SAFETY DATA SHEET

BORI IMPREGNATION WITH BIOCIDE W

Version	Revision Date:	SDS Number:	Date of last issue: 24.06.2026
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : BORI IMPREGNATION WITH BIOCIDE W

Product code : 48010702

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

Use of the Substance/Mixture : SU21, PW: Consumer uses, Widespread use by professional workers
PROC10,: Roller application or brushing, Dipping
PT8,: Wood preservatives, Biocidal product

1.3 Details of the supplier of the safety data sheet

Company : KANSAI HELIOS Slovenija d.o.o.
Količevo 65
1230 Domžale
Slovenia

Telephone Company : 386 (1) 722 4383

Telefax Company : 386 (1) 722 4310

Responsible/issuing person : 386 (1) 722 4383
productsafety@kansai-helios.si

1.4 Emergency telephone number

Ambulance & Emergency Emergency telephone number: 140

Access code: 13586 +1 760 476 3959

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Cat-	H410: Very toxic to aquatic life with long lasting

egory 1 effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements :
H304 May be fatal if swallowed and enters airways.
H410 Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements :
EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements :
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P260 Do not breathe vapours.
P262 Do not get in eyes, on skin, or on clothing.
P273 Avoid release to the environment.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P391 Collect spillage.
P405 Store locked up.

Prevention:

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:
hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics

Additional Labelling

EUH208 Contains 3-iodo-2-propynyl butylcarbamate. May produce an allergic reaction.

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

Chemical nature : Solvent-borne coatings

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics	- 918-481-9 01-2119457273-39	Asp. Tox. 1; H304	>= 70 - < 90
3-iodo-2-propynyl butylcarbamate	55406-53-6 259-627-5 616-212-00-7 01-2120762115-60	Acute Tox. 4; H302 Acute Tox. 3; H331 Eye Dam. 1; H318 Skin Sens. 1; H317 STOT RE 1; H372 (larynx) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 0.25 - < 1
tebuconazole	107534-96-3 403-640-2 603-197-00-7 01-0000015329-67	Acute Tox. 4; H302 Repr. 2; H361d Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 10	>= 0.1 - < 0.25
permethrin(ISO)	52645-53-1	Acute Tox. 4; H302	>= 0.025 - <

	258-067-9 613-058-00-2	Acute Tox. 3; H331 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1,000 M-Factor (Chronic aquatic toxicity): 1,000	0.1
Substances with a workplace exposure limit :			
(2-methoxymethylethoxy)propanol	34590-94-8 252-104-2 01-2119450011-60		>= 1 - < 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.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
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

Risks : May be fatal if swallowed and enters airways.

May be fatal if swallowed and enters airways.
Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO2)

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear 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.

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).
Keep in suitable, closed containers for disposal.

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.
Provide sufficient air exchange and/or exhaust in work rooms.
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.
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 in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installa-

tions / working materials must comply with the technological safety standards.

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

7.3 Specific end use(s)

Specific use(s) : For further information, refer to the product technical data sheet.

Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
(2-Methoxymethylethoxy)propanol	34590-94-8	TWA	50 ppm 308 mg/m3	2000/39/EC

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

Substance name	End Use	Exposure routes	Potential health effects	Value
(2-Methoxymethylethoxy)propanol	Workers	Inhalation	Long-term systemic effects	308 mg/m3
	Consumers	Inhalation	Long-term systemic effects	37.2 mg/m3
	Workers	Dermal	Long-term systemic effects	283 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	121 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	36 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
(2-Methoxymethylethoxy)propanol	Soil	2.74 mg/kg dry weight (d.w.)
	Marine water	1.9 mg/l
	Fresh water	19 mg/l
	Marine sediment	7.02 mg/kg dry weight (d.w.)

	Fresh water sediment	70.2 mg/kg dry weight (d.w.)
	Sewage treatment plant	4168 mg/l
	Intermittent use/release	190 mg/l

8.2 Exposure controls

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection : Equipment should conform to EN 166
Eye wash bottle with pure water
Tightly fitting safety goggles

Hand protection
Gloves : Nitrile rubber (> 0,1 mm; < 60 min); ISO EN374
Viton® (> 0,6 mm; < 240 min); ISO EN374
PE laminate (> 0,1 mm; < 240 min); ISO EN374

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

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 : No personal respiratory protective equipment normally required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Form : liquid

Colour : brown

Odour : solvent-like

Odour Threshold : No data available

pH : No data available

Boiling point/boiling range	:	180 - 220 °C (calculation method (principal components, lowest value))
Flash point	:	65 °C
Upper explosion limit / Upper flammability limit	:	6.1 %(V) (calculation method (principal components, highest value))
Lower explosion limit / Lower flammability limit	:	0.6 %(V) (calculation method (principal components, highest value))
Density	:	0.79 - 0.83 g/cm3
Solubility(ies)		
Water solubility	:	immiscible, partly soluble
Solubility in other solvents	:	Description: miscible with most organic solvents
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	No decomposition if stored and applied as directed. Hazardous decomposition products formed under fire conditions.
Viscosity		
Viscosity, kinematic	:	< 21 mm2/s (40 °C)

9.2 Other information

No data available

VOC	:	(Directive 2004/42/EC) 748 g/l

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

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 : Incompatible with strong acids and bases.

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified due to lack of data.

