1. Identification

Product identifier

Product Name World Health Organization Hand Sanitizer Formula (Ethanol-based)

Other means of identification

UN/ID no UN1170

Other information Per the Food and Drug Administration (FDA) “Policy for Temporary Compounding of Certain Alcohol-Based Hand Sanitizer Products During the Public Health Emergency Immediately in Effect Guidance for Industry”. https://www.fda.gov/media/136118/download.

The hand sanitizer is compounded using only United States Pharmacopoeia (USP) grade ingredients in the preparation of the product (percentage in final product formulation) consistent with World Health Organization (WHO) recommendations.

The compounder does not add other active or inactive ingredients. Different or additional ingredients may impact the quality and potency of the product.

This is a personal care product. This SDS contains useful information for the safe handling and proper use of the product for industrial workplace conditions as well as unintended exposures as might occur with large spills. Consumers: Refer to the package insert or product label for appropriate consumer-specific information about this product when used according to manufacturer's directions.

Recommended use of the chemical and restrictions on use

Recommended use Hand sanitizer

Restrictions on use No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Global Companies LLC
81200 Kallunki Rd
Clatskanie, OR 97016

Emergency telephone number

Emergency Telephone 800-424-9300 CHEMTREC 800-424-9300
2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Serious eye damage/eye irritation</th>
<th>Category 2A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Hazard statements

Highly flammable liquid and vapor.
Causes serious eye irritation.

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Wear protective gloves/eye protection/face protection

Precautionary Statements - Response

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
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

May be harmful if inhaled. Causes mild skin irritation. May cause drowsiness or dizziness.

3. Composition/information on ingredients

Substance

Not applicable.
4. First-aid measures

**Description of first aid measures**

**General advice**
Show this safety data sheet to the doctor in attendance.

**Inhalation**
Remove to fresh air.

**Eye contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Skin contact**
None under normal use conditions. If skin irritation occurs: Get medical advice/attention.

**Ingestion**
Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

**Self-protection of the first aider**
Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**
May cause redness and tearing of the eyes. Burning sensation. Prolonged contact may cause redness and irritation.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians**
Treat symptomatically.

5. Fire-fighting measures

**Suitable Extinguishing Media**
Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

**Unsuitable extinguishing media**
None known based on information supplied.

**Specific hazards arising from the chemical**
Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**Explosion data**
- **Sensitivity to mechanical impact**: None.
- **Sensitivity to static discharge**: Yes.

**Special protective equipment for fire-fighters**
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other information
Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment
Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up
Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling
Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>STEL: 1000 ppm</td>
<td>TWA: 1000 ppm</td>
<td>IDLH: 3300 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 1900 mg/m³</td>
<td>TWA: 1000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 1000 ppm</td>
<td>TWA: 1900 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 1900 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>
Glycerol
56-81-5
- TWA: 15 mg/m³ mist, total particulate
TWA: 5 mg/m³ mist, respirable fraction
(vacated) TWA: 10 mg/m³ mist, total particulate
(vacated) TWA: 5 mg/m³ mist, respirable fraction
-
Hydrogen peroxide
7722-84-1
TWA: 1 ppm TWA: 1 ppm
TWA: 1.4 mg/m³ (vacated) TWA: 1 ppm
TWA: 1.4 mg/m³ (vacated) TWA: 1.4 mg/m³
IDLH: 75 ppm TWA: 1 ppm
TWA: 1.4 mg/m³

Biological occupational exposure limits
This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls
Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection
Tight sealing safety goggles.

Hand protection
Wear suitable gloves.

Skin and body protection
Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations
Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

9. Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>78.3 °C / 172.9 °F</td>
<td>None known</td>
</tr>
<tr>
<td>Flash point</td>
<td>17.5 °C / 63.5 °F</td>
<td>None known</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td>None known</td>
</tr>
</tbody>
</table>
Flammability (solid, gas)  No data available  None known
Flammability Limit in Air
  Upper flammability or explosive limits  No data available
  Lower flammability or explosive limits  No data available
Vapor pressure  No data available  None known
Vapor density  No data available  None known
Relative density  No data available  None known
Water solubility  No data available  None known
Solubility(ies)  No data available  None known
Partition coefficient  No data available  None known
Autoignition temperature  No data available  None known
Decomposition temperature  No data available  None known
Kinematic viscosity  No data available  None known
Dynamic viscosity  No data available  None known

Other information
Explosive properties  No information available.
Oxidizing properties  No information available.
Softening point  No information available
Molecular weight  No information available
VOC Content (%)  No information available
Liquid Density  No information available
Bulk density  No information available

10. Stability and reactivity
Reactivity  None under normal use conditions.
Chemical stability  Stable under normal conditions.
Possibility of hazardous reactions  None under normal processing.
Conditions to avoid  Heat, flames and sparks.
Incompatible materials  None known based on information supplied.
Hazardous decomposition products  None known based on information supplied.

11. Toxicological information
Information on likely routes of exposure

Product Information

Inhalation  Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May be harmful if inhaled. May cause drowsiness or dizziness.

Eye contact  Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact  Specific test data for the substance or mixture is not available. Causes mild skin irritation. Prolonged contact may cause redness and irritation.

Ingestion  Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Symptoms related to the physical, chemical and toxicological characteristics

Symptoms
May cause redness and tearing of the eyes. Prolonged contact may cause redness and irritation.

