MATERIAL SAFETY DATA SHEET
Marianna Industries, Inc.
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Omaha, Nebraska 68137-1296
Non-Emergency (402) 593-0211
EMERGENCY: Infotrac (800) 457-4280

Revised: 04/07

I. PRODUCT INFORMATION

PRODUCT NAME: Marianna™ Cool Mist Antiseptic
CHEMICAL NAME: < 50% Alcohols, Ethanol, Tert-Butyl Alcohol, Denatonium Benzoate
CAS NUMBER: N/A
CHEMICAL TYPE: Mixture
CHEMICAL STATE: Liquid

INGREDIENTS:

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Chemical Name</th>
<th>EHS NTP</th>
<th>IARC SUB</th>
<th>% by Weight/Weight</th>
<th>SARA</th>
<th>OSHA</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>3734-33-6</td>
<td>Deatonium Benzoate</td>
<td>&lt; 0.1</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethanol</td>
<td>&lt; 50</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75-65-0</td>
<td>tert-Butyl alcohol</td>
<td>&lt; 0.1</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

II. HAZARDOUS IDENTIFICATION:
Hazard Category:

_X_ Acute      _X_ Chronic      _X_ Fire      _______ Pressure      _______ Reactive

Hazardous Identification Information:
Poisonous! Danger! May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Vapor is Harmful. Flammable! Affects central nervous system. Causes irritation to skin, eyes, and respiratory tract. May affect liver, blood, reproductive system.

WARNING! Contents FLAMMABLE! Do not spray near open flame or while smoking. Do not smoke until hair is fully dry. Avoid spraying in eyes. If eye contact occurs, rinse promptly with plenty of water. Do not store at temperatures above 120°F. KEEP OUT OF REACH OF CHILDREN. Use only as directed. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.
III. HAZARDOUS COMPONENTS

TOXICITY DATA

CHEMICAL NAMES:  
Alcohols  
Ethanol  
Tert-Butyl Alcohol  
Denatonium Benzoate

LD50  
LC50

IV. FIRST AID MEASURES:

EYE CONTACT: Liquid and vapor may cause irritation. Splashes may cause temporary pain and blurred vision. Remove Contaminated Clothing. Clean before reuse. Flush immediately with cool running water for at least 15 to 20 minutes, separating eyelids with fingers. Consult a physician.

SKIN CONTACT: May cause irritation, cracking, flaking, and de-fatting of skin on prolonged contact. Remove contaminated clothing. Clean before reuse. Wash with soap and water, then rinse with water. Consult a physician.

INHALATION: May cause irritation to the mucous membranes of the upper respiratory tract. Exposure over 1000 ppm may cause headache, drowsiness, lassitude, loss of appetite, inability to concentrate, and throat irritation. Immediately remove to fresh air. If victim has stopped breathing give artificial respiration, preferably mouth-to-mouth. Get medical attention immediately.

INGESTION: Can cause depression of Central Nervous System, nausea, vomiting, diarrhea, intoxication, and in acute cases can cause death. May be harmful or fatal if swallowed. Conscious or able to swallow—Have victim drink water or milk to dilute. Never Give Anything By Mouth If Unconscious or Convulsing. Call a Physician and/or Poison Control Immediately. Induce vomiting only if advised by the Physician or Poison Control. Immediate medical attention may be necessary.

CHRONIC EFFECTS OF EXPOSURE: Damage may occur to heart, kidneys and liver. People with pre-existing skin disorders, eye problems, or impaired kidney or liver function may be more susceptible to effects.

V. EXPOSURE CONTROL MEASURES

Ventilation is needed where vapors escape to workplace air.

EYE PROTECTION: Safety Glasses and/or Full Face Shield where splashing is possible.

SKIN PROTECTION: Impervious clothing including boots, gloves, lab coat, apron, or coveralls as appropriate.

OTHER PROTECTIVE EQUIPMENT: Eyewash Station and Safety Shower.

RESPIRATORY PROTECTION: Air purifying respirator, NIOSH approved

VENTILATION: Sufficient exhaust to keep concentration below 1000 ppm
VI: FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: 55.0 F CC
   Lower Explosive Limit: (Ethanol) 3.3%
   Upper Explosive Limit: (Ethanol) 19.0%

EXTINGUISHING MEDIA: Use Dry Chemical: Alcohol Foam, Carbon Dioxide. Water may be ineffective but water should be used to keep fire-exposed container(s) cool.

