Dimethoate 400 g/L EC

Version	Revision Date:	SDS Number:	Date of last issue: 18.01.2023
1.2	26.03.2025	50000633	Date of first issue: 11.11.2021

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

1.1 Product identifier

Product name Dimethoate 400 g/L EC

Other means of identification

Product code 50000633

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

Use of the Substance/Mixture : Can be used as insecticide only.

Recommended restrictions on use : Use as recommended by the label.
For professional users only.

1.3 Details of the supplier of the safety data sheet

Supplier Address

FMC Agricultural Solutions A/S
Thyborønvej 78
DK-7673 Harboøre
Denmark

Telephone: +45 9690 9690
Telefax: +45 9690 9691
E-mail address: SDS-Info@fmc.com .

1.4 Emergency telephone number

For leak, fire, spill or accident emergencies, call:
Denmark: +45-69918573 (CHEMTREC)

Medical emergency:
Denmark: +45 82 12 12 12

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Acute toxicity, Category 4	H302: Harmful if swallowed.

Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin sensitisation, Sub-category 1B	H317: May cause an allergic skin reaction.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Long-term (chronic) aquatic hazard, Category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements :
H226 Flammable liquid and vapour.
H302 + H332 Harmful if swallowed or if inhaled.
H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements :

Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Disposal:

P501 Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazardous components which must be listed on the label:

cyclohexanone
dimethoate (ISO)
xylene

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
dimethoate (ISO)	60-51-5 200-480-3 015-051-00-4	Self-react. E; H242 Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 Acute toxicity estimate Acute inhalation toxicity (dust/mist): 1,6 mg/l	39
cyclohexanone	108-94-1 203-631-1 606-010-00-7	Flam. Liq. 3; H226 Acute Tox. 4; H332	>= 30 - < 50
xylene	1330-20-7 215-535-7 601-022-00-9	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Aquatic Chronic 3; H412	>= 10 - < 20
alkoxylated short fatty alcohol	Not Assigned		>= 2,5 - < 10

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
Do not leave the victim unattended.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
Avoid inhalation, ingestion and contact with skin and eyes.
If potential for exposure exists refer to Section 8 for specific personal protective equipment.

If inhaled : Call a physician or poison control centre immediately.
If unconscious, place in recovery position and seek medical advice.
If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.

In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : On contact, the first symptoms to appear may be irritation.

Risks : Harmful if swallowed or if inhaled.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : If any of the signs of cholinesterase inhibition occurs, call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to an organophosphorus insecticide.

Describe his/her condition and the extent of exposure. Immediately remove the exposed person from the area where the product is present.

Decontamination procedures such as whole body washing, gastric lavage and administration of activated charcoal are often required.
ANTIDOTE: If symptoms of cholinesterase inhibition (see subsection 4.2.) are present, administer atropine sulphate, which often is a lifesaving antidote, in large doses, TWO to FOUR mg intravenously or intramuscularly as soon as possible. Repeat at 5 to 10 minute intervals until signs of atropinisation appear and maintain full atropinisation until the chemical product is fully metabolised.

Obidoxime chloride (Toxogonin), alternatively pralidoxime chloride(2-PAM), may be administered as an adjunct to, but not a substitute for atropine sulphate. Treatment with oxime should be maintained as long as atropine sulphate is administered.
Especially in the case of dimethoate, treatment with atropine sulphate is essential. Results of treatment with oxime for dimethoate poisoning are notoriously varying and it may happen that oxime doesn't have any positive effect. In no case should oxime be used instead of atropine sulphate.
At first sign of pulmonary oedema the patient should be given supplementary oxygen and treated symptomatically.
Relapse can occur after initial improvement. VERY CLOSE SUPERVISION OF THE PATIENT IS INDICATED FOR AT LEAST 48 HOURS, DEPENDING ON THE SEVERITY OF POISONING.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Dry chemical, CO2, water spray or regular foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	High volume water jet Do not spread spilled material with high-pressure water streams.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon oxides Thermal decomposition can lead to release of irritating gases and vapours. Oxides of phosphorus Nitrogen oxides (NOx)

Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : Firefighters should wear protective clothing and self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

