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SECTION 1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 Product identifier

Trade name and/or other names and company product codes by which the mixture can be identified

Product name: Dethlac ® Insecticidal Lacquer
(Contains: isopropyl alcohol)

Product code: n/a

Unique Formula Identifier (UFI): 3500- C029- F00W- D762

1.2 Relevant identified uses of the mixture and uses advised against

1.2.1 Relevant identified uses

Insecticide for amateur and professional use only.

1.2.2 Uses advised against

Do not use for any other purpose.

1.3 Details of the supplier of the safety data sheet

IGA Global Ltd,
Emerald House,
Whitehall Road,
Colchester,
Essex,
CO2 8HA

Telephone: 01206 861122
Fax: -
Email: sales@dethlac.co.uk
Web: www.wilsonscolchester.com

1.4 Emergency telephone number

National Emergency Telephone Numbers

Country/provider

UK / UK National Poisons Information Service 0121 507 4123 / 24h (GMT) / English

SECTION 2. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

2.1 Classification of the substance or mixture

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

Flammable Aerosol Category 1	H222	Extremely flammable aerosol.
	H229	Pressurised container: May burst if heated.
Eye Irritation Category 2	H319	Causes serious eye irritation.
Specific Target Organ Toxicity Single Exposure Category 3	H335	May cause respiratory irritation.
Aquatic Acute Toxicity Category 1	H400	Very toxic to aquatic life.
Aquatic Chronic Toxicity Category 1	H410	Very toxic to aquatic life with long lasting effects.

Full text of H-phrases: see section 16

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2.2 Label elements

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

Dethlac ® Insecticidal Lacquer
(Contains: isopropyl alcohol)

Hazard pictograms

GHS02 GHS07 GHS09

Signal word (CLP) Danger

Hazard statements (CLP)	H222	Extremely flammable aerosol.
	H229	Pressurised container: May burst if heated.
	H319	Causes serious eye irritation.
	H335	May cause respiratory irritation.
	H410	Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	P101	If medical advice is needed, have product container or label at hand.
	P102	Keep out of reach of children.
	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P211	Do not spray on an open flame or other ignition source.
	P251	Do not pierce or burn, even after use.
	P261	Avoid breathing gas/mist/vapours/spray.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50° C/122° F.
	P501	Dispose of contents/container in accordance with local/national regulations.

Supplemental Hazard information

2.3 Other hazards

This mixture does not meet the PBT criteria of REACH Regulation, Annex XIII.

This mixture does not meet the vPvB criteria of REACH Regulation, 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.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

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Chemical Name	CAS-No./ EC-No.	Index No.	REACh reg. No.	Conc. (% w/w)	CLP (Reg. 1272/2008) Classification	Specific Conc. Limit/M-Factor/ ATE
Propan-2-ol; isopropyl alcohol; Isopropanol	67-63-0/200-661-7	603-117-00-0	01-2119457558-25	40 - 50	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H335 Substance with Workplace Exposure Limit	-
Petroleum gases, liquefied	68476-85-7/270-704-2	649-202-00-6	-	28 - 32	Eye Irrit. 2; H319 Substance with Workplace Exposure Limit	-
Ethanol; ethyl alcohol	64-17-5/200-578-6	603-002-00-5	01-2119457610-43	16 - 20	Flam. Liq. 2; H225 Eye Irrit. 2; H319 Substance with Workplace Exposure Limit	-
Hydrocarbons, C9, aromatic	64742-95-6/265-199-0	-	-	≤ 2.0	Flam. Liq. 3; H226 STOT SE 3; H335 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	-
2-methylpropan-2-ol; tert-butyl alcohol	75-65-0/200-889-7	603-005-00-1	01-2119444321-51	≤ 0.2	Flam. Liq. 2; H225 Acute Tox. 4; H332 Eye Irrit. 2; H319 STOT SE 3; H335 Substance with Workplace Exposure Limit	-
2-methoxy-1-methylethyl acetate	108-65-6/203-603-9	607-195-00-7	-	0.1 - 0.2	Flam. Liq. 3; H226 Substance with Workplace Exposure Limit	-
Pyrethrines	89997-63-7/289-699-3	-	-	≤ 0.1	Acute Tox. 4 (Oral); H302 Acute Tox. 4 (Inhalation); H332 Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	Aquatic Acute: M=100 Aquatic Chronic: M=100
deltamethrin (ISO); (S)-α-cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate	52918-63-5/258-256-6	607-319-00-x	-	≤ 0.02	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Inhalation: dust, mist), H331 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	Aquatic Acute: M= 1000000 Aquatic Chronic: M= 1000000

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Additional information
For full text of H-phrases, see Section 16.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general:	Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation :	Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact:	Rinse immediately with plenty of water. In case of a skin reaction, consult a physician.
First-aid measures after eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion:	Do NOT induce vomiting. Obtain emergency medical attention.

