

SAFETY DATA SHEET

1. Identification

Product identifier: Raymond Citrus Degreaser - 990-400/RDI

Other means of identification

SDS number: RE1000040387

Recommended restrictions

Product Use: Cleaner

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: RAYMOND CORPORATION
Address: 6650 KIRKVILLE ROAD
EAST SYRACUSE, NY 13057
Telephone: 1-315-463-5000
Fax:

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol Category 1

Health Hazards

Serious Eye Damage/Eye Irritation Category 2A

Skin sensitizer Category 1

Aspiration Hazard Category 1

Environmental Hazards

Acute hazards to the aquatic environment Category 2

Chronic hazards to the aquatic environment Category 2

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Extremely flammable aerosol.
Causes serious eye irritation.
May cause an allergic skin reaction.
May be fatal if swallowed and enters airways.
Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water/# If skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor/# Do NOT induce vomiting. Specific treatment (see on this label). Wash contaminated clothing before reuse. Collect spillage.

Storage: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

| Chemical Identity | CAS number | Content in percent (%)* |
|---|------------|-------------------------|
| Distillates (petroleum), hydrotreated light | 64742-47-8 | 25 - <50% |
| Ethanol, 2-(2-butoxyethoxy)- | 112-34-5 | 20 - <50% |
| 2-Propanone | 67-64-1 | 10 - <20% |
| Hexanedioic acid, 1,6-dimethyl ester | 627-93-0 | 10 - <25% |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- | 5989-27-5 | 5 - <10% |
| Poly(oxy-1,2-ethanediyl), #-undecyl-#-hydroxy- | 34398-01-1 | 1 - <5% |
| Carbon dioxide | 124-38-9 | 1 - <5% |

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

| | |
|----------------------|---|
| Ingestion: | Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| Inhalation: | Move to fresh air. |
| Skin Contact: | Get medical attention if symptoms occur. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention. |
| Eye contact: | Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. |

Most important symptoms/effects, acute and delayed

| | |
|------------------|--------------------|
| Symptoms: | No data available. |
| Hazards: | No data available. |

Indication of immediate medical attention and special treatment needed

| | |
|-------------------|--------------------|
| Treatment: | No data available. |
|-------------------|--------------------|

5. Fire-fighting measures

| | |
|------------------------------|---|
| General Fire Hazards: | Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk. |
|------------------------------|---|

Suitable (and unsuitable) extinguishing media

| | |
|--|--|
| Suitable extinguishing media: | Use fire-extinguishing media appropriate for surrounding materials. |
| Unsuitable extinguishing media: | Do not use water jet as an extinguisher, as this will spread the fire. |

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| Specific hazards arising from the chemical: | Vapors may travel considerable distance to a source of ignition and flash back. |
|--|---|

Special protective equipment and precautions for firefighters

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|--|--|
| Special fire fighting procedures: | No data available. |
| Special protective equipment for fire-fighters: | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up:

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures:

Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

Environmental Precautions:

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling:

Wash hands thoroughly after handling. Avoid contact with eyes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities:

Store locked up. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 3

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

| Chemical Identity | Type | Exposure Limit Values | Source |
|---|--------|-------------------------|---|
| Distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor | TWA | 200 mg/m ³ | US. ACGIH Threshold Limit Values (2008) |
| Distillates (petroleum), hydrotreated light | REL | 100 mg/m ³ | US. NIOSH: Pocket Guide to Chemical Hazards (2005) |
| Distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor | TWA | 200 mg/m ³ | US. ACGIH Threshold Limit Values (2008) |
| Distillates (petroleum), hydrotreated light | ST ESL | 3,500 µg/m ³ | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016) |
| | AN ESL | 350 µg/m ³ | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016) |
| Ethanol, 2-(2-butoxyethoxy)- | ST ESL | 670 µg/m ³ | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016) |
| | ST ESL | 100 ppb | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016) |
| | AN ESL | 10 ppb | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016) |

