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

1.1. Product identifier

Product form	:	Mixture
Product name	:	DEC-PHENE® PLUS
Product code	:	SDS VEL-142-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 Concentrate

1.2.2. Uses advised against

Restrictions on use	:	Product is concentrated, not intended for direct application to surfaces.

1.3. Details of the supplier of the safety data sheet

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

India distributor:
Tansha
A-17, Wadala Shriram, Industrial Estate
G. D. Ambekar Marg
Wadala, Mumbai- 400 031 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 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. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Carc. 2	H351
Repr. 2	H361
STOT RE 2	H373
Aquatic Chronic 1	H410

Full text of hazard classes, H- and EUH-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

Contains : Clorofene, Sulfuric acid, mono-C10-16-alkyl esters, sodium salts, Sodium hydroxide, Biphenyl-2-ol

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.
H361 - Suspected of damaging fertility..
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
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.
P403+P235 - Store in a well-ventilated place. Keep cool.

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
Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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]
Clorofene	CAS-No.: 120-32-1 EC No.: 204-385-8 EC index No.: 604-093-00-4	10 - 15	Acute Tox. 4 (Inhalation), H332 (ATE=2.5 mg/l/4h) 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 (M=1) Aquatic Chronic 1, H410 (M=100)

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Biphenyl-2-ol	CAS-No.: 90-43-7 EC No.: 201-993-5 EC index No.: 604-020-00-6	10 - 15	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	CAS-No.: 68585-47-7 EC No.: 271-557-7	5 - 10	Skin Irrit. 2, H315 Eye Dam. 1, H318
Isopropanol	CAS-No.: 67-63-0 EC No.: 200-661-7 EC index No.: 603-117-00-0	1 - 5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
tetrasodium ethylene diamine tetraacetate	CAS-No.: 64-02-8 EC No.: 200-573-9 EC index No.: 607-428-00-2	1 - 5	Acute Tox. 4 (Oral), H302 (ATE=1780 mg/kg) Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Eye Dam. 1, H318 STOT RE 2, H373
Sodium hydroxide	CAS-No.: 1310-73-2 EC No.: 215-185-5 EC index No.: 011-002-00-6	1 - 5	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318
Ethylene glycol substance with a Community workplace exposure limit	CAS-No.: 107-21-1 EC No.: 203-473-3 EC index No.: 603-027-00-1 REACH-no: 01-2119456816-28-XXXX	1 - 5	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg) STOT RE 2, H373
Sodium xylenesulphonate	CAS-No.: 1300-72-7 EC No.: 215-090-9	1 - 5	Eye Irrit. 2, H319
Sodium nitrite	CAS-No.: 7632-00-0 EC No.: 231-555-9 EC index No.: 007-010-00-4	0.1 - 1	Ox. Sol. 2, H272 Acute Tox. 3 (Oral), H301 (ATE=180 mg/kg) Eye Irrit. 2, H319 Aquatic Acute 1, H400
Benzenesulfonic acid, C10-16-alkyl derivs.	CAS-No.: 68584-22-5 EC No.: 271-528-9	0.1 - 1	Eye Irrit. 2, H319

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits**
Sodium hydroxide	CAS-No.: 1310-73-2 EC No.: 215-185-5 EC index No.: 011-002-00-6	(0.5 ≤C < 2) Eye Irrit. 2, H319 (0.5 ≤C < 2) Skin Irrit. 2, H315 (2 ≤C < 5) Skin Corr. 1B, H314 (5 ≤C ≤ 100) Skin Corr. 1A, H314

Full text of H- and EUH-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 : Immediately remove contaminated clothing or footwear. Rinse skin with plenty of water or shower. 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. Obtain immediate medical attention.

First-aid measures after ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. 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 : Irritation of the respiratory tract.

Symptoms/effects after skin contact : Causes severe burns. May cause an allergic skin reaction.

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

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

Chronic symptoms : Suspected of causing cancer. Suspected of damaging fertility. May cause damage to organs (kidneys) through prolonged or repeated exposure.

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

Treat symptomatically. Doctor: gastric lavage is not recommended.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Alcohol-resistant foam. Carbon dioxide. Dry powder.

Unsuitable extinguishing media : Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

Hazardous decomposition products in case of fire : Fire may produce irritating, corrosive and/or toxic gases. Phenolic compounds. Carbon monoxide. Carbon dioxide. Chlorine. Sulphur oxides.

