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SECTION 1. IDENTIFICATION

Product name : PROVON® Antibacterial Plum Foam Handwash

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.



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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

Hazardous ingredients

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

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.



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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, 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 Carbon dioxide (CO2)

Dry chemical

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 prod-

ucts

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 : In the event of fire, wear self-contained breathing apparatus.



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for fire-fighters

Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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



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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.

Store in accordance with the particular national regulations.

Keep away from heat and sources of ignition.

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

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

Hazardous components without workplace control parameters

| Ingredients | CAS-No. |
|--------------------------------|------------|
| Dodecanoic acid | 143-07-7 |
| Imidazolium compounds, 1-[2- | 68650-39-5 |
| (carboxymethoxy)ethyl]-1- | |
| (carboxymethyl)-4,5-dihydro-2- | |



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norcoco alkyl, hydroxides, sodium salts

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.



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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : clear, purple

Odor : citrus

Odor Threshold : No data available

pH : 7.8 - 9.7

Melting point/freezing point : No data available

Initial boiling point and boiling

range

: 97.00 °C

Flash point : 56.00 °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 : 1.00 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.



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SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-

tions

: 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

Dodecanoic acid:

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

Method: OECD Test Guideline 401



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Acute inhalation toxicity : LC50 (Rat): > 0.162 mg/l

Exposure time: 4 h
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

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

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



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Method: OECD Test Guideline 404

Result: No skin irritation

Dodecanoic acid:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Propylene glycol:

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

Method: OECD Test Guideline 404

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

Dodecanoic acid:

Species: Rabbit

Result: Irreversible effects on the eye Method: OECD Test Guideline 405

Propylene glycol:

Species: Rabbit

Result: No eye irritation

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



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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

Dodecanoic acid:

Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact

Species: Guinea pig Result: negative

Propylene glycol:

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



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Application Route: Ingestion

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

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

Ethanolamine:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) 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 : Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

Remarks: Based on data from similar materials

: Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Remarks: Based on data from similar materials

: Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Remarks: Based on data from similar materials

Carcinogenicity

Not classified based on available information.

Ingredients:

Propylene glycol:

Species: Rat

Application Route: Ingestion



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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

Species: Mouse

Application Route: Ingestion Method: OECD Test Guideline 416

Result: negative

Dodecanoic acid:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Remarks: Based on data from similar materials

Propylene glycol:

Effects on fertility : Species: Mouse

Application Route: Ingestion

Result: negative

Effects on fetal development : Test Type: Embryo-fetal development

Species: Mouse

Application Route: Ingestion

Result: negative



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Ethanolamine:

Effects on fertility : Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: negative

Effects on fetal development : Test Type: Embryo-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

Dodecanoic acid:

Species: Rat

NOAEL: 10,000 mg/kg Application Route: Ingestion

Exposure time: 18 w

Propylene glycol:

Species: Rat

NOAEL: 1,700 mg/kg Application Route: Ingestion

Exposure time: 2 y

Ethanolamine:

Species: Rat

NOAEL: 150 mg/m3



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Application Route: inhalation (dust/mist/fume)

Exposure time: 28 d

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2norcoco 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

: EC50 (Daphnia magna (Water flea)): > 1,000 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

aquatic invertebrates

(Chronic toxicity)

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): 9.6 mg/l

Exposure time: 9 d

Toxicity to bacteria : EC50 (Photobacterium phosphoreum): 32.1 mg/l

Exposure time: 0.25 h

Dodecanoic acid:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): 5 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 3.6 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (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.



