Safety Data Sheet
Hand Sanitizer

Issuing Date: 1 April 2020  Revision Date: 1 April 2020  ECR # 27042

Section 1 - Identification of the substance and Company Identification

PRODUCT IDENTIFIER
Product Name: Hand Sanitizer
Substance Name: Ethyl Alcohol Sanitizer
Identified Uses: Used for Hand Disinfection

RECOMMENDED USE
Hand Sanitizer

DETAILS OF SUPPLIER
Company Name: DenMat-Holdings, LLC
Address: 1017 W. Central Av.
Tel: 805-346-3700
Fax: 805-347-7928
Email: info@denmat.com

Section 2 - Hazards Identification

EMERGENCY OVERVIEW:
Ethyl Alcohol is Flammable Liquid and Vapor. Harmful if swallowed or inhaled. Causes Irritation to Eyes and Respiratory Tract. Affects Central Nervous System. May Be Harmful if Absorbed Through Skin. May Cause Irritation to Skin

POTENTIAL ACUTE HEALTH EFFECTS:
Inhalation: Breathing in small amounts of this material during normal handling is not likely to cause harmful effects. However, breathing large amounts may be harmful and may affect the respiratory system and mucous membranes (irritation), behavior and brain (Central nervous system depression - headache, dizziness, drowsiness, stupor, incoordination, unconsciousness, coma and possible death), peripheral nerve and sensation, blood, urinary system, and liver.

Eye: Can cause eye irritation.
Skin: May cause mild skin irritation, and sensitization.
Ingestion: Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Swallowing large amounts may cause gastrointestinal tract irritation with nausea, vomiting and diarrhea, abdominal pain. It also may affect the urinary system, cardiovascular system.
POTENTIAL CHRONIC HEALTH EFFECTS
Carcinogenic Effects: Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC.
Mutagenic Effects: Not Available
Teratogenic Effects: Not Available
Developmental Toxicity: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE]. The substance may be toxic to kidneys, liver, skin, central nervous system (CNS).

Section 3 - Composition/Information on Ingredients

CHEMICAL CHARACTERISATION
Description: Mixture of substances listed below

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>Weight%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>80</td>
</tr>
</tbody>
</table>

Remark: The composition was not shown for commercial secret.

Section 4 - First Aid Measures

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Skin Contact: In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Notes for the Doctor: Treat symptomatically and supportively.

Section 5 - Fire-Fighting Measures

Suitable Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media: Water may be ineffective. Do not use a solid water stream as it may scatter and spread fire.

Flash Point: 13.9 °C / 57 °F
Method: No information available
Autoignition Temperature: 362.8 °C / 685 °F

Explosion Limits
Upper: 18.0 vol %
Lower: 3.3 vol %
Sensitivity to Mechanical Impact: No information available
Sensitivity to Static Discharge: No information available

Specific Hazards Arising from the Chemical
Flammable. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.
Containers may explode when heated. Vapors may form explosive mixtures with air.

Hazardous Combustion Products
Carbon monoxide (CO) Carbon dioxide (CO2)

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA
Health 3 Flammability 3 Instability 0

Section 6 - Accidental Release Measures

General: Use proper personal protective equipment as indicated in Section 8.
Environmental Precautions: Do not release to sewer, surface water or ground water.
Methods and Material for Containment and Cleaning Up: Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill: Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas. Be careful that the product is not present at a concentration level above TLV.

Section 7 - Handling and Storage

Precautions: Use proper personal protective equipment as indicated in Section 8.
Handling: Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids.
Storage: Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
Section 8 - Exposure Controls/Personal Protection

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>STEL: 1000 ppm</td>
<td>(Vacated) TWA: 1000 ppm</td>
<td>TWA: 1000 ppm</td>
<td>TWA: 1000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Vacated) TWA: 1900 mg/m³</td>
<td>TWA: 1000 ppm</td>
<td>TWA: 1900 mg/m³</td>
</tr>
</tbody>
</table>

PERSONAL PROTECTIVE EQUIPMENT

Eye and Face Protection: Safety Glasses (with Side Shields)
Skin Protection: Protective Gloves
Body Protection: Lab Coat
Respiratory Protection: Vapor Respiratory if necessary
Ventilation Protection: Use general ventilation under normal use condition

Personal Protection in Case of a Large Spill
Splash goggles. Full suit. Respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Ventilation
Local exhaust: MSHA/NIOSH approved respirator. Appropriate respirator depends upon type and magnitude of exposure.

Section 9 - Stability and Reactivity

Reactive Hazard: None known, based on information available
Stability: Stable under normal conditions.
Incompatible Materials: Strong oxidizing agents, Acids, Acid anhydrides, Acid chlorides, Peroxides, Alkali metals
Hazardous Decomposition Products: Carbon monoxide (CO), Carbon dioxide (CO₂)
Hazardous Polymerization: Hazardous polymerization does not occur.
Hazardous Reactions: None under normal processing.
Section 10 - Toxicological Information

Acute Toxicity
Product Information
Oral LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Vapor LC50 Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.
Component Information
Component LD50 Oral LD50 Dermal LC50 Inhalation
Ethyl alcohol 3450 mg/kg (Mouse) Not listed 20000 ppm/10H (Rat)

Toxicologically Synergistic Products No information available
Delayed and immediate effects as well as chronic effects from short and long-term exposure
Irritation Severe eye irritant
Sensitization No information available
Carcinogenicity
CAS-No 64-17-5 IARC NTP ACGIH OSHA Mexico
Group 1 Known A3 X Not listed
Mutagenic Effects Mutagenic effects have occurred in experimental animals.
Reproductive Effects No information available.
Developmental Effects No information available.
Teratogenicity No information available.
STOT - single exposure Central nervous system (CNS) Optic nerve Respiratory system
Kidney Liver spleen Blood
Aspiration hazard No information available
Symptoms / effects, both acute and delayed Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting
Endocrine Disruptor Information No information available

Section 11 - Ecological Information

Ecotoxicity Effects: Not available
BOD5 and COD: Not available
Bioaccumulation: Not available
Products of Biodegradation: Possibly hazardous short-term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.
Section 12 - Disposal Considerations

General Information
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Waste Disposal Methods
Dispose according to Federal, State, Provincial and Local regulations.

Section 13 - Transport Information

Proper Shipping Name: Not available
Hazard Class: Not available
UN. No.: Not available
Packing Group: Not available
IMDG EMS: Not available

Section 14 - Regulatory Information

Ethyl alcohol is on the following Inventory lists: Australia Complete Regulatory Information contained in following SDS’s X = listed China. Canada The product is classified and labeled according to EC directives or corresponding national laws The product is classified and labeled in accordance with Directive 1999/45/EC Europe TSCA Korea Philippines U.S.A. (TSCA) Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) Korea (ECL) China (IECSC) Japan (ENCS) Philippines (PICCS)

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>IECSC</th>
<th>KECL</th>
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<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>200-578-6</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>

U.S. Federal Regulations

TSCA 12(b) Not applicable

OSHA Occupational Safety and Health Administration
Not applicable

California Proposition 65
Ethyl alcohol is only a considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage This product contains the following proposition 65 chemicals

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
<th>Prop 65 NSRL</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>64-17-5</td>
<td>Development (alcoholic beverages only)</td>
<td>-</td>
<td>Developmental Carcinogen</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Serious risk, Grade 3

Hazard Symbols:

Ethyl alcohol

Risk Phrases: R11 - Highly flammable
R36 - Irritating to eyes

Safety Phrases: S2 - Keep out of reach of children
S46 - If swallowed, seek medical advice immediately and show this container or label

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.