| | | | |
|---|---------|-------------------------|--|
| | AN ESL | 67 µg/m3 | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016) |
| Ethanol, 2-(2-butoxyethoxy)- - Inhalable fraction and vapor. | TWA | 10 ppm | US. ACGIH Threshold Limit Values (03 2013) |
| 2-Propanone | STEL | 1,000 ppm 2,400 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| | STEL | 750 ppm 1,780 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
| | PEL | 1,000 ppm 2,400 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| | TWA | 250 ppm | US. ACGIH Threshold Limit Values (03 2015) |
| | TWA | 750 ppm 1,800 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| | Ceiling | 3,000 ppm | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
| | STEL | 500 ppm | US. ACGIH Threshold Limit Values (03 2015) |
| | TWA PEL | 500 ppm 1,200 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
| | REL | 250 ppm 590 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2005) |
| Carbon dioxide | TWA | 5,000 ppm | US. ACGIH Threshold Limit Values (2008) |
| | STEL | 30,000 ppm | US. ACGIH Threshold Limit Values (2008) |
| | STEL | 30,000 ppm 54,000 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2005) |
| | REL | 5,000 ppm 9,000 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2005) |
| | PEL | 5,000 ppm 9,000 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| | TWA | 10,000 ppm 18,000 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| | STEL | 30,000 ppm 54,000 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| | TWA | 10,000 ppm 18,000 mg/m3 | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| | STEL | 30,000 ppm 54,000 mg/m3 | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| | STEL | 30,000 ppm 54,000 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |
| | TWA PEL | 5,000 ppm 9,000 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006) |

Biological Limit Values

| Chemical Identity | Exposure Limit Values | Source |
|--|-----------------------|---------------------|
| 2-Propanone (acetone: Sampling time: End of shift.) | 25 mg/l (Urine) | ACGIH BEL (03 2015) |

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

| | |
|--------------------------------|---|
| General information: | Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If exposure limits have not been established, maintain airborne levels to an acceptable level. |
| Eye/face protection: | Wear safety glasses with side shields (or goggles). |
| Skin Protection | |
| Hand Protection: | No data available. |
| Other: | Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information. |
| Respiratory Protection: | In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor. |
| Hygiene measures: | Observe good industrial hygiene practices. Avoid contact with eyes. When using do not smoke. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin. |

9. Physical and chemical properties

Appearance

| | |
|--|---------------------|
| Physical state: | liquid |
| Form: | Spray Aerosol |
| Color: | No data available. |
| Odor: | No data available. |
| Odor threshold: | No data available. |
| pH: | No data available. |
| Melting point/freezing point: | No data available. |
| Initial boiling point and boiling range: | 138.4 °C |
| Flash Point: | -104.4 °C |
| Evaporation rate: | No data available. |
| Flammability (solid, gas): | No data available. |
| Upper/lower limit on flammability or explosive limits | |
| Flammability limit - upper (%): | estimated 17.8 %(V) |
| Flammability limit - lower (%): | Estimated 1.1 %(V) |
| Explosive limit - upper (%): | No data available. |
| Explosive limit - lower (%): | No data available. |
| Vapor pressure: | No data available. |
| Vapor density: | No data available. |
| Density: | No data available. |
| Relative density: | No data available. |
| Solubility(ies) | |

| | |
|---|--------------------|
| Solubility in water: | No data available. |
| Solubility (other): | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |
| Auto-ignition temperature: | No data available. |
| Decomposition temperature: | No data available. |
| Viscosity: | No data available. |

10. Stability and reactivity

| | |
|--|---|
| Reactivity: | No data available. |
| Chemical Stability: | Material is stable under normal conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Avoid heat or contamination. |
| Incompatible Materials: | No data available. |
| Hazardous Decomposition Products: | No data available. |

11. Toxicological information

Information on likely routes of exposure

| | |
|----------------------|--------------------|
| Inhalation: | No data available. |
| Skin Contact: | No data available. |
| Eye contact: | No data available. |
| Ingestion: | No data available. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|----------------------|--------------------|
| Inhalation: | No data available. |
| Skin Contact: | No data available. |
| Eye contact: | No data available. |
| Ingestion: | No data available. |

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

| | |
|-----------------|-------------------------|
| Oral | |
| Product: | ATEmix: 51,413.88 mg/kg |
| Dermal | |
| Product: | ATEmix: 9,305.7 mg/kg |