The product is stable when stored at temperatures not exceeding 25°C. Protect against strong heat from sunshine or other source, e.g. fire. At low temperatures, formation of crystals may occur. The product should never be heated above 35°C and also local heating above this temperature should be avoided. See subsection 10.2.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Registered pesticide to be used in accordance with a label approved by country-specific regulatory authorities.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis

cyclohexanone	108-94-1	STEL	20 ppm 81,6 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	10 ppm 40,8 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		S	20 ppm 81,6 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Guiding list of organic solvents.			
		GV	10 ppm 41 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Guiding list of organic solvents.			
xylene	1330-20-7	TWA	50 ppm 221 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 442 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		S	100 ppm 442 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Guiding list of organic solvents.			
		GV	25 ppm 109 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Guiding list of organic solvents.			
ethylbenzene	100-41-4	TWA	100 ppm 442 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	200 ppm 884 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		GV	50 ppm 217 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Carcinogenic substance, Guiding list of organic solvents.			
		S	100 ppm 434 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Carcinogenic substance, Guiding list of organic solvents.			
maleic anhydride	108-31-6	GV	0,1 ppm 0,4 mg/m3	DK OEL
		S	0,2 ppm	DK OEL

			0,8 mg/m3	
toluene	108-88-3	TWA	50 ppm 192 mg/m3	2006/15/EC
	Further information: Indicative, Identifies the possibility of significant uptake through the skin			
		STEL	100 ppm 384 mg/m3	2006/15/EC
	Further information: Indicative, Identifies the possibility of significant uptake through the skin			
		GV	25 ppm 94 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Guiding list of organic solvents.			
		S	100 ppm 384 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Guiding list of organic solvents.			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
cyclohexanone	Workers	Inhalation	Long-term systemic effects	40 mg/m3
	Workers	Inhalation	Acute systemic effects	80 mg/m3
	Workers	Inhalation	Long-term local effects	40 mg/m3
	Workers	Inhalation	Acute local effects	80 mg/m3
	Workers	Dermal	Long-term systemic effects	4 mg/kg
	Workers	Dermal	Acute systemic effects	4 mg/kg
	Consumers	Inhalation	Long-term systemic effects	10 mg/m3
	Consumers	Inhalation	Acute systemic effects	20 mg/m3
	Consumers	Inhalation	Long-term local effects	20 mg/m3
	Consumers	Inhalation	Acute local effects	40 mg/m3
	Consumers	Dermal	Long-term systemic effects	1 mg/kg
	Consumers	Dermal	Acute systemic effects	1 mg/kg
	Consumers	Oral	Long-term systemic effects	1,5 mg/kg
	Consumers	Oral	Acute systemic effects	1,5 mg/kg
xylene	Workers	Inhalation	Long-term systemic effects	221 mg/m3
	Workers	Inhalation	Acute systemic effects	442 mg/m3
	Workers	Inhalation	Long-term local ef-	221 mg/m3

			fects	
	Workers	Inhalation	Acute local effects	442 mg/m3
	Workers	Dermal	Long-term systemic effects	212 mg/kg
	Consumers	Inhalation	Long-term systemic effects	66,3 mg/m3
	Consumers	Inhalation	Acute systemic effects	260 mg/m3
	Consumers	Inhalation	Long-term local effects	65,3 mg/m3
	Consumers	Inhalation	Acute local effects	260 mg/m3
	Consumers	Dermal	Long-term systemic effects	125 mg/m3
	Consumers	Dermal	Long-term systemic effects	12,5 mg/kg
maleic anhydride	Workers	Inhalation	Long-term systemic effects	0,190 mg/m3
	Workers	Inhalation	Acute systemic effects	0,800 mg/m3
	Workers	Inhalation	Long-term local effects	0,320 mg/m3
	Workers	Dermal	Long-term systemic effects	0,200 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	0,200 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0,050 mg/m3
	Consumers	Inhalation	Long-term local effects	0,080 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,100 mg/kg bw/day
	Consumers	Dermal	Acute systemic effects	0,100 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	0,060 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	0,100 mg/kg bw/day
toluene	Workers	Inhalation	Long-term systemic effects	192 mg/m3
	Workers	Inhalation	Acute systemic effects	384 mg/m3
	Workers	Inhalation	Long-term local effects	192 mg/m3
	Workers	Inhalation	Acute local effects	384 mg/m3
	Workers	Dermal	Long-term systemic effects	384 mg/m3
	Consumers	Inhalation	Long-term systemic effects	56,5 mg/m3
	Consumers	Inhalation	Long-term systemic effects	226 mg/m3
	Consumers	Inhalation	Long-term local effects	56,5 mg/m3