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

Causes serious eye irritation. May cause respiratory irritation.

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

Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:
Large fire:
None. Product flow must be stopped and container cooled by water spray. Water fog should be used to assist approach to the source of the fire. Large fires should only be fought by the Fire Brigade.
Small fire:
dry powder.

Unsuitable extinguishing media:
Large fire: water jet (direct water jets on the burning product could cause a steam explosion and/or spread the fire).
Small fire: water or foam
Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products may include: carbon monoxide, carbon dioxide, unidentified organic and inorganic compounds.
The vapour is heavier than air, spreads along the ground and distant ignition is possible.
Pressurised containers are liable to explode violently when subjected to high temperatures.
Sustained fire attack on vessels may result in a Boiling Liquid Expanding Vapour Explosion (BLEVE).

5.3. Advice for firefighters

Provide storage and work areas with suitable fire extinguishers.

Call the Fire Brigade at once to deal with all fires involving pesticides unless the fire is small and immediately controllable. Spray unopened containers with a mist spray to keep cool. If without risk, remove intact containers from exposure to fire. Contain fire-fighting water, bunding if necessary with sand or earth. Do not allow contamination of public drains or surface or ground waters. Dispose of fire debris and contaminated water according to all relevant national legislation.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Emergency procedures: Extinguish all naked flames and sources of ignition.
Evacuate unnecessary personnel.

6.1.2. For emergency responders

Immediate emergency actions:

- Remove persons to safety.
- Isolate hazard area and deny entry.
- Use personal protective equipment, see section 8.
- Remove all possible sources of ignition in the surrounding area.
- Call the Emergency Services if required.
- Treat or refer casualties if necessary.
- Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.
- Risk of explosion. Inform the Emergency Services if product enters surface water drains.

Further actions:

- Shut off leaks, if possible, without taking personal risks.
- AVOID MAKING SPARKS.
- Position firefighting equipment.
- Check wind direction and attempt to disperse the vapours or to direct their flow (e.g. by using water curtains or fog sprays) to a safer location e.g. area free from ignition sources.
- Attempt to prevent the gas from entering low lying areas e.g. cellars, pits, drains, sewers or confined spaces.
- Attempt to prevent the gas from entering watercourses e.g. rivers, sewers
- Test atmosphere for flammable gas concentrations to ensure safe working conditions before personnel are allowed to enter the area.
- Confirm all electrical equipment is suitable for use in the area.
- Take precautionary measures against static discharge. Ensure electrical continuity by earthing all equipment.

6.2. Environmental precautions

The product is very toxic to aquatic life with long lasting effects. Use appropriate containment to avoid environmental contamination. Control the release at its source. Contain spills to prevent it from spreading, contaminating soil or entering sewage and drainage systems or any body of water. Inform the local water authorities if the release enters drains, surface or ground waters.

6.3. Methods and material for containment and cleaning up

For containment:

Small release: Allow to evaporate. Any firefighting products should be contained using appropriate methods.

Large release: Notify Emergency Services. If trained and competent to do so attempt to disperse the vapour or to direct its flow to a safer location, e.g. by using fog sprays or water curtains. Allow to evaporate. Any firefighting products should be contained using appropriate methods.

For cleaning up:
Clean objects and areas from firefighting products observing environmental local and national regulations.

6.4. Reference to other sections
Refer to Section 8 for personal protective equipment and to Section 13 for disposal instructions.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Protective measures:
• Use only in well-ventilated areas.
• Where handling cylinders wear personal protective equipment (see section 8).
• Follow local and national regulation related to ventilation, quantity limits, etc.
Measures to prevent fire:
• This product is highly flammable. No smoking or naked lights.
• Avoid any spark creation.
• Remove potential ignition sources, including portable electronic devices.
• Electrostatic charges may be generated during handling and discharge may cause fire.
• Earth all equipment.
• Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.
Measures to prevent vapour or mist generation:
• This product is intended for use in closed systems only.
• Use local exhaust ventilation if there is a risk of inhaling vapours or mists.
• Use semi-automated and predominantly enclosed filling lines.
Measures to protect the environment
• This product is not classified as dangerous for the environment (see section 12) Advice on general occupational health:
• Exposure to this product should be reduced as low as reasonably practicable.
• Work in well-ventilated zone.
• Avoid contact with skin, eyes and clothes.
• Provide eye shower and label its location conspicuously.
• Use suitable Personal Protective Equipment, see section 8.
• Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse.
• Air-dry contaminated clothing in a well-ventilated area before laundering.