Acute toxicity

Numerical measures of toxicity

<table>
<thead>
<tr>
<th>Component Information</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>≥ 7060 mg/kg (Rat)</td>
<td>-</td>
<td>= 124.7 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>Water 7732-18-5</td>
<td>&gt; 90 mL/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol 56-81-5</td>
<td>≥ 12600 mg/kg (Rat)</td>
<td>&gt; 10 g/kg (Rabbit)</td>
<td>&gt; 570 mg/m³ (Rat) 1 h</td>
</tr>
<tr>
<td>Hydrogen peroxide 7722-84-1</td>
<td>≥ 1518 mg/kg (Rat)</td>
<td>≥ 9200 mg/kg (Rabbit)</td>
<td>= 2000 mg/m³ (Rat) 4 h</td>
</tr>
</tbody>
</table>

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation
Classification based on data available for ingredients. May cause skin irritation.

Serious eye damage/eye irritation
Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage. Based on available data, the classification criteria are not met.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>A3</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
<tr>
<td>Hydrogen peroxide 7722-84-1</td>
<td>A3</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Legend
ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 3 - Not Classifiable as to Carcinogenicity in Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity
No information available.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Target organ effects
Eyes, Skin, Respiratory system.

Aspiration hazard
No information available.
Other adverse effects
No information available.

Interactive effects
No information available.

12. Ecological information

Ecotoxicity
The environmental impact of this product has not been fully investigated.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>-</td>
<td>LC50: 12.0 - 16.0mL/L (96h, Oncorhynchus mykiss)</td>
<td>-</td>
<td>LC50: 9268 - 14221mg/L (48h, Daphnia magna) EC50: =2mg/L (48h, Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50: &gt;100mg/L (96h, Pimephales promelas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50: 13400 - 15100mg/L (96h, Pimephales promelas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol 56-81-5</td>
<td>-</td>
<td>LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Hydrogen peroxide 7722-84-1</td>
<td>-</td>
<td>LC50: 18 - 56mg/L (96h, Lepomis macrochirus)</td>
<td></td>
<td>EC50: 18 - 32mg/L (48h, Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50: =16.4mg/L (96h, Pimephales promelas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50: 10.0 - 32.0mg/L (96h, Oncorhynchus mykiss)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available.

Bioaccumulation
There is no data for this product.

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>-0.32</td>
</tr>
<tr>
<td>Glycerol 56-81-5</td>
<td>-1.76</td>
</tr>
</tbody>
</table>

Other adverse effects
No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products
Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging
Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.
California Hazardous Waste Status  This product contains one or more substances that are listed with the State of California as a hazardous waste.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol  64-17-5</td>
<td>Toxic Ignitable</td>
</tr>
<tr>
<td>Hydrogen peroxide 7722-84-1</td>
<td>Toxic Corrosive Ignitable Reactive</td>
</tr>
</tbody>
</table>

14. Transport information

Note:  This is a consumer product and as such may usually be shipped as ORM-D (other regulated materials for domestic transport only) Consumer Commodity for transport within the United States. While this product is a hazardous material, it may be shipped in a limited quantity that presents a limited hazard during transportation, due to its form, quantity, and packaging. The information listed below is for shipping bulk material.


DOT

<table>
<thead>
<tr>
<th>UN/ID no</th>
<th>UN1170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>ETHANOL SOLUTIONS</td>
</tr>
<tr>
<td>Hazard class</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>Special Provisions</td>
<td>24, IB2, T4, TP1</td>
</tr>
<tr>
<td>DOT Marine Pollutant</td>
<td>NP</td>
</tr>
<tr>
<td>Description</td>
<td>UN1170, ETHANOL SOLUTIONS, 3, II</td>
</tr>
<tr>
<td>Emergency Response Guide Number</td>
<td>127</td>
</tr>
</tbody>
</table>

IATA

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN1170</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>Ethanol solution</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>ERG Code</td>
<td>3L</td>
</tr>
<tr>
<td>Special Provisions</td>
<td>A180, A3, A58</td>
</tr>
<tr>
<td>Description</td>
<td>UN1170, Ethanol solution, 3, II</td>
</tr>
</tbody>
</table>

IMDG

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN1170</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>ETHANOL SOLUTION</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>EmS-No</td>
<td>F-E, S-D</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>NP</td>
</tr>
<tr>
<td>Special Provisions</td>
<td>144</td>
</tr>
<tr>
<td>Description</td>
<td>UN1170, ETHANOL SOLUTION, 3, II, (17.5°C C.C.)</td>
</tr>
</tbody>
</table>
15. Regulatory information

International Inventories

TSCA

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>US TSCA Inventory listing</th>
<th>US TSCA inactive/active designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>Present</td>
<td>Active</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Present</td>
<td>Active</td>
</tr>
<tr>
<td>Glycerol</td>
<td>56-81-5</td>
<td>Present</td>
<td>Active</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>7722-84-1</td>
<td>Present</td>
<td>Active</td>
</tr>
</tbody>
</table>

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Hazardous Substances RQs</th>
<th>Extremely Hazardous Substances RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>-</td>
<td>1000 lb</td>
</tr>
<tr>
<td>7722-84-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

US State Regulations

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>Chemical name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol - 64-17-5</td>
<td>Carcinogen</td>
</tr>
<tr>
<td></td>
<td>Developmental</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol 64-17-5</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Glycerol 56-81-5</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Hydrogen peroxide 7722-84-1</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
## 16. Other information

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

**Key or legend to abbreviations and acronyms used in the safety data sheet**

- **Legend**
  - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
  - TWA: TWA (time-weighted average)
  - STEL: STEL (Short Term Exposure Limit)
  - Ceiling: Maximum limit value
  - *: Skin designation

**Key literature references and sources for data used to compile the SDS**

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGL(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- Japan GHS Classification
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)
- Organization for Economic Co-operation and Development High Production Volume Chemicals Program
- Organization for Economic Co-operation and Development Screening Information Data Set
- World Health Organization

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**End of Safety Data Sheet**