



VELTEK ASSOCIATES, INC.

DECON-CYCLE®. Also known as: DECON-CYCLE® II

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Version: 8.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : DECON-CYCLE®. Also known as: DECON-CYCLE® II
Product code : SDS DCY-98-01

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Disinfectant

1.3. Supplier

Veltek Associates, Inc.
15 Lee Blvd
Malvern, PA 19355-1234 USA
Telephone: +1 610-644-8335 - Fax: +1 610-644-8336
E-mail: vai@sterile.com

In Canada distributed by:
Canada Clean Room (CCR)
20 Cope Dr.
Kanata, ON K2M 2V8, Canada
Telephone: (888)595-8070

1.4. Emergency telephone number

Emergency number : CARECHEM 24: 1-215-207-0061
1-866-928-0789 (toll free)
Canada: 1-800-579-7421 (toll free)
Mexico: +52-55-5004-8763

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 3	H226 Flammable liquid and vapor
Skin corrosion/irritation Category 2	H315 Causes skin irritation
Serious eye damage/eye irritation Category 1	H318 Causes serious eye damage
Skin sensitization, Category 1	H317 May cause an allergic skin reaction
Carcinogenicity Category 2	H351 Suspected of causing cancer
Reproductive toxicity Category 2	H361 Suspected of damaging fertility or the unborn child
Specific target organ toxicity (repeated exposure) Category 2	H373 May cause damage to organs (kidneys) through prolonged or repeated exposure
Hazardous to the aquatic environment - Acute Hazard Category 2	H401 Toxic to aquatic life
Hazardous to the aquatic environment - Chronic Hazard Category 1	H410 Very toxic to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H226 - Flammable liquid and vapor
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage

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Precautionary statements (GHS US)	H351 - Suspected of causing cancer
	H361 - Suspected of damaging fertility or the unborn child
	H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure
	H410 - Very toxic to aquatic life with long lasting effects
	: P201 - Obtain special instructions before use.
	P202 - Do not handle until all safety precautions have been read and understood.
	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P233 - Keep container tightly closed.
	P240 - Ground/Bond container and receiving equipment.
	P241 - Use explosion-proof electrical, lighting, ventilating equipment.
	P242 - Use only non-sparking tools.
	P243 - Take precautionary measures against static discharge.
	P260 - Do not breathe vapors.
	P264 - Wash hands thoroughly after handling.
	P272 - Contaminated work clothing should not be allowed out of the workplace.
	P273 - Avoid release to the environment.
	P280 - Wear eye protection, protective gloves, protective clothing.
	P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
	P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P310 - Immediately call a doctor.
	P308+P313 - If exposed or concerned: Get medical advice/attention.
	P362+P364 - Take off contaminated clothing and wash it before reuse.
	P363 - Wash contaminated clothing before reuse.
	P370+P378 - In case of fire: Use foam, Dry powder, carbon dioxide (CO ₂), Water spray to extinguish.
	P391 - Collect spillage.
	P403+P235 - Store in a well-ventilated place. Keep cool.
	P405 - Store locked up.
	P501 - Dispose of contents/container to an authorized waste collection point.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
2-methylpentane-2,4-diol (hexylene glycol)	(CAS-No.) 107-41-5	10 - < 30	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Citric acid	(CAS-No.) 77-92-9	10 - < 30	Eye Irrit. 2A, H319
Isopropanol	(CAS-No.) 67-63-0	7 - < 13	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Biphenyl-2-ol (ortho-phenylphenol)	(CAS-No.) 90-43-7	5 - < 10	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Clorofene (ortho-benzyl-para-chlorophenol)	(CAS-No.) 120-32-1	5 - < 10	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 2, H351 Repr. 2, H361 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 (M = 100)
2,2',2''-nitilotriethanol	(CAS-No.) 102-71-6	1 - < 5	Not classified
Benzenesulfonic acid, C10-16-alkyl derivs.	(CAS-No.) 68584-22-5	1 - < 5	Eye Irrit. 2A, H319

