fire: 0 Instability: 0

**Revision History:**

**11/18/09:** Updated format – Switched sections 2 and 3, Moved Exposure Limits to Section 8, Transportation information, Reworded CERCLA statement.

Full text of R and S Phrases from Section 2:

R36/38: Irritating to eyes and skin.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36: Wear suitable protective clothing.

The above information is believed to be correct as of the date of this sheet but does not purport to be all inclusive and shall be used only as a guide. Since the use of this information and the conditions of use of the product are not within the control of bioMérieux S.A. nor bioMérieux, Inc., it is the user's obligation to assure safe use of this product