SAFETY DATA SHEET
GOJO® E2 Foam Sanitizing Soap

Version 1.1 Revision Date: 02/10/2015 MSDS Number: 33047-00002 Date of last issue: 12/02/2014 Date of first issue: 12/02/2014

SECTION 1. IDENTIFICATION

Product name: GOJO® E2 Foam Sanitizing Soap

Manufacturer or supplier’s details
Company name of supplier: GOJO Industries, Inc.
Address: One GOJO Plaza, Suite 500
Akron OH 44311

Telephone: 1 (330) 255-6000
Emergency telephone: 1-800-424-9300 CHEMTREC

Recommended use of the chemical and restrictions on use
Recommended use: Antibacterial Soap
Restrictions on use: This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids: Category 3
Serious eye damage: Category 1

GHS Label element
Hazard pictograms:

Signal Word: Danger
Hazard Statements: H226 Flammable liquid and vapor.
H318 Causes serious eye damage.
Precautionary Statements:

**Prevention:**
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 Keep container tightly closed.
- P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P280 Wear protective gloves/ eye protection/ face protection.

**Response:**
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

**Storage:**
- P403 + P235 Store in a well-ventilated place. Keep cool.

**Disposal:**
- P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards:
Vapors may form explosive mixture with air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance / Mixture:** Mixture

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Dodecanoic acid</td>
<td>143-07-7</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Ethanolamine</td>
<td>141-43-5</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts</td>
<td>68650-39-5</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>

### SECTION 4. FIRST AID MEASURES

**General advice:**
In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

**If inhaled:**
- If inhaled, remove to fresh air.
- Get medical attention if symptoms occur.

**In case of skin contact:**
- Wash with water and soap as a precaution.
- Get medical attention if symptoms occur.
In case of eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention immediately.

If swallowed: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed: Causes serious eye damage.

Protection of first-aiders: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Notes to physician: Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO2)

Unsuitable extinguishing media: High volume water jet

Specific hazards during fire fighting: Do not use a solid water stream as it may scatter and spread fire. Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.

Hazardous combustion products: Carbon oxides
Nitrogen oxides (NOx)
Metal oxides

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Remove all sources of ignition.
protective equipment and emergency procedures

Use personal protective equipment.
Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions

: Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

: Non-sparking tools should be used.
Soak up with inert absorbent material.
Suppress (knock down) gases/vapors/mists with a water spray jet.
For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures

: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation

: Use with local exhaust ventilation.
Use only in an area equipped with explosion proof exhaust ventilation.

Advice on safe handling

: Avoid inhalation of vapor or mist.
Do not swallow.
Do not get in eyes.
Avoid prolonged or repeated contact with skin.
Handle in accordance with good industrial hygiene and safety practice.
Non-sparking tools should be used.
Keep container tightly closed.
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage

: Keep in properly labeled containers.
Keep tightly closed.
Keep in a cool, well-ventilated place.
Materials to avoid:

Do not store with the following product types:
- Strong oxidizing agents
- Organic peroxides
- Flammable solids
- Pyrophoric liquids
- Pyrophoric solids
- Self-heating substances and mixtures
- Substances and mixtures which in contact with water emit flammable gases
- Explosives
- Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>TWA</td>
<td>1,000 ppm 1,900 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>1,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>US WEEL</td>
</tr>
<tr>
<td>Ethanolamine</td>
<td>141-43-5</td>
<td>TWA</td>
<td>3 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>6 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>3 ppm 8 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>6 ppm 15 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>3 ppm 6 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
</tbody>
</table>

Hazardous components without workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dodecanoic acid</td>
<td>143-07-7</td>
</tr>
<tr>
<td>Imidazolium compounds, 1-[[2-</td>
<td>68650-39-5</td>
</tr>
<tr>
<td>(carboxymethoxy)ethyl]-1- ([carboxymethyl]-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts</td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures:
- Minimize workplace exposure concentrations.
- Use only in an area equipped with explosion proof exhaust ventilation.
- Use with local exhaust ventilation.