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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 : NOEC (Danio rerio (zebra fish)): 2 mg/l

toxicity) Exposure time: 28 d

Remarks: Based on data from similar materials

Toxicity to daphnia and other

aquatic invertebrates

: NOEC (Daphnia magna (Water flea)): 0.47 mg/l

Exposure time: 21 d

Method: OECD Test Guideline 211

: EC10 (Pseudomonas putida): > 1,000 mg/l Toxicity to bacteria

Exposure time: 30 min

Method: OECD Test Guideline 209

Propylene glycol:

(Chronic toxicity)

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Ceriodaphnia dubia (water flea)): 18,340 mg/l

Exposure time: 48 h

: EC50 (Skeletonema costatum (marine diatom)): 19,000 mg/l Toxicity to algae

Exposure time: 48 h

Method: OECD Test Guideline 201

Toxicity to fish (Chronic

toxicity)

: Chronic Toxicity Value: 2,500 mg/l

Exposure time: 30 d

Toxicity to daphnia and other

aquatic invertebrates

(Chronic toxicity)

: NOEC (Ceriodaphnia dubia (water flea)): 29,000 mg/l

Exposure time: 7 d

Toxicity to bacteria : NOEC (Pseudomonas putida): > 20,000 mg/l

Exposure time: 18 h

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

Exposure time: 72 h

Toxicity to fish (Chronic

toxicity)

: NOEC (Oryzias latipes (Orange-red killifish)): 1.24 mg/l

Exposure time: 41 d



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aquatic invertebrates

(Chronic toxicity)

Toxicity to daphnia and other : 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-2norcoco 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

Method: Directive 67/548/EEC, Annex V, C.3. Remarks: Based on data from similar materials

ErC50 (Pseudokirchneriella subcapitata (green algae)): 10

mg/l

Exposure time: 72 h

Method: Directive 67/548/EEC, Annex V, C.3. Remarks: Based on data from similar materials

Persistence and degradability

Product:

Biodegradability : Result: Biodegradable

Ingredients:

Ethanol:

Biodegradability : Result: Readily biodegradable.

> Biodegradation: 84 % Exposure time: 20 d

Dodecanoic acid:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 86 % Exposure time: 30 d

Method: OECD Test Guideline 301D

Propylene glycol:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 98.3 %



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Exposure time: 28 d

Method: OECD Test Guideline 301F

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-

: log Pow: -0.35

octanol/water

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

Propylene glycol:

Partition coefficient: n-

octanol/water

: log Pow: -1.07

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



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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 1170

Proper shipping name : ETHYL ALCOHOL SOLUTION

Class : 3
Packing group : III
Labels : 3

IATA-DGR

UN/ID No. : UN 1170

Proper shipping name : Ethanol solution

Class : 3
Packing group : III

Labels : Flammable Liquids

Packing instruction (cargo : 366

aircraft)

Packing instruction : 355

(passenger aircraft)

IMDG-Code

UN number : UN 1170

Proper shipping name : ETHYL ALCOHOL SOLUTION

(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 1170

Proper shipping name : ETHYL ALCOHOL SOLUTIONS

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

| II | Water | 7732-18-5 | 70 - 90 % |
|---------|-------------------|-----------|-----------|
| | Ethanol | 64-17-5 | 10 - 20 % |
| | Propylene glycol | 57-55-6 | 5 - 10 % |
| | Dodecanoic acid | 143-07-7 | 5 - 10 % |
| | Ethanolamine | 141-43-5 | 1 - 5 % |
| | Propan-2-ol | 67-63-0 | 0.1 - 1 % |
| New Jer | sey Right To Know | | |
| | Water | 7732-18-5 | 70 - 90 % |
| | Ethanol | 64-17-5 | 10 - 20 % |
| | Propylene glycol | 57-55-6 | 5 - 10 % |
| | Dodecanoic acid | 143-07-7 | 5 - 10 % |

California Prop 65 This product does not contain any chemicals known to the

State of California to cause cancer, birth, or any other

141-43-5

1 - 5 %

reproductive defects.

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

AICS : All ingredients listed or exempt.

Ethanolamine

Inventories

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



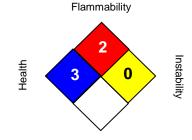
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SECTION 16. OTHER INFORMATION

Further information

NFPA:



Special hazard.

HMIS III:



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 Lim-

its 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

Sources of key data used to compile the Material Safety

Data Sheet

: Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

cy, http://echa.europa.eu/

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Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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



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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.

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