5.3. Advice for firefighters

Firefighting instructions : Keep upwind. Exercise caution when fighting any chemical fire. On heating, there is a risk of bursting due to internal pressure build-up. Cool closed containers that are near the source of the fire. Do not allow run-off from fire fighting to enter drains or water courses.

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 : 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 : Ventilate area. Do not breathe vapours. Do not get in eyes, on skin, or on clothing.

6.2. Environmental precautions

Collect spillage. Avoid release to the environment. 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 : Absorb spillage to prevent material damage. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Store in corrosive resistant container with a resistant inner liner.

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 : Do not handle until all safety precautions have been read and understood. 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 : Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Store in corrosive resistant container with a resistant inner liner. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Incompatible materials : Strong oxidising agents.

7.3. Specific end use(s)

Disinfectant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Isopropanol (67-63-0)	
Ireland - Occupational Exposure Limits	
Local name	Isopropyl alcohol [Propan-2-ol]
OEL TWA [2]	200 ppm
OEL STEL [ppm]	400 ppm
Remark	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body)
Regulatory reference	Chemical Agents Code of Practice 2021
Ireland - Biological limit values	
Local name	2-Propanol
BLV	40 mg/l Parameter: acetone - Medium: urine - Sampling time: End of shift at end of workweek - Notations: B (Background), Ns (Non-specific)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
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 (Fourth edition, 2020). HSE

Sodium hydroxide (1310-73-2)	
Ireland - Occupational Exposure Limits	
Local name	Sodium hydroxide
OEL (15 min ref) (mg/m3)	2 mg/m³
Regulatory reference	Chemical Agents Code of Practice 2021
United Kingdom - Occupational Exposure Limits	
Local name	Sodium hydroxide
WEL STEL (mg/m³)	2 mg/m³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

Ethylene glycol (107-21-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylene glycol
IOELV TWA (mg/m³)	52 mg/m³
IOELV TWA (ppm)	20 ppm
IOELV STEL (mg/m³)	104 mg/m³
IOELV STEL (ppm)	40 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Ethane-1,2-diol, particulate
OEL (8 hours ref) (mg/m³)	10 mg/m³ 52 mg/m³
OEL TWA [2]	20 ppm
OEL (15 min ref) (mg/m3)	104 mg/m³
OEL STEL [ppm]	40 ppm
Remark	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2021
United Kingdom - Occupational Exposure Limits	
Local name	Ethane-1,2-diol
WEL TWA (mg/m³)	10 mg/m³ particulate 52 mg/m³ vapour
WEL TWA (ppm)	20 ppm vapour
WEL STEL (mg/m³)	104 mg/m³ vapour
WEL STEL (ppm)	40 ppm vapour
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Provide good ventilation in process area to prevent formation of vapour. Ensure exposure is below occupational exposure limits (where available). Emergency eye wash stations and safety showers should be available in the immediate vicinity of any potential exposure.

8.2.2. Personal protection equipment

Personal protective equipment:
Avoid all unnecessary exposure. Wear suitable protective clothing.

8.2.2.1. Eye and face protection

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

8.2.2.2. Skin protection

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

Hand protection:
Wear chemically resistant protective gloves. 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.

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment.

8.2.2.4. Thermal hazards

Thermal hazard protection:
Not required for normal conditions of use.

8.2.3. Environmental exposure controls

Environmental exposure controls:
Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Other information:
Do not eat, drink or smoke during use. Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Amber.
Appearance	:	Clear liquid.
Odour	:	Slight. Phenol.
Odour threshold	:	Not available
Melting point	:	Not applicable.
Freezing point	:	Not available
Boiling point	:	100 °C
Flammability (solid, gas)	:	Flammable liquid and vapour.
Explosive properties	:	Not explosive.
Oxidising properties	:	Not oxidising.

Explosive limits	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	56.7 °C
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	11.75 – 13 (Concentrate)
Viscosity, kinematic	:	Not available
Solubility	:	Soluble in water. Water: completely soluble
Log Kow	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50 °C	:	Not available
Density	:	Not available
Relative density	:	1.095 – 1.112 (20 °C)(Water = 1)
Relative vapour density at 20 °C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

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

Flammable liquid and vapour.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong oxidising agents.