7.2 Conditions for safe storage, including any incompatibilities
The mixture is stable under normal ambient conditions. Keep in original container, in a dry, cool and safe place. Store in a locked, suitable store. **Keep away from any source of ignition and other sources of heat.** Keep out of the reach of children and unauthorised personnel. Keep away from food, drink and animal feeding stuffs.

7.3 Specific end use(s)
Product for use only as directed by the product label.

SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control Parameters
Occupational Exposure limit values
Occupational Exposure limit values have been set for the following components:

Workplace exposure Limits as defined by UK HSE in document EH40/2005:

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Workplace exposure Limits as defined by UK HSE in document EH40/2005:

Substance	CAS number	Workplace Exposure Limit				Comments
		Long-term exposure limit (8-hr TWA reference period)		Short-term exposure limit (15 minute reference period)		The Carc, Sen and Sk notations are not exhaustive Notations have been applied to the substances identified in IOELV Directives*
		ppm	mg.m^{-3}	ppm	mg.m^{-3}	
Propan-2-ol	67-63-0	400	999	500	1250	-
Petroleum gases, liquefied	68476-85-7	1000	1750	1250	2180	-
Ethanol	64-17-5	1000	1920	-	-	-
2-methylpropan-2-ol	75-65-0	100	308	150	462	-
2-methoxy-1-methylethyl acetate	108-65-6	50	274	100	548	Sk

*IOELV – Indicative Occupational Exposure Limit Values (IOLEV).

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.

Propan-2-ol:

DNELs:

End Use:	Exposure routes:	Potential health effects:	Exposure time:	Value:
Workers	Skin contact	Chronic effects	1d	888 mg/kg
Workers	Inhalation	Chronic effects	-	500 mg/m3
Consumers	Skin contact	Chronic effects	1d	319 mg/kg
Consumers	Inhalation	Chronic effects	-	89 mg/m3
Consumers	Ingestion	Chronic effects	1d	26 mg/Kg

PNECs:

Fresh water Value: 140.9m/l
Marine water Value: 140.9m/l
Fresh water sediment Value: 552 mg/kg
Marine sediment Value: 552 mg/kg
Soil Value: 28mg/kg

Ethanol:

DNELs:

Workers:

Long-term systemic effects inhalation 950 mg/m³
Long-term systemic effects dermal 343 mg/kg bw/day

General population:

Long-term systemic effects inhalation 114 mg/m³
Long-term systemic effects dermal 206 mg/kg bw/day
Long-term systemic effects oral 87 mg/kg bw/day

PNECs:

Fresh water 0.96 mg/l
Marine water 0.79 mg/l
Fresh water (intermittent releases) 2.75 mg/l
STP 580 mg/l

Fresh water sediment	3.6 mg/kg sediment dw
Marine water sediment	2.9 mg/kg sediment dw
Soil	0.63 mg/kg soil dw
Oral	0.38 g/kg food

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Engineering controls and appropriate work processes must be used to eliminate or reduce worker and environmental exposure in the areas where the product is handled, transported, loaded, unloaded, stored and used. These measures must be adequate for the extent of the actual risk. Provide adequate local exhaust ventilation. Use specialized transfer systems if available.

8.2.2 Personal protection equipment

Eye and face protection:
Wear suitable eye protection (EN 166).
Skin protection:
Hand protection: Wear suitable protective gloves against chemicals (EN 374 part 1, 2, 3). Nitrile rubber min. 0.5mm thick and 300mm long gloves are the ones proven to be the most suitable according to tests on pesticide products.
Wash the gloves thoroughly after each use, especially the insides. Replace gloves if damaged and before exceeding the breakthrough time.
Body protection: Avoid contact with skin. If there is a significant potential for contact, wear suitable coveralls (ISO 13982-1, Type 5, EN 13034, Type 6).
Other skin protection: None specified.
Respiratory protection:
Wear suitable respiratory protection. If a risk assessment shows that engineering controls do not provide adequate respiratory protection to exposure, wear a Self-Contained Breathing Apparatus (SCBA).
Thermal hazards:
Not required under appropriate product use and storage.