	Consumers	Inhalation	Acute local effects	226 mg/m3
	Consumers	Dermal	Long-term systemic effects	226 mg/kg
	Consumers	Oral	Long-term systemic effects	

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
cyclohexanone	Fresh water	0,033 mg/l
	Intermittent use (freshwater)	0,329 mg/l
	Marine water	0,003 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	0,249 mg/kg dry weight (d.w.)
	Marine sediment	0,025 mg/kg dry weight (d.w.)
	Soil	0,03 mg/kg dry weight (d.w.)
xylene	Fresh water	0,327 mg/l
	Intermittent use (freshwater)	0,327 mg/l
	Marine water	0,327 mg/l
	Sewage treatment plant	6,58 mg/l
	Fresh water sediment	12,46 mg/kg
	Marine sediment	12,46 mg/kg
maleic anhydride	Fresh water	0,075 - 0,100 mg/l
	Marine water	0,0075 - 0,010 mg/l
	Intermittent use (freshwater)	0,4281 - 0,750 mg/l
	Sewage treatment plant	4,46 - 44,6 mg/l
	Fresh water sediment	0,060 - 0,334 mg/kg
	Marine sediment	0,006 - 0,0334 mg/kg
	Soil	0,010 - 0,0415 mg/kg
	Oral	6,67 mg/kg
toluene	Fresh water	0,68 mg/l

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection
Material : Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	:	In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. No personal respiratory protective equipment normally required.
Protective measures	:	Plan first aid action before beginning work with this product. Always have on hand a first-aid kit, together with proper instructions. Ensure that eye flushing systems and safety showers are located close to the working place. Wear suitable protective equipment. In the context of professional plant protection use as recommended, the end user must refer to the label and the instructions for use.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Form	:	liquid
Colour	:	light yellow
Odour	:	Faint, mercaptanic-like, acetone-like
Melting point/freezing point	:	< 10 °C
Initial boiling point and boiling range	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	39 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	see subsection 10.2
pH	:	4,3 - 6,6 (1% solution in water)
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	emulsifiable
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available

Relative density	:	No data available
Density	:	1,044 g/cm3
Bulk density	:	No data available
Relative vapour density	:	No data available
Particle characteristics		
Particle size	:	No data available
Particle Size Distribution	:	No data available
Shape	:	No data available

9.2 Other information

Explosives	:	Not explosive
Oxidizing properties	:	Non-oxidizing
Flammability (liquids)	:	Flammable

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

The product (dimethoate) may decompose rapidly when heated, which can result in explosion. It is recommended never to heat the product above 35°C. Direct local heating such as electric heating or by steam must be avoided.

The decomposition is dependent on time as well as temperature due to self-accelerating exothermic and autocatalytic reactions. The reactions involve rearrangements and polymerisation releasing volatile malodorous and inflammable compounds such as dimethyl sulphide and methyl mercaptan.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Strong acids
Strong bases
Strong oxidizing agents

10.6 Hazardous decomposition products

Stable under recommended storage conditions.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if swallowed or if inhaled.

Product:

Acute oral toxicity	:	LD50 (Rat): > 300 - 500 mg/kg Method: OECD Test Guideline 423 Remarks: Based on data from similar materials LD50 (Rat): 450 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 3 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: FIFRA 81.03 Remarks: Based on data from similar materials
Acute dermal toxicity	:	LD50 (Rat): > 2.000 mg/kg Method: OECD Test Guideline 402 Remarks: Based on data from similar materials

Components:

dimethoate (ISO):