10.6. Hazardous decomposition products

Fire may produce irritating, corrosive and/or toxic gases. Carbon monoxide. Carbon dioxide. Phenolic compounds. Chlorine. Sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

DEC-PHENE® PLUS	
LD50 oral, rat	4228 mg/kg (Rat)

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

Clorofene (120-32-1)	
LD50 oral, rat	4147 mg/kg
LD50 dermal, rat	> 2000 mg/kg
LC50 inhalation, rat (mg/l)	2.5 mg/l - 4 Hours

tetrasodium ethylene diamine tetraacetate (64-02-8)	
LD50 oral, rat	1780 – 2000 mg/kg

Sodium nitrite (7632-00-0)	
LD50 oral, rat	180 mg/kg

Ethylene glycol (107-21-1)	
LD50 oral, rat	7712 mg/kg
LD50 dermal	> 3500 mg/kg (mouse)
LC50 inhalation, rat (mg/l)	> 2.5 mg/l - 6 Hours (mist)

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

Skin corrosion/irritation : Causes severe skin burns.
pH: 11.75 – 13 (Concentrate)

Serious eye damage/irritation : Causes serious eye damage.
pH: 11.75 – 13 (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

Reproductive toxicity : Suspected of damaging fertility..

STOT-single exposure : Not classified

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

Biphenyl-2-ol (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 (120-32-1)	
STOT-repeated exposure	May cause damage to organs (kidneys) through prolonged or repeated exposure.

tetrasodium ethylene diamine tetraacetate (64-02-8)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Ethylene glycol (107-21-1)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified
Additional information : Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms : Causes severe skin burns and eye damage,May cause an allergic skin reaction,At high concentrations, the vapours can be irritating to the respiratory system,Severe irritation or burns to the mouth, throat, oesophagus, and stomach,May be harmful if swallowed,Suspected of causing cancer,Suspected of damaging fertility,May cause damage to organs (kidneys) through prolonged or repeated exposure.

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.

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)

Clorofene (120-32-1)	
LC50 fish	1.5 mg/l - 96 Hours (Danio rerio)
LC50 fish 2	0.33 mg/l - 96 Hours (Lepomis macrochirus)
EC50 Daphnia	0.655 mg/l - 48 Hours (Daphnia magna)
EC50 - Crustacea [2]	0.286 mg/l - 48 Hours (Crassostrea virginica)
EC50 72h - Algae [1]	0.435 mg/l - 72 Hours (Navicula pelliculosa)
NOEC (chronic)	0.0067 mg/l - 21 days (Daphna magna, reproduction)
NOEC chronic fish	< 0.0095 mg/l - 30 days (Danio rerio)

Sodium hydroxide (1310-73-2)	
LC50 fish	35 – 189 mg/l
EC50 Daphnia	40.4 mg/l - 48 Hours (Ceriodaphnia sp.)

Sodium nitrite (7632-00-0)	
LC50 fish	0.54 – 26.3 mg/l - 96 Hours (Oncorhynchus mykiss)
LC50 other aquatic organisms	4.93 mg/l - 96 Hours (Cherax quadricarinatus)
EC50 Daphnia	15.4 mg/l - 48 Hours (Daphnia magna, Mobility), (OECD 202 method)

Sodium nitrite (7632-00-0)	
ErC50 algae	> 100 mg/l - 72 Hours (Desmodesmus subspicatus), (OECD 201 method)
NOEC (chronic)	2 mg/l - 80 days (Penaeus monodon)
NOEC chronic fish	1.05 mg/l - 29 days (Cyprinus carpio), (OECD 210 method)
NOEC chronic crustacea	9.86 mg/l - 80 days (Penaeus monodon, bodyweight)
NOEC, algae	> 100 mg/l (72 Hours, Desmodesmus subspicatus, Growth rate (OECD 201 method))

Ethylene glycol (107-21-1)	
LC50 fish	> 72860 mg/l - 96 Hours (Pimephales promelas)(EPA 600/4-90/027)
EC50 Daphnia	> 100 mg/l - 48 Hours (Daphnia magna)(OECD 202 method)
EC50 72h - Algae [1]	> 100 mg/l - 72 Hours (Scenedesmus quadricauda)

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)

12.2. Persistence and degradability

DEC-PHENE® PLUS	
Persistence and degradability	No information available.