Inhalation

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Distillates (petroleum),
hydrotreated light LC 50: > 5 mg/l
LC 50: > 20 mg/l

Ethanol, 2-(2-
butoxyethoxy)- LC 50 (Various): > 20 mg/l

2-Propanone LC 50 (Rat): 50.1 mg/l

Hexanedioic acid, 1,6-
dimethyl ester LC 50 (Rat): > 11 mg/l

Cyclohexene, 1-methyl-4-
(1-methylethenyl)-, (4R)- LC 50: > 20 mg/l
LC 50: > 5 mg/l

Poly(oxy-1,2-ethanediyl),
#-undecyl-#-hydroxy- LC 50: > 5 mg/l
LC 50: > 20 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s):

Distillates (petroleum),
hydrotreated light NOAEL (Rat(Female, Male), Inhalation): \geq 24 mg/m³ Inhalation
Experimental result, Key study
NOAEL (Rat(Female), Oral, 70 - 147 d): 750 mg/kg Oral Experimental result,
Key study

Ethanol, 2-(2-
butoxyethoxy)- NOAEL (Rat(Female, Male), Oral, 90 d): 250 mg/kg Oral Experimental
result, Key study
NOAEL (Rat(Female, Male), Dermal, 13 Weeks): > 2,000 mg/kg Dermal
Experimental result, Key study
NOAEL (Rat(Female, Male), Inhalation, 90 - 120 d): 14 ppm(m) Inhalation
Experimental result, Key study

2-Propanone NOAEL (Rat(Male), Oral, 13 Weeks): 10,000 ppm(m) Oral Experimental
result, Key study

Hexanedioic acid, 1,6-
dimethyl ester NOAEL (Rat(Female, Male), Inhalation): 50 mg/m³ Inhalation Experimental
result, Key study
NOAEL (Rat(Male), Inhalation): 10 mg/m³ Inhalation Experimental result,
Key study
NOAEL (Rat(Female, Male), Dermal, 2 Weeks): 1,000 mg/kg Dermal Read-
across based on grouping of substances (category approach), Supporting
study

Cyclohexene, 1-methyl-4-
(1-methylethenyl)-, (4R)- NOAEL (Rat(Male), Oral, 13 Weeks): 600 mg/kg Oral Experimental result,
Key study

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

| | |
|---|---|
| Distillates (petroleum), hydrotreated light | in vivo (Rabbit): Not irritant Experimental result, Key study |
| Ethanol, 2-(2-butoxyethoxy)- | in vivo (Rabbit): Not irritant Experimental result, Supporting study |
| 2-Propanone | in vivo (Rabbit): Not irritant Experimental result, Supporting study |
| Hexanedioic acid, 1,6-dimethyl ester | in vivo (Rabbit): Category 2 Read-across based on grouping of substances (category approach), Supporting study in vivo (Rabbit): Category 2 Read-across based on grouping of substances (category approach), Supporting study in vivo (Rabbit): Not Classified Experimental result, Supporting study in vivo (Rabbit): Not irritant Experimental result, Supporting study in vivo (Rabbit): Not irritant Read-across based on grouping of substances (category approach), Key study in vivo (Rabbit): Not irritant Read-across based on grouping of substances (category approach), Key study in vivo (Rabbit): Category 2 Read-across based on grouping of substances (category approach), Supporting study in vivo (Rabbit): Not irritant Read-across based on grouping of substances (category approach), Key study |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- | in vivo (Rabbit): Not irritant Experimental result, Key study |

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

| | |
|---|--|
| Distillates (petroleum), hydrotreated light | Rabbit, 24 - 72 hrs: Not irritating |
| Ethanol, 2-(2-butoxyethoxy)- | Rabbit, 24 - 72 hrs: Highly irritating |
| 2-Propanone | Irritating. Rabbit, 24 hrs: Minimum grade of severe eye irritant |
| Hexanedioic acid, 1,6-dimethyl ester | Rabbit, 1 hrs: Not irritating Rabbit, 1 hrs: Not irritating Rabbit, 1 hrs: Not irritating Rabbit, 1 hrs: Not irritating |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- | Rabbit, 24 - 72 hrs: Not irritating |