Personal protective equipment
Respiratory protection: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection Material: Impervious gloves

Material: Flame retardant gloves

Remarks: Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection: Wear the following personal protective equipment:
Chemical resistant goggles must be worn.
If splashes are likely to occur, wear:
Face-shield

Skin and body protection: Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Wear the following personal protective equipment:
Flame retardant antistatic protective clothing.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures: Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | liquid |
| Color | clear, light yellow, yellow |
| Odor | slight alcoholic |
| Odor Threshold | No data available |
pH : 7.8 - 9.8
Melting point/freezing point : No data available
Initial boiling point and boiling range : 77 °C
Flash point : 40 °C
Evaporation rate : No data available
Flammability (solid, gas) : Not applicable
Upper explosion limit : No data available
Lower explosion limit : No data available
Vapor pressure : No data available
Relative vapor density : No data available
Density : 1.0 g/cm³

Solubility(ies)
  Water solubility : soluble
  Partition coefficient: n-octanol/water : Not applicable
Autoignition temperature : No data available
Decomposition temperature : The substance or mixture is not classified self-reactive.
Viscosity
  Viscosity, kinematic : 10 - 20 mm²/s (20 °C)
Explosive properties : Not explosive
Oxidizing properties : The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Flammable liquid and vapor. Vapors may form explosive mixture with air. Can react with strong oxidizing agents.
Conditions to avoid : Heat, flames and sparks.
Incompatible materials: Oxidizing agents
Hazardous decomposition products: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity
Not classified based on available information.

Product:

Acute oral toxicity: Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity:
- Acute toxicity estimate: > 40 mg/l
  Exposure time: 4 h
  Test atmosphere: vapor
  Method: Calculation method

Acute dermal toxicity: Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Ingredients:

Ethanol:

Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity:
- LC50 (Rat): 124.7 mg/l
  Exposure time: 4 h
  Test atmosphere: vapor

Propylene glycol:

Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity:
- LC50 (Rabbit): > 159 mg/l, > 51091 ppm
  Exposure time: 4 h
  Test atmosphere: dust/mist
  Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Dodecanoic acid:

Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity:
- LC50 (Rabbit): > 0.162 mg/l
  Exposure time: 4 h
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Test atmosphere: vapor
Remarks: Based on data from similar materials

Acute dermal toxicity:
LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Ethanolamine:
Acute oral toxicity:
LD50 (Rat): 1,515 mg/kg

Acute inhalation toxicity:
Acute toxicity estimate: 11 mg/l
Test atmosphere: vapor
Method: Expert judgment
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute dermal toxicity:
LD50 (Rabbit): 1,025 mg/kg

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:
Acute oral toxicity:
LD50 (Rat, male): > 5,000 mg/kg
Remarks: Based on data from similar materials

Acute dermal toxicity:
LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 402
Remarks: Based on data from similar materials

Skin corrosion/irritation:
Not classified based on available information.

Product:
Result: No skin irritation

Ingredients:
Ethanol:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Propylene glycol:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Dodecanoic acid:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Ethanolamine:
Species: Rabbit
Result: Corrosive after 3 minutes to 1 hour of exposure
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:
Species: Rabbit
Result: No skin irritation
Remarks: Based on data from similar materials

Serious eye damage/eye irritation
Causes serious eye damage.

Ingredients:
Ethanol:
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Method: OECD Test Guideline 405

Propylene glycol:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

Dodecanoic acid:
Species: Rabbit
Result: Irreversible effects on the eye
Method: OECD Test Guideline 405

Ethanolamine:
Species: Rabbit
Result: Irreversible effects on the eye

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:
Species: Rabbit
Result: Irreversible effects on the eye
Method: OECD Test Guideline 405
Remarks: Based on data from similar materials

Respiratory or skin sensitization
Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.

Product:
Assessment: Does not cause skin sensitization.