Acute oral toxicity	:	LD50 (Rat, male and female): 348 - 423 mg/kg Method: OECD Test Guideline 425 Symptoms: hypoactivity, Tremors LD50 (Rat, female): 300 - 2.000 mg/kg Method: OECD Test Guideline 423 Symptoms: hypoactivity, Tremors GLP: yes Assessment: The component/mixture is moderately toxic after single ingestion. LD50 (Mouse, male and female): 160 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 (Rat): ca. 1,6 mg/l Exposure time: 4 h Test atmosphere: dust/mist LC50 (Rat): 3 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 (Rat, female): > 2.000 mg/kg Symptoms: Tremors Assessment: The component/mixture is minimally toxic after

single contact with skin.
Remarks: no mortality

LD50 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The component/mixture is minimally toxic after single contact with skin.
Remarks: no mortality

cyclohexanone:

Acute inhalation toxicity : LC50 (Rat, male and female): > 6,2 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Assessment: The component/mixture is moderately toxic after short term inhalation.

xylene:

Acute oral toxicity : LD50 (Rat, male): 3.523 mg/kg
Method: Regulation (EC) No. 440/2008, Annex, B.1 bis

LD50 (Rat, female): > 4.000 mg/kg
Method: Regulation (EC) No. 440/2008, Annex, B.1 bis

Acute inhalation toxicity : LC50 (Rat, male and female): 27,6 mg/l, 6350 ppm
Exposure time: 4 h
Test atmosphere: vapour
Method: Regulation (EC) No. 440/2008, Annex, B.2

Acute dermal toxicity : LD50 (Rabbit, male): > 4.200 mg/kg

alkoxylated short fatty alcohol:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Product:

Method : OECD Test Guideline 404
Result : Moderate skin irritation

Remarks : May cause skin irritation and/or dermatitis.

Components:

dimethoate (ISO):

Species : Rabbit
Assessment : Not classified as irritant
Method : OECD Test Guideline 404
Result : slight or no skin irritation.

xylene:

Species	:	Rabbit
Result	:	Skin irritation
Remarks	:	Based on data from similar materials

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Product:

Method	:	OECD Test Guideline 405
Result	:	Moderate eye irritation
Remarks	:	May cause irreversible eye damage.

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Product:

Method	:	OECD Test Guideline 406
Result	:	May cause sensitisation by skin contact.
Remarks	:	Based on data from similar materials
Remarks	:	Causes sensitisation.

Components:

dimethoate (ISO):

Test Type	:	Maximisation Test
Exposure routes	:	Dermal
Species	:	Guinea pig
Assessment	:	Not a skin sensitizer.
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitisation.
GLP	:	yes
Test Type	:	Local lymph node test
Assessment	:	Not a skin sensitizer.
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitisation.

xylene:

Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin contact

Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitisation.

alkoxylated short fatty alcohol:

Test Type	:	Maximisation Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Product:

Germ cell mutagenicity- Assessment	:	Weight of evidence does not support classification as a germ cell mutagen.

Components:

dimethoate (ISO):

Genotoxicity in vitro	:	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative
Genotoxicity in vivo	:	Test Type: unscheduled DNA synthesis assay Species: Rat Cell type: Liver cells Result: positive Test Type: dominant lethal test Species: Mouse Method: OECD Test Guideline 478 Result: negative GLP: yes Test Type: Micronucleus test Species: Mouse Method: OECD Test Guideline 474 Result: negative GLP: yes Test Type: chromosome aberration assay Species: Rat Result: negative

cyclohexanone:

Genotoxicity in vitro	:	Test Type: in vitro DNA damage and/or repair study Test system: human diploid fibroblasts Method: OECD Test Guideline 482

Result: negative

Test Type: reverse mutation assay
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: chromosome aberration assay
Species: Rat (male and female)
Application Route: inhalation (vapour)
Method: OECD Test Guideline 475
Result: negative

Test Type: dominant lethal test
Species: Rat (male and female)
Application Route: inhalation (vapour)
Method: OECD Test Guideline 478
Result: negative

Species: Drosophila melanogaster (vinegar fly) (male and female)
Application Route: Inhalation
Method: OECD Test Guideline 477
Result: negative

Germ cell mutagenicity- Assessment : Weight of evidence does not support classification as a germ cell mutagen.

xylene:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Method: Regulation (EC) No. 440/2008, Annex, B.10
Result: negative

Test Type: sister chromatid exchange assay
Test system: Chinese hamster ovary cells
Result: negative

Genotoxicity in vivo : Test Type: Rodent Dominant Lethal Assay
Species: Mouse (male)
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 478
Result: negative

Carcinogenicity

Based on available data, the classification criteria are not met.

