Section 1: Chemical Product and Company Identification

Cat#: 2401, 2405, 2432, 2455, 2455M
Part Name: Ethanol 140 Proof
Supplier: Decon Laboratories Inc.
460 Glennie Circle  King of Prussia, Pa 19406
SDS Telephone # (610) 755-0800

Emergency Telephone Numbers
US Chemtrec: (800) 424-9300
Canada: (703) 527-3887

Identified uses: Laboratory use

Section 2: Hazards Identification:

Hazard Overview
GHS CLASSIFICATIONS

Health:
Flammable Liquids, Category 2

GHS LABEL

Signal Word: DANGER

Hazard and Precautionary Statements

H302: Harmful if swallowed
H320: Causes eye irritation
H225: Highly flammable liquid and vapour
P261: Avoid breathing dust/fumes/gas/mist/vapours/spray
P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking
P102: Keep out of reach of children
P403+P233: Store in a well-ventilated place. Keep container tightly closed

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: DANGER! Flammable liquid and vapor. Harmful or fatal if swallowed. Vapor harmful. Slight skin irritant - defatting action. Eye irritant. CNS depressant
POTENTIAL HEALTH EFFECTS

EYES: Liquid is moderately irritating to the eyes. High vapor concentrations may also be irritating. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness, swelling and eye damage.

SKIN: Liquid is mildly irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

INGESTION: Ingestion of excessive quantities may cause irritation of the digestive tract and signs of nervous system depression (headache, drowsiness, dizziness, loss of coordination and fatigue).

INHALATION: May cause mild irritation to the nose, throat and respiratory tract and may result in central nervous system (CNS) depression.

MEDICAL CONDITIONS AGGRAVATED: Preexisting diseases in or history of ailments involving skin, central nervous system, liver and kidney.

NFPA Rating

Hazard Ratings:
These ratings are Decon Laboratories Inc.’s own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and list 49).

If no data is listed the information is not available.

Health 1 Flammability 3 Reactivity 0

Section 3: Composition/Information on ingredients

Note: Items listed with a CASRN number have no CAS# available.

<table>
<thead>
<tr>
<th>Item#</th>
<th>Name</th>
<th>CAS #</th>
<th>% in Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ethanol</td>
<td>64-17-5</td>
<td>62-70</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention, if irritation occurs or persists.

SKIN: Wash with soap and water for at least 15 minutes. Get medical attention, if irritation develops or persists.

INGESTION: DO NOT INDUCE VOMITING. Do not attempt to give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Seek immediate medical attention.
SIGNs AND SYMPTOMS OF OVEREXPOSURE

ACUTE TOXICITY: Shortness of breathing, confused behavior, redness of skin, swelling of tissues, watery eyes, and nausea

Section 5: Fire-Fighting Measures

EXTINGUISHING MEDIA: Use "alcohol resistant" foam, dry chemical, or CO2. Water may be ineffective, but water applied as a spray can absorb some of the fire's heat and should be used to keep fire-exposed containers cool

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion

EXPLOSION HAZARDS: When heated above the flash point, this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point

FIRE FIGHTING PROCEDURES: WARNING! Flammable Liquid. Clear fire area of unprotected personnel. Do not enter confined fire space without full bunker gear, including a positive pressure NIOSH approved SCBA. Cool fire exposed containers with water

Section 6: Accidental Release measures

GENERAL PROCEDURES: WARNING. Flammable. Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency

Section 7: Handling and Storage

GENERAL PROCEDURES: Keep away from heat, sparks, and flame. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone

COMMENTS: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition; they may explode and cause injury or death
Section 8: Exposure Controls/ Personal Protection

### OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EXPOSURE LIMITS</th>
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<tbody>
<tr>
<td></td>
<td>OSHA PEL ppm mg/m³</td>
<td>ACGIH TLV ppm mg/m³</td>
</tr>
<tr>
<td>Ethanol</td>
<td>TWA 1000 1900</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>400 1,225</td>
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</table>

**ENGINEERING CONTROLS:** Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Use chemical safety goggles and/or full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

**SKIN:** Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**RESPIRATORY:** If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

**PROTECTIVE CLOTHING:** Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required.

**WORK HYGIENIC PRACTICES:** Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

**OTHER USE PRECAUTIONS:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**COMMENTS:** May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventilation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.
Section 9: Physical and Chemical Properties

PHYSICAL STATE: Liquid
ODOR: Alcohol odor
COLOR: Clear, colorless liquid
pH: NA = Not Applicable
PERCENT VOLATILE: 100
FLASHPOINT AND METHOD: (60°F) CC
FLAMMABLE LIMITS: 3.3% to 19%
AUTOIGNITION TEMPERATURE: (685°F)
VAPOR DENSITY: Heavier than air
BOILING POINT: (173°F)
FREEZING POINT: NDA = no data available
SOLUBILITY IN WATER: Soluble
EVAPORATION RATE: Slower than ether
DENSITY: 7.34 at 25°C (77°F)
SPECIFIC GRAVITY: 0.888 at 25°C (77°F)

Section 10: Stability and Reactivity:

REACTIVITY: Yes
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Avoid heat, sparks, flame and contact with strong oxidizing agents. Do not store or handle in aluminum equipment at temperatures above 120 deg. F
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion. There should be no decomposition if stored and applied as directed
INCOMPATIBLE MATERIALS: This product is incompatible with strong acids or bases, oxidizers, alkali metals, and halogens

Section 11: Toxicological Information

TARGET ORGANS: This product contains ethanol. Alcoholic beverage consumption has been associated with brain damage, heart damage, and pancreatitis in humans. The relevance of these findings to ethanol exposure in industrial environments is uncertain
Section 12: Ecological Information

ECOTOXICOLOGICAL INFORMATION: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

Section 13: Disposal Considerations

DISPOSAL METHOD: The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

EMPTY CONTAINER: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

RCRA/EPA WASTE 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. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Section 14: Transportation Information

DOT (DEPARTMENT OF TRANSPORTATION)
PROPER SHIPPING NAME: Ethanol
PRIMARY HAZARD CLASS/DIVISION: 3
UN/NA NUMBER: UN 1170
PACKING GROUP: II
NAERG: 127
LABEL: Flammable liquid Note: sizes 1 Liter or less ship as ORM-D

Section 15: Regulatory Information

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION

![Flammable Liquid Symbol]
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

FIRE: Yes PRESSURE GENERATING: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes.

313 REPORTABLE INGREDIENTS: To the best of our knowledge, this product is not listed as a toxic chemical under Section 313 of SARA Title III.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: Listed

GENERAL COMMENTS: The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Section 16: Other Information

Date of Issue: 4/13/2007
Date of Revision: 12/31/2021R

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End of Safety Data Sheet