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*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- | | |
|---------------------------------------|---|
| First-aid measures general | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation | : Remove person to fresh air and keep at rest in a position comfortable for breathing. If symptoms develop obtain medical attention. |
| First-aid measures after skin contact | : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse immediately with plenty of water (for at least 15 minutes). Ensure that folded skin of eyelids is thoroughly washed with water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain immediate medical attention. |
| First-aid measures after ingestion | : Do NOT induce vomiting. Do not give an unconscious person anything to drink. Wash out mouth with water and give 100-200 ml of water to drink. If symptoms develop, obtain medical attention. |

4.2. Most important symptoms and effects (acute and delayed)

- | | |
|-------------------------------------|--|
| Symptoms/effects after inhalation | : At high concentrations, the vapors can be irritating to the respiratory system. |
| Symptoms/effects after skin contact | : Causes skin irritation. May cause an allergic skin reaction. Skin rash/inflammation. |
| Symptoms/effects after eye contact | : Causes serious eye damage. |
| Symptoms/effects after ingestion | : Ingestion may cause irritation of the gastrointestinal tract. |
| Chronic symptoms | : Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs (kidneys) through prolonged or repeated exposure. |

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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|--------------------------------|--|
| Suitable extinguishing media | : Alcohol-resistant foam. Dry powder. Carbon dioxide. Water spray. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

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|--|--|
| Fire hazard | : Flammable liquid and vapor. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. |
| Explosion hazard | : Containers may rupture when heated. |
| Hazardous decomposition products in case of fire | : Carbon dioxide. Carbon monoxide. Chlorine. Hydrocarbons. |

5.3. Special protective equipment and precautions for fire-fighters

- | | |
|--------------------------------|---|
| Firefighting instructions | : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus when in close proximity to fire. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

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|----------------------|---|
| Emergency procedures | : Remove all sources of ignition. Ventilate area. Do not breathe vapors. Do not get in eyes, on skin, or on clothing. Evacuate unnecessary personnel. |
|----------------------|---|

6.1.2. For emergency responders

- | | |
|----------------------|---|
| Protective equipment | : Equip cleanup crew with proper protection. Use chemically protective clothing. |
| Emergency procedures | : Remove ignition sources. Use only non-sparking tools. Take precautionary measures against static discharge. Ventilate area. Do not breathe vapors. Do not get in eyes, on skin, or on clothing. |

6.2. Environmental precautions

Collect spillage. Prevent entry to sewers and public waters. Notify authorities if large amounts of the product enters sewers or public waters.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Use non-sparking tools. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Provide good ventilation in process area to prevent formation of vapor. Do not breathe vapors. Do not get in eyes, on skin, or on clothing.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off immediately all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect material from direct sunlight. Store in original container. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Incompatible materials : Oxidizing agents. Reducing agents. Strong alkalis. Strong acids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-methylpentane-2,4-diol (hexylene glycol) (107-41-5)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Hexylene glycol
ACGIH TWA (ppm)	25 ppm
ACGIH STEL (mg/m ³)	10 mg/m ³
ACGIH STEL (ppm)	50 ppm
Remark (ACGIH)	Eye & URT irr
Regulatory reference	ACGIH 2019
Canada (Ontario) - Occupational Exposure Limits	
OEL Ceiling (ppm)	25 ppm
Regulatory reference	Ontario Occupational Exposure Limits under Regulation 833
Canada (Saskatchewan) - Occupational Exposure Limits	
OEL TWA (ppm)	25 ppm
OEL STEL (ppm)	25 ppm
Isopropanol (67-63-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Propanol
ACGIH TWA (ppm)	200 ppm
ACGIH STEL (ppm)	400 ppm
Remark (ACGIH)	Eye & URT irr; CNS impair
Regulatory reference	ACGIH 2019
USA - ACGIH - Biological Exposure Indices	
Local name	2-PROPANOL
Biological Exposure Indices (BEI)	40 mg/l Parameter: Acetone - Medium: urine - Sampling time: End of shift at end of workweek - Notations: B, Ns
Regulatory reference	ACGIH 2019
USA - OSHA - Occupational Exposure Limits	
Local name	Isopropyl alcohol
OSHA PEL (TWA) (mg/m ³)	980 mg/m ³