Product:

Carcinogenicity - Assess- : Weight of evidence does not support classification as a car-

ment | cinogen

Components:

cyclohexanone:

Species	:	Rat
Application Route	:	Oral
Exposure time	:	104 weeks
Dose	:	(462 and 910 mg/kg/d
LOAEL	:	3.300 ppm
Result	:	positive
Carcinogenicity - Assessment	:	Weight of evidence does not support classification as a carcinogen

xylene:

Species	:	Rat
Application Route	:	Oral
Exposure time	:	103 weeks
Result	:	negative

Reproductive toxicity

Based on available data, the classification criteria are not met.

Product:

Reproductive toxicity - Assessment	:	Weight of evidence does not support classification for reproductive toxicity

Components:

dimethoate (ISO):

Effects on fertility	:	Test Type: Two-generation study Species: Rat Dose: 1, 15, 65 parts per million General Toxicity F1: LOAEL: 15 ppm Symptoms: Effects on mating performance GLP: yes Test Type: Two-generation study Species: Rat Dose: 0.2, 1, 6.5 mg/kg bw/day General Toxicity - Parent: NOAEL: 1 mg/kg body weight Early Embryonic Development: NOAEL: 6,5 mg/kg body weight Method: OECD Test Guideline 416 GLP: yes Test Type: one-generation reproductive toxicity Species: Rat Application Route: Oral Dose: 6.5 mg/kg bw/day

General Toxicity - Parent: LOAEL: 6,5 mg/kg bw/day
Symptoms: Effects on mating performance
Method: OECD Test Guideline 415
GLP: yes

cyclohexanone:

Effects on fertility : Test Type: Two-generation study
Species: Rat
Application Route: inhalation (vapour)
Dose: 1.02, 2.04, 4.1 mg/l
General Toxicity - Parent: NOAEC: 4,1 mg/l
General Toxicity F1: NOAEC: 2,04 mg/l
General Toxicity F2: NOAEC: 2,04 mg/l
Result: negative

Effects on foetal development : Species: Rabbit
Application Route: Oral
Dose: 50, 250, 500 mg/kg b.w.
General Toxicity Maternal: NOAEL: 250 mg/kg body weight
Teratogenicity: NOAEL: 500 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

xylene:

Effects on fertility : Test Type: Two-generation study
Species: Rat
Application Route: inhalation (vapour)
General Toxicity F1: NOAEC: 2,171 mg/l
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Pre-natal
Species: Rat
Application Route: inhalation (vapour)
Symptoms: Maternal effects
Result: negative
Remarks: Based on data from similar materials

STOT - single exposure

Based on available data, the classification criteria are not met.

STOT - repeated exposure

Based on available data, the classification criteria are not met.

Components:

cyclohexanone:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

dimethoate (ISO):

Species	:	Rat
LOAEL	:	2.5 mg/kg bw/day
Exposure time	:	90 days
Symptoms	:	cholinesterase inhibition

Species	:	Rat
NOAEL	:	0.06 - 0.08 mg/kg bw/day
LOAEL	:	3.22 - 3.78 mg/kg bw/day
Exposure time	:	90d
Symptoms	:	cholinesterase inhibition

cyclohexanone:

Species	:	Rat, male and female
NOAEL	:	143 mg/kg
Application Route	:	Oral
Exposure time	:	90 d
Dose	:	40, 143 and 407 mg/kg b.w.
Method	:	OECD Test Guideline 408

xylene:

Species	:	Rat
NOAEC	:	3,515 mg/l
Application Route	:	Inhalation
Exposure time	:	13 weeks

Aspiration toxicity

May be fatal if swallowed and enters airways.

Product:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Components:

dimethoate (ISO):

The substance does not have properties associated with aspiration hazard potential.

11.2 Information on other hazards

Endocrine disrupting properties

Components:

dimethoate (ISO):

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Experience with human exposure

Components:

xylene:

General Information : Target Organs: inner ear
Symptoms: hearing loss

Target Organs: Central nervous system
Symptoms: Drowsiness, Dizziness

Neurological effects

Components:

dimethoate (ISO):

Remarks : Neurotoxity observed in animals studies

Further information

Product:

Remarks : Solvents may degrease the skin.