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

| | |
|---|--|
| Distillates (petroleum), hydrotreated light | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| Ethanol, 2-(2-butoxyethoxy)- | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| 2-Propanone | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| Hexanedioic acid, 1,6-dimethyl ester | Skin sensitization:, in vivo (Guinea pig): Non sensitising |

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s):

2-Propanone Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated light May be fatal if swallowed and enters airways.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

| | |
|--|---|
| Product: | No data available. |
| Specified substance(s): Distillates (petroleum), hydrotreated light | LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 2.9 mg/l Mortality NOAEL (Oncorhynchus mykiss, 96 h): 2 mg/l Experimental result, Key study |
| Ethanol, 2-(2- butoxyethoxy)- | LC 50 (Lepomis macrochirus, 96 h): 1,300 mg/l Experimental result, Key study LC 50 (Pimephales promelas, 96 h): 2,400 mg/l Experimental result, Supporting study |
| 2-Propanone | LC 50 (Oncorhynchus mykiss, 96 h): 5,540 mg/l Experimental result, Key study |
| Cyclohexene, 1-methyl-4- (1-methylethenyl)-, (4R)- | EC 50 (Pimephales promelas, 96 h): 688 µg/l Experimental result, Key study |
| Poly(oxy-1,2-ethanediyl), #-undecyl-#-hydroxy- | LC 50 (Fathead minnow (Pimephales promelas), 96 h): 3.2 - 5 mg/l Mortality |

Aquatic Invertebrates

| | |
|--|--|
| Product: | No data available. |
| Specified substance(s): Distillates (petroleum), hydrotreated light | EC 50 (Daphnia magna, 24 h): 4.6 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.3 mg/l Experimental result, Key study EC 50 (Daphnia magna, 48 h): 1.4 mg/l Experimental result, Key study |
| Ethanol, 2-(2- butoxyethoxy)- | LC 50 (Daphnia magna, 48 h): +/- 1,743 mg/l QSAR QSAR, Supporting study |
| 2-Propanone | LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study |
| Hexanedioic acid, 1,6- dimethyl ester | EC 50 (Daphnia magna, 48 h): 72 mg/l Experimental result, Key study NOAEL (Daphnia magna, 24 h): 120 mg/l Read-across based on grouping of substances (category approach), Supporting study LC 50 (Daphnia magna, 24 h): 180 mg/l Read-across based on grouping of substances (category approach), Supporting study LOAEL (Daphnia magna, 24 h): 140 mg/l Read-across based on grouping of substances (category approach), Supporting study |
| Cyclohexene, 1-methyl-4- (1-methylethenyl)-, (4R)- | EC 50 (Daphnia magna, 48 h): 0.36 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.074 mg/l Experimental result, Key study |
| Poly(oxy-1,2-ethanediyl), #-undecyl-#-hydroxy- | EC 50 (Water flea (Daphnia magna), 48 h): 1.6 - 2.5 mg/l Intoxication |

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):
Distillates (petroleum),
hydrotreated light NOAEL (Oncorhynchus mykiss): 0.098 mg/l QSAR QSAR, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):
Distillates (petroleum),
hydrotreated light NOAEL (Daphnia magna): 1.2 mg/l Experimental result, Key study
EC 50 (Daphnia magna): 0.81 mg/l Experimental result, Key study

2-Propanone LOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study
NOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- NOAEL (Freshwater invertebrates, species frequently include Daphnia magna or Daphnia pulex): 0.115 mg/l QSAR QSAR, Weight of Evidence study

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):
Distillates (petroleum),
hydrotreated light 61 % Detected in water. Experimental result, Supporting study

Ethanol, 2-(2-butoxyethoxy)- 85 % (28 d) Detected in water. Experimental result, Key study

2-Propanone 90.9 % (28 d) Detected in water. Experimental result, Key study

Hexanedioic acid, 1,6-dimethyl ester 100 % Detected in water. Read-across based on grouping of substances (category approach), Key study
97 % Detected in water. Read-across based on grouping of substances (category approach), Key study
87 % (28 d) Sediment Read-across based on grouping of substances (category approach), Key study
36 % (21 d) Detected in water. Read-across based on grouping of substances (category approach), Supporting study

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- 80 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

2-Propanone Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment
Experimental result, Not specified

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- Bioconcentration Factor (BCF): 864.8 Aquatic sediment QSAR, Key study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- Log Kow: 4.34 - 4.46 25 °C No Experimental result, Supporting study

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Distillates (petroleum), hydrotreated light No data available.