Isopropanol (67-63-0)	
Persistence and degradability	Readily biodegradable.
Biochemical oxygen demand (BOD)	1.19 g O2/g substance - 5 days (Test method EU C.5)
Chemical oxygen demand (COD)	2.23 g O2/g substance (Test method EU C.6)
Biodegradation	53 % - 5 days

Clorofene (120-32-1)	
Persistence and degradability	Inherently biodegradable.

tetrasodium ethylene diamine tetraacetate (64-02-8)	
Persistence and degradability	Not readily biodegradable.

Ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable.
Biodegradation	90 – 100 % - 10 days (OECD 301A method)

Biphenyl-2-ol (90-43-7)	
Persistence and degradability	Readily biodegradable.
Biodegradation	70.8 – 75.7 % - 28 days (OECD 301B method)

12.3. Bioaccumulative potential

DEC-PHENE® PLUS	
Bioaccumulative potential	No information available.
Isopropanol (67-63-0)	
Log Pow	0.05 (25°C)
Bioaccumulative potential	Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Clorofene (120-32-1)	
Log Pow	4.276 (25 °C)
tetrasodium ethylene diamine tetraacetate (64-02-8)	
BCF - Fish [1]	1.8 l/kg
Log Pow	-13.17 (calculated value)
Bioaccumulative potential	Not expected to bioaccumulate.
Ethylene glycol (107-21-1)	
Log Pow	-1.36 (25 °C)
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.

12.4. Mobility in soil

DEC-PHENE® PLUS	
Ecology - soil	Miscible with water.
Isopropanol (67-63-0)	
Ecology - soil	Miscible with water.
Clorofene (120-32-1)	
Ecology - soil	Moderately soluble in water.
Sodium nitrite (7632-00-0)	
Ecology - soil	Soluble in water.
Ethylene glycol (107-21-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (QSAR)
Biphenyl-2-ol (90-43-7)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.4 – 2.6 (20 °C)

12.5. Results of PBT and vPvB assessment

DEC-PHENE® PLUS
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. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID 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.
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isopropanol, Sodium hydroxide)
Proper Shipping Name (IATA) : Flammable liquid, corrosive, n.o.s. (Isopropanol, Sodium hydroxide)
Transport document description (ADR) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S., 3 (8), III, (D/E)
Transport document description (IMDG) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isopropanol, Sodium hydroxide), 3 (8), III
Transport document description (IATA) : UN 2924 Flammable liquid, corrosive, n.o.s. (Isopropanol, Sodium hydroxide), 3 (8), III

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 : No
Marine pollutant : No
Other information : Marine Pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 lt or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provisions of this Code relevant to marine pollutants provided the packagings meet the general requirements of 4.1.1.1, 4.1.1.2, and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants also meeting the criteria of inclusion in another hazards class all provisions of the Code relevant to any additional hazards continue to apply.

14.6. Special precautions for user

Overland transport
Tunnel restriction code (ADR) : D/E

Transport by sea
No data available

Air transport
No data available

14.7. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3.	DEC-PHENE® PLUS ; Isopropanol ; Ethylene glycol ; 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-PHENE® PLUS ; 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-PHENE® PLUS ; Isopropanol ; Ethylene glycol ; 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-PHENE® PLUS	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

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
40.	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.

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

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.

POP Regulation (Persistent Organic Pollutants)

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

Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

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**
2	Hazards identification	Modified	
3	Composition/information on ingredients	Modified	
4	First aid measures	Modified	
5	Fire fighting measures	Modified	
6	Accidental release measures	Modified	
7	Handling and storage	Modified	
8	Exposure controls/personal protection	Modified	
9	Physical and chemical properties	Modified	
10	Stability and reactivity	Modified	
11	Toxicological information	Modified	
12.	Ecological information	Modified	

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
13	Disposal considerations	Modified	
14	Transport information	Modified	
15	Regulatory information	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)
	QSAR (Quantitative Structure-Activity Relationship)
	REACH (Registration, Evaluation and Authorisation of CHemicals)
	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. ECHA (European Chemicals Agency), http://echa.europa.eu/.

Other information : Classification procedure according to Regulation (EC) No. 1272/2008 [CLP]: Physical hazards: On basis of test data. Health hazards: Calculation method. Environmental hazards: Calculation method.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4

Full text of H- and EUH-statements:	
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
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
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.
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.
H410	Very toxic to aquatic life with long lasting effects.
Met. Corr. 1	Corrosive to metals, Category 1
Ox. Sol. 2	Oxidising Solids, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
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

Safety Data Sheet (SDS), EU

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