Ingredients:
Ethanol:
Test Type: Local lymph node assay (LLNA)
Routes of exposure: Skin contact
Species: Mouse
Result: negative

Propylene glycol:
Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative

**Dodecanoic acid:**
Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative

**Ethanolamine:**
Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative

**Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:**
Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative
Remarks: Based on data from similar materials

**Germ cell mutagenicity**
Not classified based on available information.

**Ingredients:**

**Ethanol:**
Genotoxicity in vitro: Test Type: In vitro mammalian cell gene mutation test
                      Result: negative

Genotoxicity in vivo: Test Type: Rodent dominant lethal test (germ cell) (in vivo)
                      Species: Mouse
                      Application Route: Ingestion
                      Result: negative

**Propylene glycol:**
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
                      Result: negative

Genotoxicity in vivo: Test Type: In vivo micronucleus test
                      Species: Mouse
                      Application Route: Intraperitoneal injection
                      Result: negative

**Dodecanoic acid:**
Genotoxicity in vitro: Test Type: In vitro mammalian cell gene mutation test
                      Method: OECD Test Guideline 476
                      Result: negative
                      Remarks: Based on data from similar materials

**Ethanolamine:**
Genotoxicity in vitro: Test Type: In vitro mammalian cell gene mutation test
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Genotoxicity in vivo
Method: OECD Test Guideline 476  
Result: negative  
Species: Mouse  
Application Route: Ingestion  
Method: OECD Test Guideline 474  
Result: negative

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:
Genotoxicity in vitro
Method: OECD Test Guideline 473  
Result: negative  
Remarks: Based on data from similar materials

Carcinogenicity
Not classified based on available information.

Ingredients:
Propylene glycol:
Species: Rat  
Application Route: Ingestion  
Exposure time: 2 Years  
Result: negative

IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcino-
gen by OSHA.

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Not classified based on available information.

Ingredients:
Ethanol:
Effects on fertility
Test Type: Two-generation reproduction toxicity study
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Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

**Propylene glycol:**

Effects on fertility:
Species: Mouse
Application Route: Ingestion
Result: negative

Effects on fetal development:
Species: Mouse
Application Route: Ingestion
Result: negative

**Dodecanoic acid:**

Effects on fertility:
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development:
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

**Ethanolamine:**

Effects on fertility:
Species: Rat
Application Route: Ingestion
Method: Two-generation reproduction toxicity study
Result: negative

Effects on fetal development:
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

**STOT-single exposure**
Not classified based on available information.

**Ingredients:**
Ethanolamine:
Assessment: May cause respiratory irritation.

**STOT-repeated exposure**
Not classified based on available information.
Ingredients:

Ethanolamine:
Routes of exposure: inhalation (dust/mist/fume)
Assessment: No significant health effects observed in animals at concentrations of 0.2 mg/l/6h/d or less.

Repeated dose toxicity

Ingredients:

Ethanol:
Species: Rat
NOAEL: 2,400 mg/kg
Application Route: Ingestion
Exposure time: 2 y

Propylene glycol:
Species: Rat
NOAEL: 1,700 mg/kg
Application Route: Ingestion
Exposure time: 2 y

Dodecanoic acid:
Species: Rat
NOAEL: 10,000 mg/kg
Application Route: Ingestion
Exposure time: 18 w

Ethanolamine:
Species: Rat
NOAEL: 150 mg/m3
Application Route: inhalation (dust/mist/fume)
Exposure time: 28 d

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:
Species: Rat, female
NOAEL: 250 mg/kg
LOAEL: 500 mg/kg
Application Route: Ingestion
Exposure time: 28 d
Remarks: Based on data from similar materials

Aspiration toxicity
Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

Ethanol:
Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h
### Toxicity to daphnia and other aquatic invertebrates

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC50 (Daphnia magna (Water flea))</th>
<th>Exposure time</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>&gt; 1,000 mg/l</td>
<td>48 h</td>
<td>OECD Test Guideline 201</td>
</tr>
<tr>
<td>Dodecanoic acid</td>
<td>3.6 mg/l</td>
<td>48 h</td>
<td>OECD Test Guideline 202</td>
</tr>
</tbody>
</table>

### Toxicity to algae

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC50 (Chlorella vulgaris (Fresh water algae))</th>
<th>Exposure time</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>275 mg/l</td>
<td>72 h</td>
<td>OECD Test Guideline 201</td>
</tr>
<tr>
<td>Dodecanoic acid</td>
<td>&gt; 7.6 mg/l</td>
<td>72 h</td>
<td>OECD Test Guideline 201</td>
</tr>
</tbody>
</table>