Ethanol, 2-(2-butoxyethoxy)- No data available.

2-Propanone No data available.

Hexanedioic acid, 1,6-dimethyl ester No data available.

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- No data available.

Poly(oxy-1,2-ethanediyl), #-undecyl-#-hydroxy- No data available.

Carbon dioxide No data available.

Other adverse effects: Toxic to aquatic life with long lasting effects.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated Packaging: No data available.

14. Transport information

DOT

UN Number: UN 1950
UN Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es)
Class: 2.1
Label(s): -
Packing Group: II
Marine Pollutant: No

Environmental Hazards: No
Marine Pollutant: No

Special precautions for user: Not regulated.

IMDG

UN Number: UN 1950
UN Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es)
Class: 2
Label(s): –
EmS No.: F-D, S-U
Packing Group: –
Environmental Hazards: Yes
Marine Pollutant: No

Special precautions for user: Not regulated.

IATA

UN Number: UN 1950
Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es):
Class: 2.1
Label(s): –
Packing Group: –
Environmental Hazards: Yes
Marine Pollutant: No

Special precautions for user: Not regulated.
Cargo aircraft only: Allowed.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| 2-Propanone | lbs. 5000 |

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Fire Hazard
Immediate (Acute) Health Hazards
Flammable aerosol
Serious Eye Damage/Eye Irritation
Skin sensitizer
Aspiration Hazard

SARA 302 Extremely Hazardous Substance

| <u>Chemical Identity</u> | <u>Reportable quantity</u> | <u>Threshold Planning Quantity</u> |
|--|----------------------------|------------------------------------|
| Distillates (petroleum), hydrotreated light 2-Propanone | | |

SARA 304 Emergency Release Notification

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--|----------------------------|
| Distillates (petroleum), hydrotreated light Ethanol, 2-(2-butoxyethoxy)- 2-Propanone | lbs. 5000 |

SARA 311/312 Hazardous Chemical

| <u>Chemical Identity</u> | <u>Threshold Planning Quantity</u> |
|---|------------------------------------|
| Distillates (petroleum), hydrotreated light | 10000 lbs |
| Ethanol, 2-(2-butoxyethoxy)- 2-Propanone | 10000 lbs |
| Hexanedioic acid, 1,6-dimethyl ester | 10000 lbs |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- | 10000 lbs |
| Poly(oxy-1,2-ethanediyl), #-undecyl-#-hydroxy- | 10000 lbs |
| Carbon dioxide | 10000 lbs |

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| <u>Chemical Identity</u> | <u>Reporting threshold for other users</u> | <u>Reporting threshold for manufacturing and processing</u> |
|------------------------------|--|---|
| Ethanol, 2-(2-butoxyethoxy)- | N230 lbs | N230 lbs. |

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act

| <u>Chemical Identity</u> |
|---|
| Distillates (petroleum), hydrotreated light |
| Ethanol, 2-(2-butoxyethoxy)- 2-Propanone |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- |
| Carbon dioxide |

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Distillates (petroleum), hydrotreated light
Ethanol, 2-(2-butoxyethoxy)-
2-Propanone
Carbon dioxide

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

Distillates (petroleum),
hydrotreated light
2-Propanone

Stockholm convention

Distillates (petroleum),
hydrotreated light
2-Propanone

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Rotterdam convention

Distillates (petroleum),
hydrotreated light
2-Propanone

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Kyoto protocol

16. Other information, including date of preparation or last revision

Issue Date: 07/08/2019

Revision Information: No data available.

Version #: 1.0

Further Information: No data available.

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.