8.2.3 Environmental exposure controls

Implement all applicable local and community environmental protection legislation. Refer to Section 15. Use appropriate containment to avoid environmental contamination. Do not empty into drains. Do not contaminate water with the product or used container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads. Refer to Section 12 and 13.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

All the data contained in this section are derived from similar mixtures unless otherwise stated.

a)	Physical state:	Aerosol; fine spray.
b)	Colour:	No data available
c)	Odour :	No data available
d)	Melting point/freezing point:	No data available
e)	Initial boiling point and boiling range:	No data available
f)	Flammability (gas, liquid, solid):	No data available
g)	Upper/lower explosion limits:	No data available
h)	Flash point:	<0°C
i)	Auto-ignition temperature:	No data available
j)	Decomposition temperature:	No data available
k)	pH:	No data available
l)	Dynamic viscosity	No data available
m)	Solubility(ies)	No data available

n)	Partition coefficient: n-octanol/water:	No data available
o)	Vapour pressure:	No data available
p)	Density/relative density	No data available
q)	Relative vapour density	No data available
r)	Particle characteristics	No data available

9.2 Other information
9.2.1 Information with regard to physical hazard classes
-

9.2.2 Other safety characteristics
None

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
Not applicable.

10.2 Chemical stability
Stable when stored in original container under normal conditions of storage and use.

10.3 Possibility of hazardous reactions
No hazardous reactions when stored in original container under normal conditions of storage and use.

10.4 Conditions to avoid
No additional information available.

10.5 Incompatible materials
Strong acids. Strong bases. Oxidizing agent.

10.6 Hazardous decomposition products
During decomposition evolves toxic and corrosive fumes which may including carbon oxides, nitrogen oxides, sulphur oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
All the data contained in this section are derived from actual test data on a similar mixture unless otherwise stated.

(a) acute toxicity:
Product:
Based on available data, the classification criteria are not met

Relevant ingredients where available:
Propan-2-ol:
Acute oral toxicity LD50:>2,000mg/kg, rat, GLP: no, (literature value)
Acute dermal toxicity LD50:>2,000mg/kg, rabbit, GLP: no, (literature value)

Ethanol:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value Determination
Oral	LD50	OECD 401	10470 mg/Kg bw	-	Rat (male/ female)	Experimental value
Inhalation (vapours)	LC50	Equivalent to OECD 403	124.7 mg/l air	4h	Rat (male/ female)	Experimental value

Hydrocarbons, C9, aromatic:
LD50 oral rat 2000 – 5000 mg/kg
LD50 dermal rabbit > 2000 mg/kg

Deltamethrin:
LD50 oral rat 87 mg/kg mouse
LD50 dermal rat > 2000 mg/kg
LC50 Inhalation Rat 0,6 mg/l

(b) skin corrosion/irritation:
Product:
Based on available data, the classification criteria are not met
Relevant ingredients where available:
Propan-2-ol:
Rabbit, result: not irritating (literature value)

Ethanol:

Route of exposure	Result	Method	Exposure time	Time point	Species	Value Determination	Remark
Skin	Not irritating	OECD 404	24 hr	1;2;3;4;5;7 days	Rabbit	Experimental	Single treatment

(c) serious eye damage/irritation:
Product:
Classified as Eye Irritation Category 2.
Relevant ingredients where available:
Propan-2-ol:
Rabbit, result: irritating (literature value)

Ethanol:

Route of exposure	Result	Method	Exposure time	Time point	Species	Value Determination	Remark
Eye	Irritating	OECD 405	14 days	24;48;72 days	Rabbit	Experimental	Single treatment

(d) respiratory or skin sensitisation:
Product:
Based on available data, the classification criteria are not met
Relevant ingredients where available:
Propan-2-ol:
Buehler Test, guinea pig, result: not sensitising (literature value)

Ethanol:

Route of exposure	Result	Method	Exposure time	Time point	Species	Value Determination	Remark
Skin	Not sensitizing	Equivalent to OECD 429	-	-	Mouse (male)	Experimental	-

(e) germ cell mutagenicity:
Product:
Based on available data, the classification criteria are not met
Relevant ingredients where available:
Propan-2-ol:
Genotoxicity in vitro Ames test, Salmonella typhimurium, with and without, result: not mutagenic (literature value)

Petroleum gases, liquified:
germ cell mutagenicity: No evidence of mutagenic activity.