### Toxicity to bacteria

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC50 (Photobacterium phosphoreum)</th>
<th>Exposure time</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>32.1 mg/l</td>
<td>0.25 h</td>
<td>OECD Test Guideline 201</td>
</tr>
<tr>
<td>Dodecanoic acid</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

<table>
<thead>
<tr>
<th>Substance</th>
<th>NOEC (Daphnia magna (Water flea))</th>
<th>Exposure time</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>9.6 mg/l</td>
<td>9 d</td>
<td>OECD Test Guideline 201</td>
</tr>
<tr>
<td>Dodecanoic acid</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Toxicity to algae (Chronic toxicity)

<table>
<thead>
<tr>
<th>Substance</th>
<th>NOEC (Ceriodaphnia dubia (water flea))</th>
<th>Exposure time</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>&gt; 18,340 mg/l</td>
<td>48 h</td>
<td>OECD Test Guideline 201</td>
</tr>
<tr>
<td>Dodecanoic acid</td>
<td>&gt; 19,000 mg/l</td>
<td>48 h</td>
<td>OECD Test Guideline 201</td>
</tr>
</tbody>
</table>

### Toxicity to fish (Chronic toxicity)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Chronic Toxicity Value</th>
<th>Exposure time</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>2,500 mg/l</td>
<td>30 d</td>
<td>OECD Test Guideline 201</td>
</tr>
<tr>
<td>Dodecanoic acid</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Remarks

- No toxicity at the limit of solubility.
- NOEC (Selenastrum capricornutum (green algae)): > 7.6 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: No toxicity at the limit of solubility.
Toxicity to fish (Chronic toxicity):
- NOEC (Danio rerio (zebra fish)): 2 mg/l
  Exposure time: 28 d
  Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- NOEC (Daphnia magna (Water flea)): 0.47 mg/l
  Exposure time: 21 d
  Method: OECD Test Guideline 211

Toxicity to bacteria:
- EC10 (Pseudomonas putida): > 1,000 mg/l
  Exposure time: 30 min
  Method: OECD Test Guideline 209

Ethanolamine:
Toxicity to fish:
- LC50 (Cyprinus carpio (Carp)): 349 mg/l
  Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:
- EC50 (Daphnia magna (Water flea)): 65 mg/l
  Exposure time: 48 h

Toxicity to algae:
- ErC50 (Selenastrum capricornutum (green algae)): 2.8 mg/l
  Exposure time: 72 h
  NOEC (Scenedesmus capricornutum (fresh water algae)): 1 mg/l
  Exposure time: 72 h

Toxicity to fish (Chronic toxicity):
- NOEC (Oryzias latipes (Orange-red killifish)): 1.24 mg/l
  Exposure time: 41 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- NOEC (Daphnia magna (Water flea)): 0.85 mg/l
  Exposure time: 21 d

Toxicity to bacteria:
- EC50 (Pseudomonas putida): 110 mg/l
  Exposure time: 17 h

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:
Toxicity to fish:
- LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2 mg/l
  Exposure time: 96 h
  Method: OECD Test Guideline 203
  Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates:
- EC50 (Daphnia magna (Water flea)): 17.9 mg/l
  Exposure time: 48 h
  Method: OECD Test Guideline 202
  Remarks: Based on data from similar materials

Toxicity to algae:
- NOEC (Pseudokirchneriella subcapitata (green algae)): 3.2 mg/l
  Exposure time: 72 h
  Remarks: Based on data from similar materials

ErC50 (Pseudokirchneriella subcapitata (green algae)): 10
SAFETY DATA SHEET

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Date of first issue: 12/02/2014

Persistence and degradability

**Product:**
Biodegradability: Result: Biodegradable

**Ingredients:**

**Ethanol:**
Biodegradability: Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 20 d

**Propylene glycol:**
Biodegradability: Result: Readily biodegradable.
Biodegradation: 98.3 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