Components:

dimethoate (ISO):

Remarks : Dimethoate is rapidly absorbed and excreted following oral administration. It is extensively metabolised. Dimethoate and its metabolites are primarily found in the liver and kidneys. There is no evidence for accumulation.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 61,3 mg/l

Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 5,44 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 233 mg/l
Exposure time: 72 h
Remarks: Based on data from similar materials

Toxicity to fish (Chronic toxicity) : NOEC: 0,72 mg/l
Exposure time: 21 d
Species: Oncorhynchus mykiss (rainbow trout)
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,06 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

Toxicity to soil dwelling organisms : LC50: 271 mg/kg
Exposure time: 14 d
Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organisms : LC50: 0,127 µg/bee
Exposure time: 48 h
Species: Apis mellifera (bees)
Remarks: Oral
Information given is based on data obtained from similar product.

LC50: 0,214 µg/bee
Exposure time: 48 h
Species: Apis mellifera (bees)
Remarks: Contact
Information given is based on data obtained from similar product.

Components:

dimethoate (ISO):

Toxicity to fish : NOEC (Cyprinodon variegatus (sheepshead minnow)): 2,4 mg/l
Test Type: Early-life Stage
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,48 - 0,66 mg/l
Exposure time: 48 h
Test Type: static test

NOEC (Daphnia magna (Water flea)): 0,04 mg/l
Exposure time: 21 d

LC50 (Mysidopsis bahia (opossum shrimp)): 15 mg/l
Exposure time: 96 h
Test Type: static test
Method: US EPA Test Guideline OPP 72-3
GLP: yes

EC50 (Daphnia magna (Water flea)): 1,6 - 2,5 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

NOEC (Crassostrea virginica (atlantic oyster)): 46 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 117 mg/l
End point: Growth inhibition
Exposure time: 72 h
Method: OECD Test Guideline 201

EC50 (Pseudokirchneriella subcapitata (algae)): > 95 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

EC50 (Navicula pelliculosa (Diatom)): > 98 mg/l
Exposure time: 72 h
Method: US EPA Test Guideline OPPTS 850.5400
GLP: yes

NOEC (Lemna gibba (duckweed)): 41,5 mg/l
Exposure time: 7 d
Test Type: Static renewal test
Method: OECD Test Guideline 221
GLP: yes

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC: 0,4 mg/l
Exposure time: 21 d
Species: Oncorhynchus mykiss (rainbow trout)

NOEC: 2,4 mg/l
Species: Cyprinodon variegatus (sheepshead minnow)
Test Type: Early-life Stage
GLP: yes

NOEC: 1,25 mg/l
Species: Oncorhynchus mykiss (rainbow trout)
Test Type: Early Life-Stage
Method: OECD Test Guideline 210
GLP: yes

		LOEC: 96 mg/l Exposure time: 21 d Species: Pimephales promelas (fathead minnow) Method: OECD Test Guideline 229 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0,04 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) NOEC: 0,14 mg/l Exposure time: 32 d Species: Americamysis bahia (mysid shrimp) Test Type: flow-through test GLP: yes
Toxicity to soil dwelling organisms	:	LC50: 31 mg/kg Exposure time: 14 d Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 207 GLP:yes NOEC: 2,87 mg/kg Exposure time: 28 d End point: reproduction Species: Eisenia fetida (earthworms) GLP:yes
Toxicity to terrestrial organisms	:	LD50: 44 mg/kg End point: Acute oral toxicity Species: Anas platyrhynchos (Mallard duck) Method: US EPA Test Guideline OPPTS 850.2100 NOEC: 35,4 ppm End point: Reproduction Test Species: Anas platyrhynchos (Mallard duck) Method: OECD Test Guideline 206 GLP:yes LD50: 17,3 mg/kg End point: Acute oral toxicity Species: Colinus virginianus (Bobwhite quail) Method: EPA OPP 71-2 (Avian Dietary Toxicity Test) GLP:yes NOEC: 10,1 ppm End point: Reproduction Test Species: Colinus virginianus (Bobwhite quail) Method: OECD Test Guideline 206 GLP:yes LD50: 12 µg/bee