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OSHA PEL (TWA) (ppm)	400 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Canada (Alberta) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
Notations and remarks	Eye & URT irr; CNS impair
Canada (British Columbia) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
Notations and remarks	Eye & URT irr; CNS impair
Canada (Manitoba) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
Notations and remarks	Eye & URT irr; CNS impair
Canada (New Brunswick) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
Notations and remarks	Eye & URT irr; CNS impair
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
Notations and remarks	Eye & URT irr; CNS impair
Canada (Nova Scotia) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
Notations and remarks	Eye & URT irr; CNS impair
Canada (Nunavut) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
Notations and remarks	Eye & URT irr; CNS impair
Canada (Northwest Territories) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
Notations and remarks	Eye & URT irr; CNS impair
Canada (Ontario) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
Regulatory reference	Ontario Occupational Exposure Limits under Regulation 833
Canada (Prince Edward Island) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
Notations and remarks	Eye & URT irr; CNS impair
Canada (Saskatchewan) - Occupational Exposure Limits	
OEL TWA (ppm)	200 ppm
OEL STEL (ppm)	400 ppm
2,2',2"-nitrilotriethanol (102-71-6)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Triethanolamine
ACGIH TWA (mg/m ³)	5 mg/m ³
Remark (ACGIH)	Eye & skin irr
Regulatory reference	ACGIH 2019
Canada (Ontario) - Occupational Exposure Limits	
OEL TWA (mg/m ³)	3.1 mg/m ³
OEL TWA (ppm)	0.5 ppm

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Regulatory reference	Ontario Occupational Exposure Limits under Regulation 833
Canada (Saskatchewan) - Occupational Exposure Limits	
OEL TWA (mg/m ³)	5 mg/m ³
OEL STEL (mg/m ³)	10 mg/m ³

8.2. Appropriate engineering controls

- Appropriate engineering controls : Provide good ventilation in process area to prevent formation of vapor. Ensure exposure is below occupational exposure limits (where available). Local exhaust ventilation (LEV) may be required to control inhalation exposure. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear suitable gloves resistant to chemical penetration. Gloves should be removed and replaced if there are any signs of degradation or breakthrough. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazard protection:

Not required for normal conditions of use.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Color	: Amber
Odor	: Alcohol
Odor threshold	: No data available
pH	: 1.5 – 2.5 (Concentrate)
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 100 °C
Flash point	: 41.6 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.092 +/-0.01 (25 °C) (Water = 1)
Solubility	: Water: Miscible
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available

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Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Vapors may form explosive mixture with air.
Oxidizing properties	: Not oxidizing.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7).

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Under fire conditions closed containers may rupture or explode.

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Extremely high or low temperatures. Direct sunlight.

10.5. Incompatible materials

Oxidizing agents. Reducing agents. Strong alkalis. Strong acids.

10.6. Hazardous decomposition products

Fire may produce irritating, corrosive and/or toxic gases. Carbon monoxide. Carbon dioxide. Chlorine. Hydrocarbons.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

2-methylpentane-2,4-diol (hexylene glycol) (107-41-5)	
LD50 oral, rat	> 2000 mg/kg
LD50 dermal, rabbit	> 2000 mg/kg
LC50 inhalation, rat (mg/l)	> 60 ml/m ³ - 8 Hours
Isopropanol (67-63-0)	
LD50 oral, rat	5840 mg/kg
LD50 dermal, rat	16.4 ml/kg
LC50 inhalation, rat (ppm)	> 10000 ppm - 6 Hours
Citric acid (77-92-9)	
LD50 oral, rat	5400 mg/kg
LD50 dermal, rat	> 2000 mg/kg
Biphenyl-2-ol (ortho-phenylphenol) (90-43-7)	
LD50 oral, rat	2733 mg/kg
LD50 dermal, rabbit	> 2000 mg/kg
LC50 inhalation, rat (mg/l)	> 949 mg/m ³ - 1 Hours
Clorofene (ortho-benzyl-para-chlorophenol) (120-32-1)	
LD50 oral, rat	4147 mg/kg (OECD 401 method)
LD50 dermal, rat	> 2000 mg/kg (OECD 402 method)
LC50 inhalation, rat (mg/l)	2.5 mg/l - 4 Hours (OECD 403 method)
2,2',2''-nitrilotriethanol (102-71-6)	
LD50 oral, rat	6400 mg/kg (OECD 401 method)
LD50 dermal, rat	> 2000 mg/kg (OECD 402 method)

Skin corrosion/irritation	: Causes skin irritation. pH: 1.5 – 2.5 (Concentrate)
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Serious eye damage/irritation	: Causes serious eye damage. pH: 1.5 – 2.5 (Concentrate)
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.

