Material Safety Data Sheet

Mycoplasma Pneumonia IgM ELISA

IDENTIFICATION OF THE PREPARATION AND COMPANY NAME.

Supplier: Diagnostic Automation / Cortez Diagnostics Inc.
21250 Califa Street, Suite 102 and 116, Woodland Hills, CA 91367 USA

Product Name: Mycoplasma Pneumonia IgM ELISA
Catalog No: 8043-2
Synonyms: N/A
Intended Use: Laboratory Use

HAZARD IDENTIFICATION

Emergency OVERVIEW & HAZARDS PRESENT TO MAN AND THE ENVIRONMENT

- Poison.
- Danger.
- Corrosive.

Liquid and mist cause severe burns to all tissue. May be fatal if swallowed or inhaled. Inhalation may cause lung damage.

REGULATORY STATUS

This material is classified as non-hazardous under OSHA regulations.

While this material is not classified as hazardous under OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product.

X This material is classified as hazardous under OSHA regulations.

PRIMARY ROOTS OF EXPOSURE:

Inhalation, Skin, Ingestion.

POTENTIAL HEALTH EFFECTS:

Eyes:
Vapors are irritating and may cause damage to the eyes. Contact may cause severe burns and permanent eye damage.

Skin:
Can cause redness, pain, and severe skin burns. Concentrated solutions cause deep ulcers and discolor skin.

Inhalation:
Inhalation of vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract, and in severe cases, pulmonary edema, circulatory failure, and death.

Ingestion:
Swallowing hydrochloric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract. May cause nausea, vomiting, and diarrhea. Swallowing may be fatal.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Persons with pre-existing skin disorders or eye disease may be more susceptible to the effects of this substance.

CHRONIC HEALTH EFFECTS:

Eyes:
Long-term exposures seldom occur due to the corrosive properties of the acid.

Skin:
Repeated exposure to low concentrations of acid solutions, mist or vapor can cause redness, swelling and pain (dermatitis).

Inhalation:
Repeated exposure to low concentrations of acid mist or vapor may cause bleeding of nose and gums. Chronic bronchitis and stomach pain (gastriitis) has also been reported.

Ingestion:
Repeated exposures to low concentrations of HCl mist can cause brownish discoloration and damage to tooth enamel. Dental erosion becomes more severe with increased exposure.

COMPOSITION INFORMATION

Chemical Name: Proprietary Mixture
Percent: Proprietary Mixture
CAS Number:
- 56-81-5 (Glycerol)
- 7647-01-0 (Hydrochloric Acid (HCl))
- 26628-22-8 (Sodium Azide)
- 7647-14-5 (Sodium Chloride)
- 7757-82-6 (Sodium Sulfate (Anhydrous))
- 9005-64-5 (Tween 20)

Risk Phrases:
R22,R23,R25,R35,R36/37/38

Safety Phrases:
S1,S2,S9,S24,S25,S26,S28,S36,S37,S39,S45,S46

Symbols:
(T) Toxic, (C ) Corrosive, (Xi) Irritant

EINECS / ELINCS Number:
- 200-289-5 (Glycerol)
- 231-595-7 (Hydrogen Chloride)
- 247-852-1 (Sodium Azide)
- 231-648-7 (Sodium Chloride)
- 231-820-9 (Sodium Sulfate)

FIRST AID MEASURES

SEEK MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE

FIRST AID MEASURES:

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical attention immediately.

Skin:
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash cloth before reuse. Seek medical attention immediately.

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.

Ingestion:
DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

Instructions for Physician:
No additional instructions.

FIRE FIGHTING MEASURES

NFFA Classification

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>2</td>
<td>4 (Contact)</td>
</tr>
</tbody>
</table>

FLAMMABILITY PROPERTIES

Flash Point: 160°C (Glycerol)
Method: Closed Cup
**Flammability Limits:**

<table>
<thead>
<tr>
<th>LEL</th>
<th>UEL</th>
</tr>
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<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Autoignition Temperature:** 370°C (Glycerol)

**Hazardous Combustion Products:** In fires fueled by other materials, hydrogen chloride may be released.

**Extinction Media:** If involved in a fires, use water spray. Neutralize with soda ash or slaked lime. Prohibited Extinguishing Media: None identified.

**Firefighting Instructions:** In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Structural firefighter’s protective clothing is ineffective for fires involving hydrochloric acid.

**Unusual Fire and Explosion Hazards:** Extreme heat or contact with metals can release flammable hydrogen gas.

**ACCIDENTAL RELEASE MEASURES**

**Personnel Precautions:**

- Wear appropriate personal protective equipment as specified in Section 8.

**Environmental Precautions:**

- Do not flush to sewer. US Regulations (CERCLA) requires reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800)424-8802.