Ethanol:

Result	Method	Exposure time	Test substrate	Organ	Value Determination
Ambiguous (Oral (stomach tube))	Equivalent to OECD 478	5 days (1x per day)	Mouse (male)	General	Experimental value

(f) carcinogenicity:
Product:
Based on available data, the classification criteria are not met
Relevant ingredients where available:
Petroleum gases, liquified:
Carcinogenicity: Not expected to be carcinogenic.

Ethanol:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value Determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 453	≥ 1.3 ppm	24 month(s)	Rat (male/ female)	No carcinogenic effect		Read across.
Oral (diet)	NOAEL	Equivalent to OECD 451	>3000 mg/Kg bw/day	104 weeks (daily)	Rat (male/ female)	No carcinogenic effect		Experimental determination

(g) reproductive toxicity:
Product:
Based on available data, the classification criteria are not met
Relevant ingredients where available:

Petroleum gases, liquified:
reproductive toxicity: Not expected to impair sexual function and fertility. Not a developmental toxicant.

Ethanol:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value Determination
Developmental toxicity (Inhalation (vapours))	NOAEL	Equivalent to OECD 414	≥ 20000 ppm	20 days (7h/day)	Rat (male)	No effect	Stomach	Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEL	Equivalent to OECD 414	16000 pp,	20 days (7h/day)	Rat (female)	No effect		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL (P)	Equivalent to OECD 416	20700 mg/Kg bw/day	18 weeks(s)	Mouse (male/ female)	No effect		Experimental value

(h) STOT-single exposure:
Product:
Based on available data, the classification criteria are not met
Relevant ingredients where available:
Petroleum gases, liquified:
STOT - single exposure:
Low vapour concentrations may cause nausea, dizziness, headaches and drowsiness. May have a narcotic effect if high concentrations of vapour are inhaled.
High vapour concentrations may produce symptoms of oxygen deficiency which, coupled with central nervous system depression, may lead to rapid loss of consciousness and/or death.

Hydrocarbons, C9, aromatic:
STOT-single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

(i) STOT-repeated exposure:
Product:
Classified as Specific Target Organ Toxicity Single Exposure Category 3.

Relevant ingredients where available:
Petroleum gases, liquified:
STOT - repeated exposure Low systemic toxicity on repeated exposure.

(j) aspiration hazard:
Product:
Based on available data, the classification criteria are not met
Relevant ingredients where available:

11.2 Information on other hazards:
Endocrine disrupting properties: None
Other information: None

SECTION 12. ECOLOGICAL INFORMATION

All the information and data contained in this section are derived from data on the active substance, unless indicated otherwise.

12.1 Toxicity

Product:

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

Relevant ingredients where available:

Propanol-2-ol; isopropyl alcohol; isopropanol:

Toxicity to fish LC50:> 100mg/l, 48 h, Leuciscus idus melanotus, static GLP: no (literature value)

Toxicity to daphnia and other EC50:> 100mg/l, 48h, Daphnia magna, static test, GLP: aquatic invertibrates no, literature value)

Toxicity to algae EC50:> 100mg/l, 72h, Scenedesmus subspicatus, static test, GLP: no, (literature value)

Ethanol:

Acute toxicity fishes:

Parameter:	LC50
Method:	US EPA
Value:	15300 mg/l
Duration:	96 hr
Species:	Pimephales promelas
Test design:	Flow-through system
Fresh/salt water:	Fresh water
Value determination:	Experimental value

Acute toxicity crustacea:

Parameter:	LC50
Method:	ASTM E279-80
Value:	5012 mg/l
Duration:	48 hr
Species:	Ceriodaphnia dubia
Test design:	Static system
Fresh/salt water:	Fresh water
Value determination:	Experimental value; nominal concentration

Toxicity algae and other aquatic plants:

Parameter:	ErC50
Method:	Equivalent to OECD 201
Value:	275 mg/l
Duration:	3 days
Species:	Chlorella vulgaris
Test design:	Static system
Fresh/salt water:	Fresh water
Value determination:	Experimental value; nominal concentration

Long-term toxicity fish:

