SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : DEC-CYCLE®. Also known as: DEC-CYCLE® II

Product code : SDS DCY-98-01-EU

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Disinfectant
Product for industrial use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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

Veltek Associates Inc., Branch Office Europe
PO Box 1062, 8200 BB Lelystad, Netherlands
Customer service (USA): +800 00888700

India distributor:
M/s. Shah Brothers
C-32, Shri Ram Indl. Estate
G.D. Ambekar Marg
Wadala, Mumbai- 400031 India
Telephone: +91 22-43560400

1.4. Emergency telephone number

Emergency number : For Spill/Exposure Emergency Response Service in Europe in English (and 23 other European languages) (24 hours): +44 (0)1235 239 670
Ireland Poison Centre: +353 (0)1 809 2166 (Available to the public 08.00–22.00) (Ireland only)
For Middle East/Africa (24 hours): +44 (0)1235 239 671
For Hindi (24 hours): 000 800 100 7479.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 3	H226
Skin Corr. 1C	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Carc. 2	H351
Repr. 2	H361f
Aquatic Chronic 1	H410

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS02 GHS05 GHS07 GHS08 GHS09

Signal word (CLP)	: Danger
Hazardous ingredients	: Biphenyl-2-ol; Clorofene; Dodecylbenzenesulfonic acid
Hazard statements (CLP)	: H226 - Flammable liquid and vapour. H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H351 - Suspected of causing cancer. H361f - Suspected of damaging fertility. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P201 - Obtain special instructions before use. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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 or shower. 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.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-methylpentane-2,4-diol	(CAS-No.) 107-41-5 (EC No.) 203-489-0 (EC index No.) 603-053-00-3	10 - < 30	Eye Irrit. 2, H319 Skin Irrit. 2, H315
Citric acid	(CAS-No.) 77-92-9 (EC No.) 201-069-1	10 - < 30	Eye Irrit. 2, H319
Isopropanol	(CAS-No.) 67-63-0 (EC No.) 200-661-7 (EC index No.) 603-117-00-0	7 - < 13	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Biphenyl-2-ol	(CAS-No.) 90-43-7 (EC No.) 201-993-5 (EC index No.) 604-020-00-6	5 - < 10	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Clorofene	(CAS-No.) 120-32-1 (EC No.) 204-385-8 (EC index No.) 604-093-00-4	5 - < 10	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 2, H351 Repr. 2, H361f STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 (M=100)
Dodecylbenzenesulfonic acid	(CAS-No.) 27176-87-0 (EC No.) 248-289-4	1 - < 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318
2,2',2''-nitrilotriethanol	(CAS-No.) 102-71-6 (EC No.) 203-049-8	1 - < 5	Not classified
Benzenesulfonic acid, C10-16-alkyl derivs.	(CAS-No.) 68584-22-5 (EC No.) 271-528-9	1 - < 5	Eye Irrit. 2, H319

Full text of 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 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. Obtain immediate medical 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. Obtain immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : At high concentrations, the vapours can be irritating to the respiratory system.

Symptoms/effects after skin contact : Causes burns. May cause an allergic skin reaction. Skin rash/inflammation.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Severe irritation or burns to the mouth, throat, oesophagus, and stomach.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours.

Explosion hazard : Containers may rupture when heated.

Hazardous decomposition products in case of fire : Carbon dioxide. Carbon monoxide. Chlorine. Hydrocarbons.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Avoid fire-fighting water entering the 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

Emergency procedures : Remove all sources of ignition. Ventilate area. Do not breathe vapours. 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 vapours. 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.

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 vapour. Do not breathe vapours. 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 : Oxidising agents. Reducing agents. Strong alkalis. Strong acids.

7.3. Specific end use(s)

Product for industrial use only. Disinfectant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-methylpentane-2,4-diol (107-41-5)	
Ireland - Occupational Exposure Limits	
Local name	Hexylene glycol
OEL (15 min ref) (mg/m3)	125 mg/m³
OEL (15 min ref) (ppm)	25 ppm
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
United Kingdom - Occupational Exposure Limits	
Local name	2-Methylpentane-2,4-diol
WEL TWA (mg/m³)	123 mg/m³
WEL TWA (ppm)	25 ppm
WEL STEL (mg/m³)	123 mg/m³
WEL STEL (ppm)	25 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

