Printing date 09/21/2015 Reviewed on 09/21/2015

1 Identification

- · Product identifier
- · Trade name: Citrus Cleaner
- · Article number: 83-273926
- · Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- · Application of the substance / the mixture
- · Details of the supplier of the safety data sheet
- · Information department: Environmental, Health, and Safety department.

2 Hazard(s) identification

· Classification of the substance or mixture

Flam. Liq. 3 H226 Flammable liquid and vapor.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms









GHS02

GHS05

05 GHS07

GHS09

- · Signal word Danger
- · Hazard-determining components of labeling:

(R)-p-mentha-1,8-diene

Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-,branched

· Hazard statements

Flammable liquid and vapor.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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/doctor.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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Trade name: Citrus Cleaner

(Contd. of page 1)

- · Classification system:
- · NFPA ratings (scale 0 4)



· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:			
5989-27-5	(R)-p-mentha-1,8-diene	75-100%	
127087-87-0	Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-,branched	≤10%	

· Additional information: For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

In the event of persistent symptoms recieve medical treatment.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Seek medical treatment.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, sand, extinguishing powder. Do not use water.

(Contd. on page 3)

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Trade name: Citrus Cleaner

(Contd. of page 2)

Foam

- · For safety reasons unsuitable extinguishing agents: Water
- · Special hazards arising from the substance or mixture Formation of toxic gases is possible during heating or in case of fire.
- · Advice for firefighters
- · Protective equipment:

Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- · Storage: cool and dry
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Store away from foodstuffs.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· Additional information: The lists that were valid during the creation were used as basis.

(Contd. on page 4)

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(Contd. of page 3)

- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

· Information on basic physical and	chemical properties
· General Information · Appearance:	
Form:	Liquid
Color:	According to product specification
· Odor:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	176 °C (349 °F)
· Flash point:	47 °C (117 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	255 °C (491 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	0.7 Vol %

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	(Contd. of p	page
Upper:	6.1 Vol %	
· Vapor pressure at 20 °C (68 °F):	2.3 hPa (2 mm Hg)	
· Density at 20 °C (68 °F):	0.86203 g/cm³ (7.194 lbs/gal)	
· Relative density	Not determined.	
· Vapour density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water:	Not miscible or difficult to mix.	
· Partition coefficient (n-octanol/wate	er): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	90.1 %	
Solids content:	4.5 %	
· Other information	No further relevant information available.	
· Volatile Organic Compounds:	Not determined	

10 Stability and reactivity

- · Reactivity No decomposition if stored and applied as directed.
- · Chemical stability No decomposition if stored and applied as directed
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid Keep away from heat and sources of ignition.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

5989-27-5 (R)-p-mentha-1,8-diene

Oral LD50 4400 mg/kg (rat)

- · Primary irritant effect:
- · on the skin: May cause skin irritation.
- · on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- $\cdot \textit{Additional toxicological information:}$

The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

(Contd. on page 6)

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(Contd. of page 5)

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

5989-27-5 (R)-p-mentha-1,8-diene

3

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Very toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to Federal, State, and Local regulations.

14 Transport information

- · UN-Number
- · DOT, ADR, IMDG, IATA

UN2924

(Contd. on page 7)