Isopropanol (67-63-0)	
IARC group	3 - Not classifiable

Biphenyl-2-ol (ortho-phenylphenol) (90-43-7)	
IARC group	3 - Not classifiable

2,2',2"-nitrioltriethanol (102-71-6)	
IARC group	3 - Not classifiable

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

STOT-single exposure : Not classified

Isopropanol (67-63-0)	
STOT-single exposure	May cause drowsiness or dizziness.

Biphenyl-2-ol (ortho-phenylphenol) (90-43-7)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs (kidneys) through prolonged or repeated exposure.

Clorofene (ortho-benzyl-para-chlorophenol) (120-32-1)	
STOT-repeated exposure	May cause damage to organs (kidneys) through prolonged or repeated exposure.

Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after inhalation	: At high concentrations, the vapors can be irritating to the respiratory system.
Symptoms/effects after skin contact	: Causes skin irritation. May cause an allergic skin reaction. Skin rash/inflammation.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Ingestion may cause irritation of the gastrointestinal tract.
Chronic symptoms	: Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs (kidneys) through prolonged or repeated exposure.

SECTION 12: Ecological information

12.1. Toxicity

2-methylpentane-2,4-diol (hexylene glycol) (107-41-5)	
LC50 fish	10000 mg/l 96 Hours - <i>Lepomis macrochirus</i>
EC50 Daphnia	2700 – 3700 mg/l 48 Hours - <i>Daphnia magna</i>

Isopropanol (67-63-0)	
LC50 fish	9640 mg/l - 96 Hours (<i>Pimephales promelas</i>)
EC50 Daphnia	> 10000 mg/l - 48 Hours (<i>Daphnia magna</i>)
NOEC chronic algae	1800 mg/l - 7 days (<i>Scenedesmus quadricauda</i>)

Citric acid (77-92-9)	
LC50 fish	440 – 760 mg/l 48 Hours - <i>Leuciscus idus melanotus</i>
EC50 Daphnia	1535 mg/l 24 Hours - <i>Daphnia magna</i>

Biphenyl-2-ol (ortho-phenylphenol) (90-43-7)	
LC50 fish	4.5 mg/l - 96 Hours (<i>Danio rerio</i>)
EC50 Daphnia	2.7 mg/l - 48 Hours (<i>Daphnia magna</i> , Mobility)
ErC50 (algae)	3.57 mg/l - 72 Hours (<i>Pseudokirchneriella subcapitata</i> , Growth rate), (OECD 201 method)
NOEC (chronic)	0.009 mg/l - 21 days (<i>Daphnia magna</i> , reproduction), (OECD 211 method)

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Biphenyl-2-ol (ortho-phenylphenol) (90-43-7)	
NOEC chronic fish	0.036 mg/l - 21 days (Pimephales promelas, reproduction)
NOEC chronic algae	0.468 mg/l - 72 Hours (Pseudokirchneriella subcapitata, Growth rate), (OECD 201 method)
Clorofene (ortho-benzyl-para-chlorophenol) (120-32-1)	
LC50 fish	1.5 mg/l - 96 Hours (Danio rerio)
EC50 Daphnia	0.655 mg/l - 48 Hours (Daphnia magna)(OECD 202 method)
EC50 other aquatic organisms 1	0.089 mg/l - 96 Hours (Americamysis bahia)(EPA OPPTS 850.1035)
ErC50 (algae)	0.435 mg/l - 72 Hours (Navicula pelliculosa, Growth rate)(OCSPP 850.4500)
ErC50 (other aquatic plants)	0.155 mg/l - 96 Hours (Skeletonema costatum, Growth rate)((OECD 201 method)
NOEC chronic fish	< 0.0095 mg/l - 30 days (Danio rerio) (OECD 210 method)
NOEC chronic crustacea	0.0067 mg/l - 21 days (Daphnia magna, reproduction)
2,2',2"-nitritotriethanol (102-71-6)	
LC50 fish	11800 mg/l - 96 Hours (Pimephales promelas)(APHA)
EC50 Daphnia	609.88 mg/l - 96 Hours (Ceriodaphnia dubia)(ASTM E1192)
NOEC (acute)	16 mg/l 21 days - Daphnia magna
NOEC chronic crustacea	16 mg/l - 21 days (Daphnia magna)