Isopropanol (67-63-0)	
Ireland - Occupational Exposure Limits	
Local name	Isopropyl alcohol
OEL (8 hours ref) (ppm)	200 ppm
OEL (15 min ref) (ppm)	400 ppm
Notes (IE)	Sk
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
United Kingdom - Occupational Exposure Limits	
Local name	Propan-2-ol
WEL TWA (mg/m³)	999 mg/m³
WEL TWA (ppm)	400 ppm
WEL STEL (mg/m³)	1250 mg/m³
WEL STEL (ppm)	500 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

2,2',2''-nitrilotriethanol (102-71-6)	
Ireland - Occupational Exposure Limits	
Local name	Triethanolamine
OEL (8 hours ref) (mg/m³)	5 mg/m³
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018

8.2. Exposure controls

Appropriate engineering controls:

Provide adequate ventilation, including appropriate local extraction, to ensure that occupational exposure limits are not exceeded. Provide good ventilation in process area to prevent formation of vapour. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:
Wear suitable gloves resistant to chemical penetration. Standard EN 374 - Protective gloves against chemicals. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves should be removed and replaced if there are any signs of degradation or breakthrough.

Eye protection:
Chemical goggles or safety glasses. Standard EN 166 - Personal eye-protection.

Skin and body protection:
Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact

Respiratory protection:
In case of inadequate ventilation wear respiratory protection. EN 405

Thermal hazard protection:

Not required for normal conditions of use.

Environmental exposure controls:

Avoid release to the environment.

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.
Colour	: Amber.
Odour	: Alcohol.
Odour threshold	: No data available
pH	: 1.5 - 2.5 Concentrate
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 100 °C
Flash point	: 41.6 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour 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
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Vapours may form explosive mixture with air.
Oxidising properties	: Not oxidising.
Explosive limits	: No data available

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
Oxidising 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
Additional information : Based on available data, the classification criteria are not met

2-methylpentane-2,4-diol (107-41-5)	
LD50 oral, rat	> 2000 mg/kg
LD50 dermal, rabbit	> 2000 mg/kg
LC50 inhalation, rat (mg/l)	> 60 ml/m³ - 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 (90-43-7)	
LD50 oral, rat	2733 mg/kg
LD50 dermal, rabbit	> 2000 mg/kg
LC50 inhalation, rat (mg/l)	> 949 mg/m³ - 1 Hours

Clorofene (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)

Dodecylbenzenesulfonic acid (27176-87-0)	
LD50 oral, rat	650 mg/kg
LD50 dermal, rat	> 2000 mg/kg (OECD 402 method)
LC50 inhalation, rat (mg/l)	310 mg/m³ - 4 Hours

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 severe skin burns and eye damage.
pH: 1.5 - 2.5 Concentrate
Serious eye damage/irritation : Causes serious eye damage.
pH: 1.5 - 2.5 Concentrate
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Additional information : Based on available data, the classification criteria are not met
Carcinogenicity : Suspected of causing cancer.

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

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

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

Reproductive toxicity : Suspected of damaging fertility.

STOT-single exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Additional information : Based on available data, the classification criteria are not met

Potential adverse human health effects and symptoms : Causes severe skin burns and eye damage. May cause an allergic skin reaction. Skin rash/inflammation. At high concentrations, the vapours can be irritating to the respiratory system. Severe irritation or burns to the mouth, throat, oesophagus, and stomach.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

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

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

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

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

Dodecylbenzenesulfonic acid (27176-87-0)	
LC50 fish	8.929 mg/l - 96 Hours (freshwater fish)(QSAR, EPI Suite v4.1/ECOSAR v1.00)
LC50 fish 2	10.046 mg/l - 96 Hours (marine water fish)(QSAR, EPI Suite v4.1/ECOSAR v1.00)
EC50 Daphnia	3.5 mg/l - 48 Hours (Daphnia magna)
EC50 Daphnia 2	4.58 mg/l - 48 Hours (Tisbe bulbisetosa)
EC50 72h algae (1)	21 mg/l - 72 Hours (Pseudokirchneriella subcapitata, Biomass)(OECD 201 method)
EC50 96h algae (1)	29 mg/l - 96 Hours (Selenastrum capricornutum)
ErC50 (algae)	65.4 mg/l - 72 Hours (Pseudokirchneriella subcapitata, Growth rate)(OECD 201 method)
NOEC chronic fish	1.21 mg/l - 30 days (freshwater fish)(QSAR, EPI Suite v4.1/ECOSAR v1.00)

2,2',2''-nitrilotriethanol (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)
EC50 72h algae (1)	216 mg/l - 72 Hours (Desmodesmus subspicatus, Growth rate)(DIN 38412, 9)
NOEC (acute)	16 mg/l 21 days - Daphnia magna
NOEC chronic crustacea	16 mg/l - 21 days (Daphnia magna)

12.2. Persistence and degradability

DEC-CYCLE®. Also known as: DEC-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 (90-43-7)	
Persistence and degradability	Readily biodegradable.
Biodegradation	70.8 - 75.7 % - 28 days (OECD 301B method)

Clorofene (120-32-1)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable.

