Box 1002449 Component SDS

REF 1002449
Onyx® Edit Competency Kit
Edit Competency DNA – E. coli

<table>
<thead>
<tr>
<th>Consumable ID Number</th>
<th>Consumable Ref Number and Relevant Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1002182 Well 1</td>
</tr>
<tr>
<td>11</td>
<td>1002172 Well 1</td>
</tr>
</tbody>
</table>

*Note: Consumable wells are numbered such that Well 1 is the well closest to the Chamfer.
1002182
Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Date of Issue: 03/11/2022
Version: 2.0

SECTION 1: IDENTIFICATION
1.1. Product Identifier
Product Form: Mixture
Product Name: 1002182

1.2. Intended Use of the Product
Use of the Substance/Mixture: No use is specified.

1.3. Name, Address, and Telephone of the Responsible Party
Company
Inscripta, Inc.
5764 Pacific Center Blvd
San Diego, CA 92121
619-708-8130
www.inscripta.com

1.4. Emergency Telephone Number
Emergency Number: 1-800-535-5053

SECTION 2: HAZARDS IDENTIFICATION
2.1. Classification of the Substance or Mixture
Flam. Liq. 2  H225
Eye Irrit. 2A  H319
Carc. 1B  H350
Repr. 2  H361

Full text of hazard classes and H-statements: see section 16

2.2. Label Elements
GHS-US Labeling
Hazard Pictograms (GHS-US):

Signal Word (GHS-US): Danger
Hazard Statements (GHS-US):
H225 - Highly flammable liquid and vapor.
H319 - Causes serious eye irritation.
H350 - May cause cancer.
H361 - Suspected of damaging fertility or the unborn child.

Precautionary Statements (GHS-US):
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof electrical, ventilating, and lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P280 - Wear protective gloves, protective clothing, and eye protection.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards
Exposure may aggravate pre-existing eye, skin, or respiratory conditions.
Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.4. Unknown Acute Toxicity (GHS-US)
No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Synonyms</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>Methylcarbinol / Ethanol / ALCOHOL / Alcohol anhydrous / Alcohol / Grain alcohol / alcohol</td>
<td>(CAS-No.) 64-17-5</td>
<td>60 - 80</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2A, H319</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures
First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact: Immediately drench affected area with water for at least 15 minutes. Immediately remove contaminated clothing. If exposed or concerned: Get medical advice/attention.

First-aid Measures After Eye Contact: Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed
Symptoms/Injuries: May cause cancer. Suspected of damaging fertility or the unborn child. Causes serious eye irritation.

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects. Chronic Symptoms: May cause cancer. Repeated exposure may cause skin dryness or cracking. Suspected of damaging fertility or the unborn child.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media
Suitable Extinguishing Media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Water may be ineffective but water should be used to keep fire-exposed container cool.
Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid.

5.2. Special Hazards Arising From the Substance or Mixture
Fire Hazard: Highly flammable liquid and vapor. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours.
Explosion Hazard: May form flammable or explosive vapor-air mixture.
Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.

5.3. Advice for Firefighters
Precautionary Measures Fire: Exercise caution when fighting any chemical fire.
Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges.

6.1.1. For Non-Emergency Personnel
Protective Equipment: Use appropriate personal protective equipment (PPE).
Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.1.2. For Emergency Personnel
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area. Eliminate ignition sources.

6.2. Environmental Precautions
Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and Materials for Containment and Cleaning Up
For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.
Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Transfer spilled material to a suitable container for disposal. Use only non-sparking tools. Contact competent authorities after a spill.

6.4. Reference to Other Sections
See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling
Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable.
Precautions for Safe Handling: Do not handle until all safety precautions have been read and understood. Do not breathe vapors, mist, spray. Take precautionary measures against static discharge. Use only non-sparking tools. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Obtain special instructions before use. Do not get in eyes, on skin, or on clothing.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities
Storage Conditions: Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.