12.2. Persistence and degradability

DECON-CYCLE®. Also known as: DECON-CYCLE® II	
Persistence and degradability	Readily biodegradable.
Biodegradation	74 % - 28 days
Isopropanol (67-63-0)	
Persistence and degradability	Expected to be readily biodegradable.
Biphenyl-2-ol (ortho-phenylphenol) (90-43-7)	
Persistence and degradability	Readily biodegradable.
Biodegradation	70.8 – 75.7 % - 28 days (OECD 301B method)
Clorofene (ortho-benzyl-para-chlorophenol) (120-32-1)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable.

12.3. Bioaccumulative potential

DECON-CYCLE®. Also known as: DECON-CYCLE® II	
Bioaccumulative potential	No information available.
Isopropanol (67-63-0)	
Bioconcentration factor (BCF REACH)	3
Log Pow	0.05
Biphenyl-2-ol (ortho-phenylphenol) (90-43-7)	
BCF fish 1	21.7 (Danio rerio)
Log Pow	3.18 (22.5 °C)(OECD 107 method)
Bioaccumulative potential	Not expected to bioaccumulate.
Clorofene (ortho-benzyl-para-chlorophenol) (120-32-1)	
Log Pow	4.276 (25 °C)
Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

DECON-CYCLE®. Also known as: DECON-CYCLE® II	
Ecology - soil	Miscible with water.
Biphenyl-2-ol (ortho-phenylphenol) (90-43-7)	
Partition coefficient n-octanol/water (Log Koc)	2.4 – 2.6 (20 °C)

12.5. Other adverse effects

Other information : Avoid release to the environment.

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SECTION 13: Disposal considerations

13.1. Disposal methods

- Waste disposal recommendations : Do not discharge into drains or the environment. Dispose in a safe manner in accordance with local/national regulations.
- Additional information : Handle empty containers with care because residual vapors are flammable. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.
- Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

- Transport document description : UN2924 Flammable liquids, corrosive, n.o.s. (Isopropanol ; Citric acid), 3 (8), III
- UN-No.(DOT) : UN2924
- Proper Shipping Name (DOT) : Flammable liquids, corrosive, n.o.s. (Isopropanol ; Citric acid)
- Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
- Packing group (DOT) : III - Minor Danger
- Subsidiary risk (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
- Hazard labels (DOT) : 3 - Flammable liquid
8 - Corrosive



- Dangerous for the environment : Yes
- Marine pollutant : Yes



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
- DOT Packaging Bulk (49 CFR 173.xxx) : 242
- DOT Special Provisions (49 CFR 172.102) : B1, IB3, T7, TP1, TP28
- DOT Packaging Exceptions (49 CFR 173.xxx) : 150
- DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
- DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L
- DOT Vessel Stowage Location : A
- DOT Vessel Stowage Other : 40
- Emergency Response Guide (ERG) Number : 132
- Other information : No supplementary information available.
- Special transport precautions : DOT: §172.322(d): Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg)
- TDG 4.22: Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg)
- IMDG 2.10.2.7: Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg).

Transportation of Dangerous Goods

- Transport document description : UN2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isopropanol ; Citric acid), 3 (8), III
- UN-No. (TDG) : UN2924
- Proper Shipping Name (Transportation of Dangerous Goods) : FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isopropanol ; Citric acid)

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TDG Primary Hazard Classes	: 3 - Class 3 - Flammable Liquids
Packing group	: III - Minor Danger
TDG Subsidiary Classes	: 8
TDG Special Provisions	: 16
Explosive Limit and Limited Quantity Index	: 5 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: 5 L

Transport by sea

Transport document description (IMDG)	: UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isopropanol ; Citric acid), 3 (8), III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
UN-No. (IMDG)	: 2924
Proper Shipping Name (IMDG)	: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isopropanol ; Citric acid)
Class (IMDG)	: 3 - Flammable liquids
Packing group (IMDG)	: III - substances presenting low danger
Subsidiary risks (IMDG)	: 8 - Corrosive substances
Marine pollutant	: Yes