Parameter:	ChV
Method:	US EPA
Value:	245 mg/l
Duration:	30 days
Species:	Pisces

Test design:
Fresh/salt water: Fresh water
Value determination: QSAR; lethal
Long-term toxicity aquatic crustacea:
Parameter: NPEC
Method:
Value: 9.6 mg/l
Duration: 9 days
Species: Daphnia magna
Test design: Semi-static system
Fresh/salt water: Fresh water
Value determination: Experimental value; nominal concentration
Toxicity aquatic micro-organisms:
Parameter: EC50
Method:
Value: 5800 mg/l
Duration: 4 hr
Species: Paramecium caudatum
Test design: Static system
Fresh/salt water: Fresh water
Value determination: Experimental value; nominal concentration

2-methoxy-1-methylethyl acetate (108-65-6)
LC50 - Fish [1] 100 – 180 g/l
EC50 - Crustacea [1] > 400 mg/l
EC50 72h - Algae [1] > 1000 mg/l

deltamethrin (ISO); (S)-α-cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate (52918-63-5)
LC50 - Fish [1] 0,00026 mg/l rainbow trout
EC50 96h - Algae [1] 0,47 mg/l Freshwater algae
NOEC chronic fish 0,00017 mg/l 260days, Pimephales promelas

Pyrethrines (89997-63-7)
LC50 - Fish [1] < 0,0052 mg/l salmo gairdneri
EC50 - Crustacea [1] < 0,012 mg/l
LOEC (acute) 3 mg/l
NOEC chronic fish 0,0019 mg/l
NOEC chronic crustacea 0,00086 mg/l
NOEC chronic algae < 0,00023 mg/l

12.2. Persistence and degradability
Relevant ingredients where available:
Propanol-2-ol; isopropyl alcohol; isopropanol:
Biodegradability Aerobic, >70%, result: readily biodegradable, exposure time: 10d, content 7mg/l, GLP: no, (literature value)

Ethanol:
Biodegradation water
Value: 84 %; Oxygen consumption
Duration: 20 day(s)
Value determination: Experimental value

Phototransformation air (DT50 air):
Value: 40hr
Conc. OH-radicals: 500000 /cm³
Value determination: Calculated value

Hydrocarbons, C11-C14, n- alkanes, isoalkanes, cyclics aromatics <2% cyclics (64742-47-8)
Persistence and degradability: Biodegradable.

2-methoxy-1-methylethyl acetate (108-65-6)
Persistence and degradability: Readily biodegradable.

deltamethrin (ISO); (S)-α-cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate (52918-63-5)
Persistence and degradability: Not readily biodegradable.

12.3. Bioaccumulative potential
Relevant ingredients where available:
Ethanol:
BCF fishes:

Parameter:	Method:	Value:	Duration:	Species:	Value determination:
BCF		1-4.5	72hr	Cyprinus carpio	Read-across

Log Kow:

Method:	Remark:	Value:	Temperature:	Value determination:
OECD 17		-0.35	24°C	Experimental value

Conclusion: not bioaccumulating.

2-methoxy-1-methylethyl acetate (108-65-6)
Partition coefficient n-octanol/water (Log Pow): 1,2
Bioaccumulative potential: Bioaccumulation unlikely.

deltamethrin (ISO); (S)-α-cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate (52918-63-5)
BCF - Fish [1] 1400 Lepomis macrochirus
Partition coefficient n-octanol/water (Log Pow): 4,6
Bioaccumulative potential: No bioaccumulation.

Pyrethrines (89997-63-7)
BCF - Fish [1]: > 4
Partition coefficient n-octanol/water (Log Kow): > 4

12.4. Mobility in soil
Relevant ingredients where available:
Ethanol:
Log Koc:
Value: 0; Calculated value
Percent distribution:

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination:
Mackay level III	53.2%		0.1%	13.7%	33.1%	QSAR

Conclusion:
Contains component(s) with potential for mobility in the soil.

12.5. Results of PBT and vPvB assessment
This substance is not considered to be persistent, bioaccumu-lating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

This 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
None.

12.7. Other adverse effects
No additional information available.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
For the handling and management of accidental release, follow the information given under Section 6 and 7.

Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Disposal must be done according to official regulations.