7.3. Specific End Use(s)
No use is specified.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters
For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH STEL (ppm)</th>
<th>ACGIH chemical category</th>
<th>NIOSH REL (TWA) (mg/m³)</th>
<th>NIOSH REL (TWA) [ppm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol (64-17-5)</td>
<td>1000 ppm</td>
<td>Confirmed Animal Carcinogen with Unknown Relevance to Humans</td>
<td>1900 mg/m³</td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

03/11/2022 EN (English US)
8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment.


Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Vapor Density at 20°C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition Coefficient: N-Octanol/Water</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other Information: No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.

10.2. Chemical Stability: Highly flammable liquid and vapor. May form flammable or explosive vapor-air mixture.

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.6. Hazardous Decomposition Products: Not expected to decompose under ambient conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity (Oral): Not classified
Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified

<table>
<thead>
<tr>
<th>Substance</th>
<th>LD50 Oral Rat</th>
<th>LD50 Dermal Rat</th>
<th>LC50 Inhalation Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol (64-17-5)</td>
<td>10470 mg/kg</td>
<td>20 ml/kg</td>
<td>124.7 mg/l/4h</td>
</tr>
<tr>
<td>Chloramphenicol (56-75-7)</td>
<td></td>
<td></td>
<td>2500 mg/kg</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: May cause cancer.

Ethyl alcohol in alcoholic beverages (64-17-5)
IARC group: 1
OSHA Hazard Communication Carcinogen List: In OSHA Hazard Communication Carcinogen list.

Chloramphenicol (56-75-7)
IARC group: 2A
National Toxicology Program (NTP) Status: Reasonably anticipated to be Human Carcinogen, Substances delisted from report on Carcinogens.

OSHA Hazard Communication Carcinogen List: In OSHA Hazard Communication Carcinogen list.

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.
Specific Target Organ Toxicity (Single Exposure): Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.
Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.
Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: May cause cancer. Repeated exposure may cause skin dryness or cracking. Suspected of damaging fertility or the unborn child.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Not classified.

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC50 Fish 1</th>
<th>LC50 Fish 1</th>
<th>LC50 Daphnia 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol (64-17-5)</td>
<td>11200 mg/l</td>
<td>9268 – 14221 mg/l (Exposure time: 48 h – Species: Daphnia magna)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 100 mg/l (Exposure time: 96 h – Species: Pimephales promelas [static])</td>
<td>1000 mg/l</td>
</tr>
<tr>
<td>ErC50 (Algae)</td>
<td></td>
<td></td>
<td>9.6 mg/l</td>
</tr>
</tbody>
</table>

12.2. Persistence and Degradability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Persistence and Degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol (64-17-5)</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative Potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>Bioaccumulative Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol (64-17-5)</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Partition coefficient n-octanol/water (Log Pow)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol (64-17-5)</td>
<td>-0.32</td>
</tr>
</tbody>
</table>

12.4. Mobility in Soil
No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.
SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods
Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.
Additional Information: Handle empty containers with care because residual vapors are flammable.
Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT
Proper Shipping Name: ETHANOL SOLUTIONS
Hazard Class: 3
Identification Number: UN1170
Label Codes: 3
Packing Group: II
ERG Number: 127

14.2. In Accordance with IMDG
Proper Shipping Name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Hazard Class: 3
Identification Number: UN1170
Packing Group: II
Label Codes: 3
EmS-No. (Fire): F-E
EmS-No. (Spillage): S-D

14.3. In Accordance with IATA
Proper Shipping Name: ETHANOL SOLUTION
Packing Group: II
Identification Number: UN1170
Hazard Class: 3
Label Codes: 3
ERG Code (IATA): 3L

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

1002182
SARA Section 311/312 Hazard Classes
Health hazard – Carcinogenicity
Physical hazard – Flammable (gases, aerosols, liquids, or solids)
Health hazard – Reproductive toxicity
Health hazard – Serious eye damage or eye irritation

Ethyl alcohol (64-17-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Chloramphenicol (56-75-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State Regulations

Ethyl alcohol (64-17-5)
U.S. – Massachusetts - Right To Know List
U.S. – New Jersey - Right to Know Hazardous Substance List
U.S. – Pennsylvania - RTK (Right to Know) List