**Cleanup Methods:**

- Ventilate are of leak or spill. Isolate hazard area. Keep unnecessary and impervious boots, apron, or coveralls should be worn as needed in areas of unusual exposure to prevent skin contact.

**GENERAL HYGIENE CONSIDERATIONS:**

- Maintain eye wash fountain and quick drench facilities in work area.

**HANDLING AND STORAGE**

**Handling:**

- Do not wash out container and use it for other purposes. When diluting, the acid should always be added slowly to water and in small amounts. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing. When opening metal containers, use non-sparking tools due to the possibility of presence of hydrogen. Containers containing this material may be hazardous when empty since they retain product residues.

**Storage:**

- Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. Keep out of direct sunlight and away from heat, water, and incompatible materials.

**Specific Uses:**

- Product is intended for laboratory use.

**EXPOSURE CONTROLS/PERSONAL PROTECTION**

**EXPOSURE LIMIT VALUES:**

<table>
<thead>
<tr>
<th>Compound</th>
<th>OSHA PEL (mg/m³)</th>
<th>ACGIH TLV (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Hydrochloric Acid (HCI)</td>
<td>7</td>
<td>7.5</td>
</tr>
<tr>
<td>Sodium Azide</td>
<td>0.3</td>
<td>0.29</td>
</tr>
</tbody>
</table>

**Engineering Controls:**

- A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred due to its ability to control the emissions of the contaminant at its source, preventing dispersion of vapors into the general work area.

**PERSONAL PROTECTIVE EQUIPMENT:**

**Respiratory Protection:**

- NIOSH Approved Personal Respirators should be utilized. If the exposure limit is exceeded, a full face piece respirator with an acid gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.

**Hand Protection:**

- Rubber or neoprene gloves should be worn when handling this material.

**Eye/Face Protection:**

- Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

**Skin Protection:**

- Impervious boots, apron, or coveralls should be worn as needed in areas of unusual exposure to prevent skin contact.

**GENERAL HYGIENE CONSIDERATIONS:**

- No information available.

**OTHER PROTECTIVE EQUIPMENT:**

- No additional PPE required.

**PHYSICAL & CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELISA Mycoplasma IgM Test System</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PRODUCT:</strong></td>
<td><strong>General Information:</strong></td>
</tr>
<tr>
<td></td>
<td>Appearance: Clear/Semi-Clear Liquid</td>
</tr>
<tr>
<td></td>
<td>Odor: Pungent odor of hydrogen chloride</td>
</tr>
<tr>
<td></td>
<td>Important health, Safety, and Environmental Information:</td>
</tr>
<tr>
<td></td>
<td>Boiling Point: 53 °C (127°F) (HCl)</td>
</tr>
<tr>
<td></td>
<td>Melting Point: -74°C (-101°F) (HCl)</td>
</tr>
<tr>
<td></td>
<td>Flash Point: N/A</td>
</tr>
<tr>
<td></td>
<td>Explosive Properties: N/A</td>
</tr>
<tr>
<td></td>
<td>Oxidizing Properties: No information available</td>
</tr>
<tr>
<td></td>
<td>Specific Gravity (H₂O = 1): 1.16 (HCl)</td>
</tr>
<tr>
<td></td>
<td>pH: 1 (HCl)</td>
</tr>
<tr>
<td></td>
<td>Water Solubility: Soluble</td>
</tr>
<tr>
<td></td>
<td>Partition Coefficient (n-octanoll water): No information available</td>
</tr>
<tr>
<td></td>
<td>Viscosity: No information available</td>
</tr>
<tr>
<td></td>
<td>Vapor Pressure (mm Hg): 25 mm of Hg at 25 °C (77°F) (HCl)</td>
</tr>
<tr>
<td></td>
<td>Vapor Density (Air = 1): No information available</td>
</tr>
<tr>
<td></td>
<td>Evaporation Rate: No information available</td>
</tr>
<tr>
<td></td>
<td>% Volatile (By Volume @ 68°F): 100(HCl)</td>
</tr>
</tbody>
</table>

**STABILITY & REACTIVITY**

**Stability:** Stable under normal conditions of use and storage. Containers may burst when heated.

**Conditions to Avoid:**

- Avoid heat and direct sunlight.

**Materials to Avoid:**

- A strong mineral acid, concentrated hydrochloric acid is incompatible with many substances and highly reactive with strong bases, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde.

**Hazardous Decomposition Products:**

- When heated to decomposition emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

**Hazardous Polymerization:**

- Will not occur.