End point: Acute contact toxicity
Species: Apis mellifera (bees)
Method: OECD Test Guideline 214
GLP:yes

LD50: 4 µg/bee
End point: Acute oral toxicity
Species: Apis mellifera (bees)
Method: OECD Test Guideline 213
GLP:yes

Ecotoxicology Assessment

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

cyclohexanone:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 527 - 732 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 (activated sludge): > 1.000 mg/l
Exposure time: 30 min
Method: OECD Test Guideline 209

xylene:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2,6 mg/l
Exposure time: 96 h
Test Type: Static renewal test
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 2,2 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

NOEC (Pseudokirchneriella subcapitata (green algae)): 0,44 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to microorganisms : NOEC (activated sludge): 16 mg/l
Exposure time: 28 h
Method: OECD Test Guideline 301F

Toxicity to fish (Chronic toxicity) : NOEC: > 1,3 mg/l
Exposure time: 56 d
Species: Oncorhynchus mykiss (rainbow trout)
Test Type: flow-through test
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,96 mg/l
Exposure time: 7 d
Species: Ceriodaphnia dubia (water flea)
Remarks: Based on data from similar materials

Toxicity to soil dwelling organisms : NOEC: 16 mg/kg
Exposure time: 14 d
Species: Eisenia fetida (earthworms)
Remarks: Based on data from similar materials

alkoxylated short fatty alcohol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

12.2 Persistence and degradability

Components:

dimethoate (ISO):

Biodegradability : Result: Not readily biodegradable.

cyclohexanone:

Biodegradability : Result: Readily biodegradable.
Method: OECD Test Guideline 301F

xylene:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge, non-adapted
Concentration: 16 mg/l
Result: Readily biodegradable.
Biodegradation: 98 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

Test Type: aerobic
Inoculum: activated sludge, non-adapted
Concentration: 16 mg/l
Result: Readily biodegradable.
Biodegradation: 94 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

Test Type: aerobic
Inoculum: activated sludge, non-adapted
Concentration: 16,2 mg/l
Result: Readily biodegradable.
Biodegradation: 90 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

alkoxylated short fatty alcohol:

Biodegradability : Result: Not readily biodegradable.

12.3 Bioaccumulative potential

Components:

dimethoate (ISO):

Bioaccumulation : Species: Salmo gairdneri
Bioconcentration factor (BCF): > 1.000
Remarks: The product/substance has a potential to bioaccumulate.
See section 9 for octanol-water partition coefficient.

Partition coefficient: n-octanol/water : Pow: 5,7 (20 °C)
log Pow: 0,75 (20 °C)
Method: OECD Test Guideline 107

cyclohexanone:

Partition coefficient: n-octanol/water : log Pow: 0,86 (25 °C)

xylene:

Bioaccumulation	:	Species: Oncorhynchus mykiss (rainbow trout) Exposure time: 7 d Concentration: 1,3 mg/l Bioconcentration factor (BCF): > 4,9 Remarks: Based on data from similar materials
Partition coefficient: n-octanol/water	:	log Pow: 3,2 (20 °C) pH: 7 Remarks: Based on data from similar materials log Pow: 3,12 (20 °C) pH: 7 Remarks: Based on data from similar materials log Pow: 3,15 (20 °C) pH: 7 Remarks: Based on data from similar materials log Pow: 3,15 (20 °C) pH: 7 Remarks: Based on data from similar materials

12.4 Mobility in soil

Components:

dimethoate (ISO):

Distribution among environmental compartments	:	Remarks: Highly mobile in soils
Stability in soil	:	Remarks: Not expected to adsorb on soil.

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

dimethoate (ISO):

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Components:

dimethoate (ISO):

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Components:

dimethoate (ISO):

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Waste, residues, etc. must be collected, stored and disposed of in tightly closed container labeled: "Contains a substance that is covered by the Danish health and safety regulation in terms of cancer risk."