Chloramphenicol (56-75-7)
U.S. – Massachusetts - Right To Know List
U.S. – Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
U.S. – Pennsylvania - RTK (Right to Know) List

California Proposition 65
⚠️ WARNING: This product can expose you to Ethyl alcohol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

<table>
<thead>
<tr>
<th>Chemical Name (CAS No.)</th>
<th>Carcinogenicity</th>
<th>Developmental Toxicity</th>
<th>Female Reproductive Toxicity</th>
<th>Male Reproductive Toxicity</th>
</tr>
</thead>
</table>

03/11/2022
EN (English US)
SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision: 02/08/2021
Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

GHS Full Text Phrases:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carc. 1B</td>
<td>Carcinogenicity Category 1B</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage/eye irritation Category 2A</td>
</tr>
<tr>
<td>Flam. Liq. 2</td>
<td>Flammable liquids Category 2</td>
</tr>
<tr>
<td>Repr. 2</td>
<td>Reproductive toxicity Category 2</td>
</tr>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapor</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer</td>
</tr>
<tr>
<td>H361</td>
<td>Suspected of damaging fertility or the unborn child</td>
</tr>
</tbody>
</table>

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)
SECTION 1: IDENTIFICATION

1.1. Product Identifier
   Product Form: Mixture
   Product Name: 1002172

1.2. Intended Use of the Product
   Use of the Substance/Mixture: No use is specified.

1.3. Name, Address, and Telephone of the Responsible Party
   Company: Inscripta, Inc.
   5764 Pacific Center Blvd
   San Diego, CA 92121
   619-708-8130
   www.inscripta.com

1.4. Emergency Telephone Number
   Emergency Number: 1-800-535-5053

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture
   Not classified

2.2. Label Elements
   GHS-US Labeling:
   No labeling applicable according to 29 CFR 1910.1200.

2.3. Other Hazards
   Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)
   No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance
   Not applicable

3.2. Mixture
   | Name                  | Synonyms                                | Product Identifier (CAS-No.) | %  | GHS US classification |
   | 1,2,3-Propanetriol   | Glycerin / Glycerine / Glycerol /       | 56–81–5                 | 7 – 13 | Not classified        |
   |                      | 1,2,3-Trihydroxypropane /              |                         |     |                         |
   |                      | GLYCERIN / Propane-1,2,3-triol /       |                         |     |                         |
   |                      | glycerin                               |                         |     |                         |

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures
   First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
   First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.
   First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.
   First-aid Measures After Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.
   First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed
   Symptoms/Injuries: Not expected to present a significant hazard under anticipated conditions of normal use.
   Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.
   Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.
   Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.
   Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.
   Chronic Symptoms: None known.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
   If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.
SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media
   Suitable Extinguishing Media: Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical.

   Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture
   Fire Hazard: Not considered flammable but may burn at high temperatures.
   Explosion Hazard: Product is not explosive.
   Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters
   Precautionary Measures Fire: Exercise caution when fighting any chemical fire.
   Firefighting Instructions: Use water spray or fog for cooling exposed containers.
   Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
   General Measures: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

   6.1.1. For Non-Emergency Personnel
      Protective Equipment: Use appropriate personal protective equipment (PPE).

   6.1.2. For Emergency Personnel
      Protective Equipment: Equip cleanup crew with proper protection.
      Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

   6.2. Environmental Precautions
      Prevent entry to sewers and public waters.

   6.3. Methods and Materials for Containment and Cleaning Up
      For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
      Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

   6.4. Reference to Other Sections
      See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling
   Precautions for Safe Handling: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
   Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities
   Technical Measures: Comply with applicable regulations.
   Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.
   Incompatible Materials: Strong oxidizers.

7.3. Specific End Use(s)
   No use is specified.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters
   For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

<table>
<thead>
<tr>
<th>1,2,3-Propanetriol (56-81-5)</th>
<th>USA OSHA</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
<th>15 mg/m³ (mist, total particulate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 mg/m³ (mist, respirable fraction)</td>
</tr>
</tbody>
</table>

8.2. Exposure Controls
   Appropriate Engineering Controls: Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.
**Personal Protective Equipment**: Gloves, protective clothing, protective goggles.

