SAFETY DATA SHEET



PROVON® Foaming Antimicrobial Handwash with PCMX

Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

SECTION 1. IDENTIFICATION

Product name : PROVON® Foaming Antimicrobial Handwash with PCMX

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.



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015
3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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	>= 5 - < 10
Dodecanoic acid	143-07-7	>= 5 - < 10
Ethanolamine	141-43-5	>= 1 - < 5
I-(+)-Lactic acid	79-33-4	>= 1 - < 5
4-chloro-3,5-dimethylphenol	88-04-0	>= 0.1 - < 1

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.



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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 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

tire.

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)

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



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015
3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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

iet.

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.



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015
3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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 (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		STEL	1,000 ppm	ACGIH
Ethanolamine	141-43-5	TWA	3 ppm	ACGIH
		STEL	6 ppm	ACGIH
		TWA	3 ppm 8 mg/m3	NIOSH REL
		ST	6 ppm 15 mg/m3	NIOSH REL
		TWA	3 ppm 6 mg/m3	OSHA Z-1

Hazardous components without workplace control parameters

Ingredients	CAS-No.
Dodecanoic acid	143-07-7
I-(+)-Lactic acid	79-33-4
4-chloro-3 5-dimethylphenol	88-04-0

Engineering measures

: Minimize workplace exposure concentrations.

Use only in an area equipped with explosion proof exhaust

ventilation.

Use with local exhaust ventilation.

Dust formation may be relevant in the processing of this product. In addition to substance-specific OELs, general limitations of concentrations of particulates in the air at



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

> workplaces have to be considered in workplace risk assessment. Relevant limits include: OSHA PEL for Particulates Not Otherwise Regulated of 15 mg/m3 - total dust, 5 mg/m3 - respirable fraction; and ACGIH TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified of 3 mg/m3 - respirable particles, 10 mg/m3 inhalable particles.

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

: Select appropriate protective clothing based on chemical Skin and body protection

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.



Version 3.0

Revision Date: 05/05/2015

MSDS Number: 36491-00004

Date of last issue: 04/17/2015 Date of first issue: 12/11/2014

Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : clear, Slightly hazy, blue green

Odor : fruity

Odor Threshold : No data available

pH : 7.8 - 9.7

Melting point/freezing point : No data available

Initial boiling point and boiling

range

: No data available

Flash point : 45.6 °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 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.



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015
3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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

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

I-(+)-Lactic acid:

Acute oral toxicity : LD50 (Rat, female): 3,543 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 7.94 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

4-chloro-3,5-dimethylphenol:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg

Method: Expert judgment

Remarks: Based on harmonised classification in EU regulation

1272/2008, Annex VI

Acute inhalation toxicity : LC50 (Rat): > 6.29 mg/l

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: No skin irritation

Ingredients:

Ethanol:

Species: Rabbit



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015
3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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

I-(+)-Lactic acid: Species: Rabbit Result: Skin irritation

4-chloro-3,5-dimethylphenol:

Result: Skin irritation

Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

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

Ethanolamine:

Species: Rabbit

Result: Irreversible effects on the eye

I-(+)-Lactic acid:

Species: Chicken eye

Result: Irreversible effects on the eye

4-chloro-3,5-dimethylphenol:

Result: Irreversible effects on the eye

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.



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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

Ethanolamine:

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

Species: Guinea pig Result: negative

I-(+)-Lactic acid:

Test Type: Buehler Test

Routes of exposure: Skin contact

Species: Guinea pig Result: negative

4-chloro-3,5-dimethylphenol:

Assessment: Probability or evidence of skin sensitization in humans

Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

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

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

Method: OECD Test Guideline 476

Result: negative



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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

I-(+)-Lactic acid:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro

Metabolic activation: with and without metabolic activation

Result: negative

Remarks: Based on data from similar materials

: Test Type: Bacterial reverse mutation assay (AMES)

Metabolic activation: with and without metabolic activation

Result: negative

4-chloro-3,5-dimethylphenol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Carcinogenicity

Not classified based on available information.

Ingredients:

I-(+)-Lactic acid: Species: Rat

Application Route: Ingestion Exposure time: 2 Years

Result: negative

Remarks: Based on data from similar materials

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



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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

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.

I-(+)-Lactic acid:

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.