Ecology - waste materials	Do not puncture or incinerate, even when empty. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

14.1. UN number or ID number

UN-No. (ADR) :	1950
UN-No. (IMDG)	1950
UN-No. (IATA)	1950
UN-No. (ADN):	1950
UN-No. (RID) :	1950

14.2. UN proper shipping name

Proper Shipping Name (ADR):	AEROSOLS, flammable N.O.S. (contains pyrethrines and deltamethrin)
Proper Shipping Name (IMDG):	AEROSOLS, flammable N.O.S. (contains pyrethrines and deltamethrin)
Proper Shipping Name (IATA):	AEROSOLS, flammable N.O.S. (contains pyrethrines and deltamethrin)
Proper Shipping Name (ADN):	AEROSOLS, flammable N.O.S. (contains pyrethrines and deltamethrin)
Proper Shipping Name (RID):	AEROSOLS, flammable N.O.S. (contains pyrethrines and deltamethrin)

14.3. Transport hazard class(es)
ADR
Transport hazard class(es) (ADR) : 2

14.4. Packing group
Packing group (ADR) : -

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : 5F
Special provisions (ADR) : 190 327 344 625
Limited quantities (ADR) : 1L
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P207 LP200
Special packing provisions (ADR) :
Mixed packing provisions (ADR) : MP9
Portable tank and bulk container instructions (ADR) : -
Portable tank and bulk container special provisions (ADR) : -
Tank code (ADR) : -
Vehicle for tank carriage : -
Transport category (ADR) : 2 (D) (Tunnel restriction code)
Special provisions for carriage - Packages (ADR) : V14
Special provisions for carriage - Loading, unloading and handling (ADR) : CV9 CV12
Hazard identification number (Kemler No.) : -

14.7. Transport in bulk according to according to IMO instruments

Not applicable.

SECTION 15. REGULATORY INFORMATION

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

Regulations

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended). UK REACH Regulations SI 2019/758.

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.
REGULATION (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

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Version: 01
Supersedes: SDS dated 29th March 2022

Guidance:
Workplace Exposure Limits EH40.
ECHA Guidance on the Application of the CLP Criteria.
ECHA Guidance on the compilation of safety data sheets

15.2 Chemical Safety Assessment
No Chemical Safety Assessment under Regulation (EC) 1907/2006 has been carried out.

SECTION 16. OTHER INFORMATION

(a) Reasons for update:

Change in formatting	Updated - All sections.

(b) Abbreviations and acronyms:

Acute Tox. 3/4 (Inhalation)	Acute Toxicity Category 3/4 (inhalation)
Acute Tox. 4/4 (Oral)	Acute Toxicity Category 3/4 (oral)
Aquatic Acute 1	Aquatic Acute Toxicity Category 1
Aquatic Chronic 1/2	Aquatic Chronic Toxicity Category 1/2
Asp. Tox. 1	Aspiration Toxicity Category 1
ATE	Acute Toxicity Estimate
DNEL	Derived No-Effect Level
EC50	Half maximal effective concentration
ErC50	Concentration of test substance which results in a 50 percent reduction in growth rate relative to the control within 72hrs exposure.
Eye Irrit. 2	Eye Irritation category 2
Flam. Liq. 2/3	Flammable Liquid Category 2/3
LD50/LC50	Lethal Dose/Lethal Concentration 50%
PBT	Persistent, Bioaccumulative, Toxic
PNEC	Predicted No-Effect Concentration
Skin Sens. 1B	Skin Sensitisation Category 1B
STOT SE3	Specific Target Organ Toxicity Category Single Exposure Category 3
vPvB	very Persistent, very Bioaccumulative

(c) Key literature references and sources for data:
Ingredient Safety Data Sheets
ECHA Database
ECHA Guidance on the compilation of safety data sheets
ECHA guidance on the Application of the CLP Criteria

(d) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008:

Classification according to Regulation (EC) 1272/2008	Classification procedure
Eye Irritation 2 – H319	By calculation on basis of components.
STOT SE 3 – H335	By calculation on basis of components.
Aquatic Acute 1 – H400	By calculation on basis of components.
Aquatic Chronic 1 – H410	By calculation on basis of components.

(e) Relevant H-statements and precautionary statements not written out in full under Sections 2 to 15:
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

(f) Training advice:
General occupational hygiene training recommended.

(g) Further information:
The information and recommendations in this publication are, to the best of our knowledge, information and belief, accurate at the date of publication. Nothing herein is to be construed as a warranty, expressed or implied. In all cases it is the responsibility of the user to determine the applicability of such information or the suitability of any products for their own particular purpose.

This Safety Data Sheet was compiled in compliance with Regulation (EC) 1907/2006 as amended by 2020/878.