**Materials for Protective Clothing**: Chemically resistant materials and fabrics.

**Hand Protection**: Wear protective gloves.

**Eye and Face Protection**: Chemical safety goggles.

**Skin and Body Protection**: Wear suitable protective clothing.

**Respiratory Protection**: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Other Information**: When using, do not eat, drink or smoke.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on Basic Physical and Chemical Properties

- **Physical State**: Liquid
- **Appearance**: No data available
- **Odor**: No data available
- **Odor Threshold**: No data available
- **pH**: No data available
- **Evaporation Rate**: No data available
- **Melting Point**: No data available
- **Freezing Point**: No data available
- **Boiling Point**: No data available
- **Flash Point**: No data available
- **Auto-ignition Temperature**: No data available
- **Decomposition Temperature**: No data available
- **Flammability (solid, gas)**: Not applicable
- **Vapor Pressure**: No data available
- **Relative Vapor Density at 20°C**: No data available
- **Relative Density**: No data available
- **Solubility**: No data available
- **Partition Coefficient: N-Octanol/Water**: No data available
- **Viscosity**: No data available

#### 9.2. Other Information

No additional information available

### SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity**: Hazardous reactions will not occur under normal conditions.

10.2. **Chemical Stability**: Stable under recommended handling and storage conditions (see section 7).

10.3. **Possibility of Hazardous Reactions**: Hazardous polymerization will not occur.

10.4. **Conditions to Avoid**: Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. **Incompatible Materials**: Strong oxidizers.

10.6. **Hazardous Decomposition Products**: Not expected to decompose under ambient conditions. Thermal decomposition may release acrolein.

### SECTION 11: TOXICOLOGICAL INFORMATION

11.1. **Information on Toxicological Effects**

- **Acute Toxicity (Oral)**: Not classified
- **Acute Toxicity (Dermal)**: Not classified
- **Acute Toxicity (Inhalation)**: Not classified

1,2,3- Propanetriol (56-81-5)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral Rat</td>
<td>12600 mg/kg</td>
</tr>
<tr>
<td>LD50 Dermal Rabbit</td>
<td>&gt; 10 g/kg</td>
</tr>
<tr>
<td>LC50 Inhalation Rat</td>
<td>&gt; 570 mg/m³  (Exposure time: 1 h)</td>
</tr>
</tbody>
</table>

**Skin Corrosion/Irritation**: Not classified

**Serious Eye Damage/Irritation**: Not classified

**Respiratory or Skin Sensitization**: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.
Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.
Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.
Chronic Symptoms: None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecology - General: Not classified.

| 1,2,3-Propanetriol (56-81-5) | LC50 Fish 1 | 54000 (51000 – 57000) mg/l (Exposure time: 96 h – Species: Oncorhynchus mykiss [static]) |

12.2. Persistence and Degradability

| Persistence and Degradability | Not established. |

12.3. Bioaccumulative Potential

| 1,2,3-Propanetriol (56-81-5) | BCF Fish 1 | (no bioaccumulation) |
| 1,2,3-Propanetriol (56-81-5) | Partition coefficient n-octanol/water (Log Pow) | ~1.76 |

12.4. Mobility in Soil No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods
Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.
Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT Not regulated for transport
14.2. In Accordance with IMDG Not regulated for transport
14.3. In Accordance with IATA Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

| 1,2,3-Propanetriol (56-81-5) | Listed on the United States TSCA (Toxic Substances Control Act) inventory |

15.2. US State Regulations

| 1,2,3-Propanetriol (56-81-5) | U.S. - Massachusetts - Right To Know List |
| 1,2,3-Propanetriol (56-81-5) | U.S. - New Jersey – Right to Know Hazardous Substance List |
| 1,2,3-Propanetriol (56-81-5) | U.S. - Pennsylvania - RTK (Right to Know) List |

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision: 02/08/2021
Other Information

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)