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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

Ethanolamine:

Species: Rat

NOAEL: 150 mg/m3

Application Route: inhalation (dust/mist/fume)

Exposure time: 28 d

I-(+)-Lactic acid:

Species: Rat

NOAEL: >= 886 mg/kg

Application Route: Skin contact

Exposure time: 13 w

4-chloro-3,5-dimethylphenol:

Species: Rabbit LOAEL: 180 mg/kg

Application Route: Skin contact

Exposure time: 90 d

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



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015
3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

Toxicity to daphnia and other aquatic invertebrates

(Chronic toxicity)

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.

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



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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

I-(+)-Lactic acid:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 130 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 250 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : NOEC (Selenastrum capricornutum (fresh water algae)): 1.9

g/l

Exposure time: 72 h

Method: OECD Test Guideline 201

EC50 (Selenastrum capricornutum (fresh water algae)): 3.5 g/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to bacteria : EC50: > 100 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

4-chloro-3,5-dimethylphenol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.76 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 7.7 mg/l

Exposure time: 48 h

M-Factor (Acute aquatic tox-

icity)

Persistence and degradability

Ingredients:

Ethanol:

Biodegradability : Result: Readily biodegradable.

: 1

Biodegradation: 84 % Exposure time: 20 d

Dodecanoic acid:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 86 % Exposure time: 30 d

Method: OECD Test Guideline 301D



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

Ethanolamine:

Biodegradability : Result: Readily biodegradable.

Biodegradation: > 90 % Exposure time: 21 d

I-(+)-Lactic acid:

Biodegradability : Result: Not readily biodegradable.

Biodegradation: 67 % Exposure time: 20 d

Bioaccumulative potential

Ingredients:

Ethanol:

Partition coefficient: n-

octanol/water

: log Pow: -0.35

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

I-(+)-Lactic acid:

Partition coefficient: n-

octanol/water

: log Pow: -0.6

4-chloro-3,5-dimethylphenol:

Partition coefficient: n-

octanol/water

: log Pow: 3.27

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.



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG

UN number : UN 1993

Proper shipping name : FLAMMABLE LIQUID, N.O.S.

(Ethanol)

Class : 3
Packing group : III
Labels : 3

IATA-DGR

UN/ID No. : UN 1993

Proper shipping name : Flammable liquid, n.o.s.

(Ethanol)

: 366

Class : 3
Packing group : III

Labels : Flammable Liquids

Packing instruction (cargo

aircraft)

Packing instruction : 355

(passenger aircraft)

IMDG-Code

UN number : UN 1993

Proper shipping name : FLAMMABLE LIQUID, N.O.S.

(Ethanol)

Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, <u>S-E</u>
Marine pollutant : no

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 : NA 1993

Proper shipping name : COMBUSTIBLE LIQUID, N.O.S.

(Ethanol)

Class : CBL
Packing group : III
Labels : None
ERG Code : 128
Marine pollutant : no

Remarks : Above applies only to containers over 119 gallons or 450

liters. Not regulated if shipped in packages less than or equal



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

to 119 gallons (450 liters).

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

Water	7732-18-5	70 - 90 %	
Ethanol	64-17-5	5 - 10 %	
Dodecanoic acid	143-07-7	5 - 10 %	
Ethanolamine	141-43-5	1 - 5 %	
Dipropylene glycol	25265-71-8	1 - 5 %	
Propan-2-ol	67-63-0	0.1 - 1 %	

New Jersey Right To Know

Water	7732-18-5	70 - 90 %	
Ethanol	64-17-5	5 - 10 %	
Dodecanoic acid	143-07-7	5 - 10 %	
Ethanolamine	141-43-5	1 - 5 %	
Dipropylene alycol	25265-71-8	1 - 5 %	

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



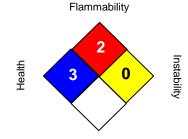
Version Revision Date: MSDS Number: Date of last issue: 04/17/2015
3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

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

SECTION 16. OTHER INFORMATION

Further information

NFPA:



Special hazard.

HMIS III:

HEALTH	3
FLAMMABILITY	2
PHYSICAL HAZARD	0

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

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

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/

Revision Date : 05/05/2015

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, un-



Version Revision Date: MSDS Number: Date of last issue: 04/17/2015 3.0 05/05/2015 36491-00004 Date of first issue: 12/11/2014

less 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.

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