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Trade name: Citrus Cleaner

ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-,branched) • ADR 2924 Flammable liquids, corrosive, n.o.s. (Dipentene, Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega- hydroxy-,branched), ENVIRONMENTALLY HAZARDOUS • IMDG • IMDG FLAMMABLE LIQUID, CORROSIVE, N.O.S. (DIPENTENE, Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega- hydroxy-,branched), MARINE POLLUTANT • IATA FLAMMABLE LIQUID, CORROSIVE, N.O.S. (DIPENTENE,		(Contd. of page 6
ADR 2924 Flammable liquids, corrosive, n.o.s. (Dipentene, Poly(oxy-1,2-ethned)), alpha-(4-nonylphenyl)-omega-hydroxy-branched), ENVIRONMENTALLY HAZARDOUS FLAMMABLE LIQUID, CORROSIVE, N.O.S. (DIPENTENE, Poly(oxy-1,2-ethnediyl), alpha-(4-nonylphenyl)-omega-hydroxy-branched), MARINE POLLUTANT IATA FLAMMABLE LIQUID, CORROSIVE, N.O.S. (DIPENTENE, Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-branched) Transport hazard class(es) DOT Class J Flammable liquids ADR Class J Flammable liquids 3+8 IMDG Class J Flammable liquids 3+8 IMDG Class J Flammable liquids 3-8 IATA Class J Flammable liquids 3-8 IATA Product contains environmentally hazardous substances: (R)-brain environmentally hazardous substances: (R)-b		Flammable liquids, corrosive, n.o.s. (Dipentene, Poly(oxy-1,2-ethanediy)), alpha-(4-nonylphenyl)-omega-hydroxy- branched)
IMDG FLAMMABLE LIQUID, CORROSIVE, N.O.S. (DIPENTENE, Poly(xxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-branched), MARNE POLUTIANT FLAMMABLE LIQUID, CORROSIVE, N.O.S. (DIPENTENE, Poly(xxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-branched) Transport hazard class(es) DOT Class Japla ADR Class Japla IMDG Class Japla Class Japla Immable liquids 3+8 IMDG Class Japla IMDG Class Japla Class Japla IMDG Class Japla Class Japla IMDG Class Japla C	· ADR	2924 Flammable liquids, corrosive, n.o.s. (Dipentene, Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-
- IATA - FLAMMABLE LIQUID, CORROSIVE, N.O.S. (DIPENTENE, Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-branched) - Transport hazard class(es) - DOT - Class - Label - ADR - Class - Label - IMDG - Class - Label - IMDG - Class - Label - Class - Label - ATA - Class - Label - Class - Label - ATA - Class - Label - ATA - Class - Label - Class - Label - ATA - Class - Label - Class - Label - Class - Label - ATA - Class - Label - Cla	· IMDG	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (DIPENTENE, Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-
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• DOT, ADR, IMDG, IATA III • Environmental hazards: Product contains environmentally hazardous substances: (R)-		
		III
	· Environmental hazards:	

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Trade name: Citrus Cleaner

	(Contd. of page
Marine pollutant:	Yes
	Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
Special precautions for user	Warning: Flammable liquids
Danger code (Kemler):	38
EMS Number:	F- E , S - C
Transport in bulk according to Annex II of MARPOL73	/78
and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Remarks:	Add "Marine Pollutant" to end of proper shipping name
	shipping in a bulk container (>119 gallons).
	Special marking with the symbol (fish and tree).
ADR	
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
U.S. Domestic Ground Shipments:	Combustible liquids, n.o.s. (Petroleum Distillates), NA199
	PG III
U.S. Domestic Ground Non-Bulk (119 gal or less per	
container) Shipments:	DOT: Not regulated (Reclassified as per 49CFR 173.150).
Emergency Response Guide (ERG) Number:	Not determine
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (\widetilde{EQ})	Code: E1
- -	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN2924, Flammable liquids, corrosive, n.o.s. (Dipenten
Ü	Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omeg
	hydroxy-,branched), ENVIRONMENTALLY HAZARDOUS,
	(8), <i>III</i>

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

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· Proposition 65

· Chemicals known to the State of California (Prop. 65) to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms









GHS02

GHS05 GHS07

GHS09

- · Signal word Danger
- · Hazard-determining components of labeling:

(R)-p-mentha-1,8-diene

Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-,branched

· Hazard statements

Flammable liquid and vapor.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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/doctor.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · National regulations:
- · Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

(Contd. on page 10)

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(Contd. of page 9)

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

The provided information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Environmental, Health & Safety Department
- · Contact: Environmental, Health & Safety Manager
- · Date of preparation / last revision 09/21/2015 / 75
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1