SPECIAL FIRE FIGHTING INSTRUCTIONS: If leak / spill has not ignited, use water spray to disperse vapors and protect people attempting to stop the leak. Water spray may be used to flush spills away from exposure and to dilute spills to non-flammable mixtures. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece in pressure demand or other positive pressure mode. Water can be used to extinguish flames and cool fire-exposed containers.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Above flashpoint, vapor –air mixtures are explosive. Vapors can flow along surfaces to ignition sources and flash back. Sealed containers may rupture when heated. Sensitive to static discharge. Alcohol flames may be difficult to see because they are virtually colorless. Combustion products include but not limited to Carbon Dioxide and Carbon Monoxide. Vaporizes easily at room temperatures. Prevent buildup of vapors.

ACCIDENTAL RELEASE MEASURES:
Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate protective equipment. Isolate hazard area. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriated container or absorb with an inert material (Vermiculite, dry sand, earth, etc.) and place in a chemical waste container. DO NOT use combustible materials, such as sawdust. Do Not flush to sewer!

VII: Physical and Chemical Properties:

BOILING POINT: (Ethanol) 173 F
FLASHPOINT: 22° C
MELTING POINT: (Ethanol) -173F
VAPOR PRESSURE: (mm Hg): 44.6 @ 68F
SOL. IN WATER: Completely
SPECIFIC GRAVITY: 0.924 – 0.928 @ 22°C
pH: N/A
EVAPORATION RATE: (Ethanol) 3.0
VAPOR DENSITY: (AIR= 1) (Ethanol) 1.59

APPEARANCE/ODOR OF FINISHED PRODUCT: Clear liquid, green in color with a pleasant fragrance
VIII. STABILITY AND REACTIVITY DATA:

STABILITY: Stable under normal conditions.

INCOMPATIBILITY: (Materials to avoid) Strong Oxidants, Silver Salts, Acid Chlorides, Alkali Metals, Metal Hydrazine, and many other substances.

DECOMPOSITION/ BT PRODUCTS: Carbon Dioxide, Carbon Monoxide.

HAZARDOUS POLYMERIZATION: None

IX. ENVIRONMENTAL & DISPOSAL INFORMATION

ACTION TO TAKE FOR SPILLS/LEAKS: Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment. Isolate hazard area. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriately sized container or absorb with an inert material (vermiculite, dry sand, earth, etc.) and place in a chemical waste container. Do not use combustible materials, such as sawdust. Do not flush to sewer.

DISPOSAL METHOD: Dispose of in accordance with all local, state and federal agencies.

X. PRECAUTIONS FOR SAFE HANDLING, STORAGE AND USE

Protect against physical damage. Store in cool dry, well ventilated area. Keep away from heat, sparks, and flame. Avoid contact with eyes. Keep container closed. Use with adequate ventilation. Ground container when transferring.

Vapors may collect in containers. Treat empty containers as hazardous. Sudden release of hot organic chemical vapors / mists from process equipment operating at elevated temperatures may result in ignition with out the presence of obvious ignition sources.

XI. SHIPPING INFORMATION

DOMESTIC (LAND D.O.T.)

Proper Shipping Name: Alcohols, N.O.S. (Ethanol/ tert-butyl alcohol/ Denatonium Benzoate)

Hazard Class: 3 (Flammable Liquid)
UN / NA: UN1987
Packing Group: II
Emergency Response Guide # 127

THE SHIPPING CARTON

IDENTIFICATION MUST BE LISTED THE SAME AS THE DESCRIPTION ON THE MSDS !!

INTERNATIONAL (Water, I.M.O.)

Proper Shipping Name: Alcohols, N.O.S. (Ethanol/ tert-butyl alcohol/ Denatonium Benzoate)
Hazard Class: 3 (Flammable Liquid)
Un / NA: UN1987
Packing Group: II
Emergency Response Guide # 127
Ethanol:
Soil: Readily biodegrades, quickly evaporates, leaches into groundwater.
Air: Readily degrades by reaction with photo-chemically produced hydroxyl radicals, readily removed by dry and wet deposition, has a half-life between 1 and 20 days/

XII. ADDITIONAL INFORMATION

THIS MATERIAL IS IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT.

For additional product safety or product use information, contact the product manager at the address or phone number listed on page one.

DISCLAIMER
The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond this company's control, it is the users responsibility both to determine safe conditions for use of this product and to assume liability for loss, injury, damage or expense arising out of the product's improper use. No warranty, expressed or implied, regarding the product described herein shall be created by or inferred from any statement or omission in this MSDS. Various government agencies (e.g. DOT, EPA and FDA) may have specific regulations concerning the transportation, handling, storage, use or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.

Marianna™ Cool Mist Antiseptic