Section 1  Product Description

Product Name: Gastric Juice, Artificial
Recommended Use: Science education applications
Synonyms: None known
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150

Chemical Information:
800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2  Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER

Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

GHS Classification:
Respiratory Sensitisation Category 1, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2

Section 3  Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>99.18</td>
</tr>
<tr>
<td>Pepsin</td>
<td>9001-75-6</td>
<td>0.5</td>
</tr>
<tr>
<td>Hydrogen Chloride</td>
<td>7647-01-0</td>
<td>0.22</td>
</tr>
<tr>
<td>Thymol</td>
<td>89-83-8</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Section 4  First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5  Firefighting Procedures

Extinguishing Media: Use media suitable to extinguish surrounding fire.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Fire and/or Explosion Hazards: None Known
Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

Section 6  Spill or Leak Procedures
Steps to Take in Case Material Is Released or Spilled:
Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

Section 7 Handling and Storage


Storage: Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Green - general chemical storage

Section 8 Protection Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH (TWA)</th>
<th>ACGIH (STEL)</th>
<th>OSHA PEL (TWA)</th>
<th>OSHA PEL (STEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pepsin</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Hydrogen Chloride</td>
<td>N/A</td>
<td>2 ppm (Ceiling)</td>
<td>N/A</td>
<td>5 ppm (Ceiling)</td>
</tr>
<tr>
<td>Thymol</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Control Parameters

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment (PPE):
Lab coat, apron, eye wash, safety shower.

Respiratory Protection: No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 11. A respirator is not normally required.

Respirator Type(s): None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: No information available

Section 9 Physical Data

Formula: See Section 3
Molecular Weight: No data available
Appearance: Colorless Liquid
Odor: No data available
Odor Threshold: No data available
pH: No data available
Melting Point: No data available
Boiling Point: 100 C
Flash Point: No data available
Flammable Limits in Air: No data available

Vapor Pressure: No data available
Evaporation Rate (BuAc=1): No data available
Vapor Density (Air=1): No data available
Specific Gravity: 1
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: 10
Percent Volatile by Volume: No data available

Section 10 Reactivity Data

Reactivity: Not generally reactive under normal conditions.
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: None known.
Incompatible Materials: Water-reactive materials
Hazardous Polymerization: Will not occur
Section 11  Toxicity Data

Routes of Entry
Ingestion, Skin contact.

Symptoms (Acute): No data available
Delayed Effects: No data available

Acute Toxicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Oral LD50 Rat 90000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pepsin</td>
<td>9001-75-6</td>
<td>Oral LD50 Rabbit 900 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrogen Chloride</td>
<td>7647-01-0</td>
<td>Oral LD50 Rabbit 900 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thymol</td>
<td>89-83-8</td>
<td>Oral LD50 GUINEA PIG 880 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oral LD50 HUMAN 2 GM/KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oral LD50 Rat 980 mg/kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pepsin</td>
<td>9001-75-6</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Hydrogen Chloride</td>
<td>7647-01-0</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Thymol</td>
<td>89-83-8</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: Evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.

Target Organ Effects:
Acute: No information available
Chronic: No information available

Section 12  Ecological Data

Overview: This material is not expected to be harmful to the ecology.
Mobility: This material is expected to have high mobility in soil. It absorbs weakly to most soil types.
Persistency: Evaporation into atmosphere, dissolved in water.
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Eco Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No data available</td>
</tr>
<tr>
<td>Pepsin</td>
<td>9001-75-6</td>
<td>96 HR LC50 GAMBUSIA AFFINIS 282 MG/L [STATIC]</td>
</tr>
<tr>
<td>Hydrogen Chloride</td>
<td>7647-01-0</td>
<td>96 HR LC50 PIMEPHALES PROMELAS 3.2 MG/L [STATIC]</td>
</tr>
<tr>
<td>Thymol</td>
<td>89-83-8</td>
<td>96 HR LC50 BRACHYDANIO RERIO 5 MG/L [STATIC]</td>
</tr>
</tbody>
</table>

Section 13  Disposal Information
Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance. If discarded, this product is considered a RCRA corrosive waste, D002.

Section 14 Transport Information

Ground - DOT Proper Shipping Name: Not regulated for transport by US DOT.
Air - IATA Proper Shipping Name: Not regulated for air transport by IATA.

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>§ 313 Name</th>
<th>§ 304 RQ</th>
<th>CERCLA RQ</th>
<th>§ 302 TPQ</th>
<th>CAA 112(2) TQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pepsin</td>
<td>9001-75-6</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Hydrogen Chloride</td>
<td>7647-01-0</td>
<td>Hydrochloric acid</td>
<td>5000 lb RQ</td>
<td>5000 lb final RQ; 2270 kg final RQ</td>
<td>500 lb TPQ (gas only)</td>
<td>No</td>
</tr>
<tr>
<td>Thymol</td>
<td>89-83-8</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Section 16 Additional Information

Revised: 09/03/2014  Replaces: 09/03/2014  Printed: 04-21-2015

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH American Conference of Governmental Industrial Hygienists
CAS Chemical Abstract Service Number
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
DOT U.S. Department of Transportation
IARC International Agency for Research on Cancer
N/A Not Available
NTP National Toxicology Program
OSHA Occupational Safety and Health Administration
PEL Permissible Exposure Limit
ppm Parts per million
RCRA Resource Conservation and Recovery Act
SARA Superfund Amendments and Reauthorization Act
TLV Threshold Limit Value
TSCA Toxic Substances Control Act
IDLH Immediately dangerous to life and health