Air transport

Transport document description (IATA)	: UN 2924 Flammable liquid, corrosive, n.o.s. (Isopropanol ; Citric acid), 3 (8), III, ENVIRONMENTALLY HAZARDOUS
UN-No. (IATA)	: 2924
Proper Shipping Name (IATA)	: Flammable liquid, corrosive, n.o.s. (Isopropanol ; Citric acid)
Class (IATA)	: 3 - Flammable Liquids
Packing group (IATA)	: III - Minor Danger
Subsidiary hazards (IATA)	: 8 - Corrosive substances

SECTION 15: Regulatory information

15.1. US Federal regulations

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SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Skin corrosion or Irritation Health hazard - Serious eye damage or eye irritation Health hazard - Respiratory or skin sensitization Health hazard - Carcinogenicity Health hazard - Reproductive toxicity Health hazard - Specific target organ toxicity (single or repeated exposure)

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Isopropanol	CAS-No. 67-63-0	7 - < 13%
Biphenyl-2-ol (ortho-phenylphenol)	CAS-No. 90-43-7	5 - < 10%

2-methylpentane-2,4-diol (hexylene glycol) (107-41-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Isopropanol (67-63-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Citric acid (77-92-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Biphenyl-2-ol (ortho-phenylphenol) (90-43-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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Clorofene (ortho-benzyl-para-chlorophenol) (120-32-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

2,2',2"-nitrioltriethanol (102-71-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Benzenesulfonic acid, C10-16-alkyl derivs. (68584-22-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Isopropanol (67-63-0)

Listed on the Canadian DSL (Domestic Substances List)

Biphenyl-2-ol (ortho-phenylphenol) (90-43-7)

Listed on the Canadian DSL (Domestic Substances List)

Benzenesulfonic acid, C10-16-alkyl derivs. (68584-22-5)

Listed on the Canadian DSL (Domestic Substances List)

National regulations

No additional information available

15.3. US State regulations

⚠ WARNING: This product can expose you to Biphenyl-2-ol (ortho-phenylphenol), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
2-methylpentane-2,4-diol (hexylene glycol)(107-41-5)	U.S. - New Jersey - Right to Know Hazardous Substance List
Isopropanol(67-63-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Biphenyl-2-ol (ortho-phenylphenol)(90-43-7)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
2,2',2"-nitrioltriethanol(102-71-6)	U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Revision date : 03/09/2020
Data sources : US OSHA HazCom (GHS) 25 May 2012.
Other information : This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law (FIFRA). These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Full text of H-phrases:

H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

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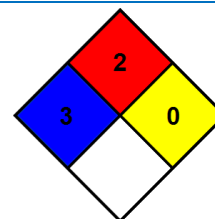
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H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Abbreviations and acronyms:

	ATE (Acute Toxicity Estimate)
	CAS (Chemical Abstracts Service) number
	DNEL (Derived No Effect Level)
	EC50 (Effective Concentration 50%)
	IARC (International Agency for Research on Cancer)
	IATA (International Air Transport Association)
	IMDG (International Maritime Dangerous Goods Code)
	IMO (International Maritime Organisation)
	LC50 (Lethal Concentration 50%)
	LD50 (Lethal Dose 50%)
	OECD (Organisation for Economic Co-operation and Development)
	PBT (Persistent, Bioaccumulative and Toxic)
	PNEC (Predicted No Effect Concentration)
	STEL (Short Term Exposure Limit)
	TSCA (Toxic Substances Control Act) (US)
	TWA (Time Weighted Average)
	UNxxxx (Number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods)
	vPvB (very Persistent and very Bioaccumulative)

- NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.
- NFPA fire hazard : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



- Hazard Rating
- Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
- Flammability : 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
- Personal protection : G
G - Safety glasses, Gloves, Vapor respirator

Indication of changes:

Section	Changed item	Change	Comments
2	Hazards identification	Modified	
3	Composition/Information on ingredients	Modified	
4	First aid measures	Modified	
11	Toxicological information	Modified	
12.	Ecological information	Modified	
14	Transport information	Modified	

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15	Regulatory information	Modified	
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SDS US (GHS HazCom 2012)

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