Dimethoate is rapidly hydrolysed at pH > 8.0
According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this is not possible, the material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.
The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
It is recommended to consider possible ways of disposal in the following order:
1. Reuse or recycling should first be considered. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.
2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
3. Delivery of the packaging to a licensed service for disposal of hazardous waste.
4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill, containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

SECTION 14: Transport information

14.1 UN number or ID number

ADN	:	UN 1993
ADR	:	UN 1993
RID	:	UN 1993
IMDG	:	UN 1993
IATA	:	UN 1993

14.2 UN proper shipping name

ADN	:	FLAMMABLE LIQUID, N.O.S. (Cyclohexanone, Xylene, Dimethoate)
ADR	:	FLAMMABLE LIQUID, N.O.S. (Cyclohexanone, Xylene, Dimethoate)
RID	:	FLAMMABLE LIQUID, N.O.S. (Cyclohexanone, Xylene, Dimethoate)
IMDG	:	FLAMMABLE LIQUID, N.O.S. (Cyclohexanone, Xylene, Dimethoate)
IATA	:	Flammable liquid, n.o.s. (Cyclohexanone, Xylene, Dimethoate)

14.3 Transport hazard class(es)

		Class	Subsidiary risks
ADN	:	3	
ADR	:	3	
RID	:	3	

IMDG : 3

IATA : 3

14.4 Packing group

ADN

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3

ADR

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3
Tunnel restriction code	:	(D/E)

RID

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3

IMDG

Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E

IATA (Cargo)

Packing instruction (cargo aircraft)	:	366
Packing instruction (LQ)	:	Y344
Packing group	:	III
Labels	:	Flammable Liquids

IATA (Passenger)

Packing instruction (passenger aircraft)	:	355
Packing instruction (LQ)	:	Y344
Packing group	:	III
Labels	:	Flammable Liquids

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

IATA (Passenger)

Environmentally hazardous : yes

IATA (Cargo)
Environmentally hazardous : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 3 toluene (Number on list 48)
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	E1	ENVIRONMENTAL HAZARDS
	P5c	FLAMMABLE LIQUIDS

Other regulations:

When evaluating a workplace, measures must be taken to ensure that employees are not ex-

posed to conditions that may pose a risk during pregnancy or breastfeeding (cf. The Danish Working Environment Authority's Executive Order on The Performance of Work)

Young people under the age of 18 are not allowed to use or be exposed to the product professionally. Young people above the age of 15 are, however, except from this rule if the product is a necessary part of their education.

The substance/mixture is subject to the provisions of BEK nr. 1795 of 18/12/2015 (as amended) “Executive order on Measures to Protect Workers from the Risks related to Exposure to Carcinogenic Substances and Materials at Work”. The work with this substance/mixture may pose a cancer risk. : Ethylbenzene

The components of this product are reported in the following inventories:

TCSI	:	Not in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.
AICS	:	Not in compliance with the inventory
DSL	:	This product contains chemical substance(s) exempt from CEPA DSL Inventory requirements. It is regulated as a pesticide subject to Pest Control Products Act (PCPA) requirements. Read the PCPA label, authorized under the Pest Control Products Act, prior to using or handling this pest control product.
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Full text of H-Statements

H226	:	Flammable liquid and vapour.
H242	:	Heating may cause a fire.

H302	:	Harmful if swallowed.
H312	:	Harmful in contact with skin.
H315	:	Causes skin irritation.
H332	:	Harmful if inhaled.
H410	:	Very toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Flam. Liq.	:	Flammable liquids
Self-react.	:	Self-reactive substances and mixtures
Skin Irrit.	:	Skin irritation
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
2006/15/EC	:	Europe. Indicative occupational exposure limit values
DK OEL	:	Denmark. Occupational Exposure Limits
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit
2006/15/EC / TWA	:	Limit Value - eight hours
2006/15/EC / STEL	:	Short term exposure limit
DK OEL / S	:	Exposure period of 15 minutes
DK OEL / GV	:	Long term exposure limit

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -

Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:		**Classification procedure:**
Flam. Liq. 3	H226	Based on product data or assessment
Acute Tox. 4	H302	Based on product data or assessment
Acute Tox. 4	H332	Based on product data or assessment
Skin Sens. 1B	H317	Based on product data or assessment
Asp. Tox. 1	H304	Based on product data or assessment
Aquatic Chronic 1	H410	Based on product data or assessment

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