Dodecylbenzenesulfonic acid (27176-87-0)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

DEC-CYCLE®. Also known as: DEC-CYCLE® II	
Bioaccumulative potential	No information available.

Isopropanol (67-63-0)	
Bioconcentration factor (BCF REACH)	3
Log Pow	0.05

Biphenyl-2-ol (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 (120-32-1)	
Log Pow	4.276 (25 °C)
Bioaccumulative potential	Not expected to bioaccumulate.

Dodecylbenzenesulfonic acid (27176-87-0)	
Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

DEC-CYCLE®. Also known as: DEC-CYCLE® II	
Ecology - soil	Miscible with water.

Biphenyl-2-ol (90-43-7)	
Log Koc	2.4 - 2.6 (20 °C)

12.5. Results of PBT and vPvB assessment

DEC-CYCLE®. Also known as: DEC-CYCLE® II
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of this material and its container at hazardous or special waste collection point.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapours 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. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number

UN-No. (ADR) : UN 2924

UN-No. (IMDG) : UN 2924

UN-No. (IATA) : UN 2924

14.2. UN proper shipping name

Proper Shipping Name : FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isopropanol ; Citric acid)

Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isopropanol ; Citric acid)

Proper Shipping Name (IATA) : Flammable liquid, corrosive, n.o.s. (Isopropanol ; Citric acid)

Transport document description (ADR) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isopropanol ; Citric acid), 3 (8), III, (D/E), ENVIRONMENTALLY HAZARDOUS

Transport document description (IMDG) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isopropanol ; Citric acid), 3 (8), III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS

Transport document description (IATA) : UN 2924 Flammable liquid, corrosive, n.o.s. (Isopropanol ; Citric acid), 3 (8), III, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3 (8)

Hazard labels : 3, 8

:

IMDG

Transport hazard class(es) (IMDG) : 3 (8)

Danger labels (IMDG) : 3, 8

:

IATA

Transport hazard class(es) (IATA) : 3 (8)

Danger labels (IATA) : 3, 8

:

14.4. Packing group

Packing group : III

Packing group (IMDG) : III

Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

14.6. Special precautions for user

Special transport precautions : No special precautions required

Overland transport

Tunnel restriction code (ADR) : D/E

Transport by sea

No data available

Air transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Authorisations and/or restrictions on use (Annex XVII):		
Reference code	Applicable on	Entry title or description
3.	DEC-CYCLE®. Also known as: DEC-CYCLE® II ; 2-methylpentane-2,4-diol ; Isopropanol ; Dodecylbenzenesulfonic acid ; Benzenesulfonic acid, C10-16-alkyl derivs.	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008
3(a)	DEC-CYCLE®. Also known as: DEC-CYCLE® II ; Isopropanol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	DEC-CYCLE®. Also known as: DEC-CYCLE® II ; 2-methylpentane-2,4-diol ; Isopropanol ; Dodecylbenzenesulfonic acid ; Benzenesulfonic acid, C10-16-alkyl derivs.	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

3(c)	DEC-CYCLE®. Also known as: DEC-CYCLE® II	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	DEC-CYCLE®. Also known as: DEC-CYCLE® II ; Isopropanol	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
3	Composition/information on ingredients	Modified	

Abbreviations and acronyms:

	ADR (Accord européen relatif au transport international des marchandises Dangereuses par Route)
	ATE (Acute Toxicity Estimate)
	CAS (Chemical Abstracts Service) number
	CLP (Classification, Labeling and Packaging)
	DNEL (Derived No Effect Level)
	EC (European Community)
	EC50 (Effective Concentration 50%)
	EN (European Norm)
	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%)
	MAC (Maximal Allowed Concentration)
	OECD (Organisation for Economic Co-operation and Development)
	PBT (Persistent, Bioaccumulative and Toxic)
	PNEC (Predicted No Effect Concentration)
	REACH (Registration, Evaluation and Authorisation of CHemicals)
	RID (Règlement concernant le transport international ferroviaire de marchandises)
	STEL (Short Term Exposure Limit)
	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)

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
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.
H351	Suspected of causing cancer.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SDS EU (REACH Annex II)