**Dodecanoic acid:**
Biodegradability: Result: Readily biodegradable.
Biodegradation: 86 %
Exposure time: 30 d
Method: OECD Test Guideline 301D

**Ethanolamine:**
Biodegradability: Result: Readily biodegradable.
Biodegradation: > 90 %
Exposure time: 21 d

**Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:**
Biodegradability: Result: Readily biodegradable.
Biodegradation: 79 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

Bioaccumulative potential

**Ingredients:**

**Ethanol:**
Partition coefficient: n-octanol/water: log Pow: -0.35

**Propylene glycol:**
Partition coefficient: n-octanol/water: log Pow: -1.07

**Dodecanoic acid:**
Bioaccumulation: Species: Fish  
Bioconcentration factor (BCF): 234 - 288  
Remarks: Based on data from similar materials

Partition coefficient: n-octanol/water: Pow: 4.6

Ethanolamine:  
Partition coefficient: n-octanol/water: log Pow: -1.91

Mobility in soil: No data available

Other adverse effects: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods: Waste from residues: Dispose of in accordance with local regulations.

Contaminated packaging: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG
UN number: UN 1987
Proper shipping name: ALCOHOLS, N.O.S. (Ethanol)
Class: 3
Packing group: III
Labels: 3

IATA-DGR
UN/ID No.: UN 1987
Proper shipping name: Alcohols, n.o.s. (Ethanol)
Class: 3
Packing group: III
Labels: Flammable Liquids
Packing instruction (cargo aircraft): 366
Packing instruction (passenger aircraft): 355
**SAFETY DATA SHEET**

**GOJO® E2 Foam Sanitizing Soap**

**Version**: 1.1  
**Revision Date**: 02/10/2015  
**MSDS Number**: 33047-00002  
**Date of last issue**: 12/02/2014  
**Date of first issue**: 12/02/2014

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**IMDG-Code**

- **UN number**: UN 1987  
- **Proper shipping name**: ALCOHOLS, N.O.S. (Ethanol, Triclosan)

**Class**: 3  
**Packing group**: III  
**Labels**: 3  
**EmS Code**: F-E, S-D  
**Marine pollutant**: yes

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation**

**49 CFR**

- **UN/ID/NA number**: UN 1987  
- **Proper shipping name**: ALCOHOLS, N.O.S.

**Class**: 3  
**Packing group**: III  
**Labels**: FLAMMABLE LIQUID  
**ERG Code**: 127  
**Marine pollutant**: yes (Triclosan)

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**SECTION 15. REGULATORY INFORMATION**

**EPCRA - Emergency Planning and Community Right-to-Know**

**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards**

- Fire Hazard
- Acute Health Hazard

**SARA 302**

- No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313**

- This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**US State Regulations**

**Pennsylvania Right To Know**

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>70 - 90 %</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>10 - 20 %</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>5 - 10 %</td>
</tr>
<tr>
<td>Dodecanoic acid</td>
<td>143-07-7</td>
<td>5 - 10 %</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
GOJO® E2 Foam Sanitizing Soap

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Ethanolamine 141-43-5  1 - 5 %
Propan-2-ol 67-63-0  0.1 - 1 %

**New Jersey Right To Know**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
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</tr>
<tr>
<td>Ethanolamine</td>
<td>141-43-5</td>
<td>1 - 5 %</td>
</tr>
</tbody>
</table>

**California Prop 65**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

**AICS**: All ingredients listed or exempt.

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), NECSI (Taiwan), TSCA (USA)

**SECTION 16. OTHER INFORMATION**

Further information

**NFPA**

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

**HMIS III**

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

0 = not significant, 1 =Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

**Full text of other abbreviations**

ACGIH: USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL: USA. NIOSH Recommended Exposure Limits
OSHA Z-1: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
US WEEL: USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA: 8-hour, time-weighted average
ACGIH / STEL: Short-term exposure limit
NIOSH REL / TWA: Time-weighted average concentration for up to a 10-hour
workday during a 40-hour workweek

NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA Z-1 / TWA : 8-hour time weighted average
US WEEL / TWA : 8-hr TWA


Revision Date : 02/10/2015

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8