**TOXICOLOGICAL INFORMATION**

<table>
<thead>
<tr>
<th>Type of Test</th>
<th>Route of Exposure</th>
<th>Effects</th>
<th>Species Observed</th>
<th>Dose Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albumin Bovine Serum</td>
<td>Intraperitoneal</td>
<td>Immunological</td>
<td>Rodent – Rat</td>
<td>0.2 ppm</td>
</tr>
</tbody>
</table>
including allergic increase in humoral immune response

**Glycerol:**
- LD_{50}: Oral Details of toxic effects not reported other than lethal dose value. Rodent – Rat 12600 mg/kg

**HCl:**
- LC_{50}: Inhalation Lungs, Thorax, or Respiration – acute pulmonary edema. Rodent – Rat 7004 mg/m³ V30M

**Sodium Azide:**
- LD_{50}: Oral Details of toxic effects not reported other than lethal dose value. Rodent – Rat 27 mg/kg

**Sodium Chloride:**
- LD_{50}: Oral Details of toxic effects not reported other than lethal dose value. Rodent – Rat 3000 mg/kg

**Sodium Sulfate:**
- LD_{50}: Oral Details of toxic effects not reported other than lethal dose value. Rodent – Rat 5989 mg/kg

**Tween 20 (Polyoxyethylene (20) sorbitan monolaurate):**
- LD_{50}: Oral Details of toxic effects not reported other than lethal dose value. Rodent – Rat 36700 UL / KG

**ECOLOGICAL INFORMATION**

**Ecotoxicity:**
This material is expected to be toxic to aquatic life.

**Mobility:**
When released into the soil, this material may leach into groundwater.

**Persistence and Degradability:**
When released into the soil, this material is not expected to biodegrade.

**Bioaccumulative Potential:**
No information available.

**DISPOSAL CONSIDERATION**
Disposal should be in accordance with Local, State, and Federal regulations.

**TRANSPORT INFORMATION**

**DOT CLASSIFICATION:**
- UN Number: N/A
- Class: ORM-D
- Proper Shipping Name: Consumer Commodity
- Packing Group: N/A
- Marine Pollutant: N/A
- Other Information: N/A
- IATA CLA ID8000
- UN Number: N/A
- Class: 9
- Proper Shipping Name: Consumer Commodity
- Packing Group: N/A
- Marine Pollutant: N/A
- Other Information: N/A

**UN CLASSIFICATION:**
- UN Number: UN 1789
- Class: 8
- Proper Shipping Name: Hydrochloric Acid, solution
- Packing Group: II
- Marine Pollutant: N/A
- Other Information: Limited Quantity

**REGULATORY INFORMATION**

**US REGULATIONS**

**ACGIH**
- Listed: (HCl) (TLV: 7.5 mg/m³) (Ceiling) (Sodium Azide) (TLV: 10 mg/m³) (Vapor)

**CAA Section 112**
- CERCLA Listed: (HCl)

**IARC**
- Not Listed

**OSHA**
- Listed: (HCl) (PEL: 7 mg/m³) (Ceiling) (Sodium Azide) (PEL: 0.3 mg/m³) (Ceiling) (Total Dust: Glycerin Mist) (PEL: 15 mg/m³) (Respirable Fraction: Glycerin Mist) (5mg / m³)

**SARA Title III**
- Listed (Hydrogen Chloride: gas only) (Sodium Azide)

**TSCA**
- Listed (HCl) (Sodium Azide) (Sodium Chloride)

**STATE REGULATIONS**

**MA Substance List**
- Listed (HCl) (Glycerin Mist) (Sodium Azide)

**NJ RTK Hazardous Substance List**
- Listed (HCl) (Sodium Azide)

**PA Hazardous Substance List**
- Listed (1,2,3 Propanetriol) (Sodium Azide)

**Canadian WHMIS**
- Listed (HCl) (Sodium Azide) (Sodium Chloride)

**EUROPEAN UNION**

**Risk Phrases:**
- R22: Harmful if swallowed.
- R23: Toxic if swallowed.
- R35: Causes severe burns
- R36:/37/38: Irritating to eyes, respiratory system and skin.

**Safety Phrases:**
- S1: Keep locked up.
- S2: Keep out of the reach of children.
- S9: Keep container in a well-ventilated place.
- S24: Avoid contact with skin.
- S25: Avoid contact with eyes.
- S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S28: Avoid contact with skin, wash immediately with plenty of water.
- S36: Wear suitable protective clothing.
- S37: Wear suitable gloves.
- S39: Wear eye/face protection.
- S45: In case of accident you fell unwell, seek medical advice immediately.
- S46: If swallowed, seek medical advice immediately and show this container or label.

**Hazard Symbols:**
- (X) Irritant
Use Restrictions:
No restrictions.

- Each donor unit used in the preparation of the controls was tested by an FDA approved method for the presence of antibody to HIV-1, HIV-2, and HCV, as well as Hepatitis B surface antigen, and found to be negative (not repeatedly reactive).
- This product contains albumin from bovine serum. It was derived from bovine blood collected at a USDA licensed establishment. All donor animals were a source of the United States, a country in which Bovine Spongiform Encephalopathy is not known to exist.
- To the best of our knowledge, the information contained herein is accurate. However, neither Diagnostic Automation, Inc. nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.