Product:

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

Acute oral toxicity : LD50 Oral (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 5,000 mg/l
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 Dermal (Rabbit, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402

3-iodo-2-propynyl butylcarbamate:

Acute oral toxicity : LD50 Oral (Rat): >= > 300 - 500 mg/kg
Method: OECD Test Guideline 423

Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

Acute inhalation toxicity : LC50 (Rat, male and female): 0.67 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: EPA OPP 81-2
The test was conducted according to guideline

tebuconazole (ISO):

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

permethrin (ISO):

Acute oral toxicity : LD50 Oral (Rat): 1,479 mg/kg

Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

Acute inhalation toxicity : LC50 (Rat): > 0.599 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Dermal (Rat): > 2,000 mg/kg

(2-Methoxymethylethoxy)propanol:

Acute oral toxicity : Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.

Product:

Remarks : May cause skin irritation and/or dermatitis.

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes

Result : Repeated exposure may cause skin dryness or cracking.

3-iodo-2-propynyl butylcarbamate:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

permethrin (ISO):

Species : Rabbit
Result : No skin irritation

(2-Methoxymethylethoxy)propanol:

Result : Not classified due to data which are conclusive although insufficient for classification.

Species : Rabbit
Result : No skin irritation

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
Remarks : The test was conducted equivalent or similar to guideline

Species : Human
Result : No skin irritation
Remarks : No test guideline followed

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
Remarks : The test was conducted equivalent or similar to guideline

Serious eye damage/eye irritation

Not classified due to lack of data.

Product:

Remarks : Vapours may cause irritation to the eyes, respiratory system and the skin.

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

Species : Rabbit
Method : OECD Test Guideline 405
Result : No eye irritation

3-iodo-2-propynyl butylcarbamate:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Risk of serious damage to eyes.

permethrin (ISO):

Species	:	Rabbit
Result	:	No eye irritation

(2-Methoxymethylethoxy)propanol:

Result	:	Not classified due to data which are conclusive although insufficient for classification.

Species	:	Rabbit
Result	:	No eye irritation
Remarks	:	No test guideline followed

Species	:	Rabbit
Result	:	No eye irritation
Remarks	:	No test guideline followed

Species	:	Rabbit
Result	:	No eye irritation

Species	:	Human
Result	:	No eye irritation
Remarks	:	No test guideline followed

Respiratory or skin sensitisation

Skin sensitisation

Not classified due to lack of data.

Respiratory sensitisation

Not classified due to lack of data.

Product:

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

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Not a skin sensitizer.

3-iodo-2-propynyl butylcarbamate:

Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	May cause sensitisation by skin contact.

permethrin (ISO):

Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	May cause sensitisation by skin contact.

(2-Methoxymethylethoxy)propanol:

Assessment	:	Not classified due to data which are conclusive although insufficient for classification.
Exposure routes	:	Skin contact
Species	:	Human
Result	:	negative
Remarks	:	No test guideline followed
Assessment	:	Not classified due to data which are conclusive although insufficient for classification.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

Genotoxicity in vitro	:	Result: negative
Genotoxicity in vivo	:	Result: negative

3-iodo-2-propynyl butylcarbamate:

Genotoxicity in vitro	:	Method: OECD Test Guideline 471 Result: negative Method: OECD Test Guideline 476 Result: negative Method: OECD Test Guideline 473 Result: negative
Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse Application Route: oral (gavage)

Method: OECD Test Guideline 474
Result: negative
The test was conducted equivalent or similar to guideline

Germ cell mutagenicity- Assessment : Not classified due to data which are conclusive although insufficient for classification.

permethrin (ISO):

Genotoxicity in vitro : Result: negative

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Mouse
Application Route: Ingestion
Result: positive

Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: Intraperitoneal injection
Result: negative

Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Result: negative

Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Mouse
Result: negative

Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Result: negative

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

(2-Methoxymethylethoxy)propanol:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Method: OECD Test Guideline 482

Result: negative
The test was conducted equivalent or similar to guideline

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: yeast cytogenetic assay
Method: OECD Test Guideline 481
Result: negative
The test was conducted equivalent or similar to guideline

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
The test was conducted according to guideline

Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
The test was conducted equivalent or similar to guideline

Germ cell mutagenicity- Assessment : Not classified due to data which are conclusive although insufficient for classification.

Carcinogenicity

Not classified due to lack of data.

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

Result : negative

3-iodo-2-propynyl butylcarbamate:

Species : Mouse
Application Route : oral (feed)
Exposure time : 78 Weeks
Method : OECD Test Guideline 451

Result	:	negative
Remarks	:	The test was conducted equivalent or similar to guideline
Carcinogenicity - Assessment	:	Not classified due to data which are conclusive although insufficient for classification.

permethrin (ISO):

Remarks	:	No significant adverse effects were reported

(2-Methoxymethylethoxy)propanol:

Species	:	Mouse
Application Route	:	inhalation (vapour)
Exposure time	:	2 yr
Method	:	OECD Test Guideline 453
Result	:	negative
Remarks	:	The test was conducted according to guideline
Species	:	Rat
Application Route	:	inhalation (vapour)
Exposure time	:	2 yr
Method	:	OECD Test Guideline 453
Result	:	negative
Remarks	:	The test was conducted according to guideline
Carcinogenicity - Assessment	:	Not classified due to data which are conclusive although insufficient for classification.

Reproductive toxicity

Not classified due to lack of data.

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

Effects on foetal development	:	Fertility and developmental toxicity tests did not reveal any effect on reproduction.

3-iodo-2-propynyl butylcarbamate:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: oral (gavage) Method: OECD Test Guideline 416 Result: negative The test was conducted equivalent or similar to guideline
Effects on foetal development	:	Test Type: Developmental Toxicity Species: Mouse Application Route: oral (gavage)

Result: negative
The test was conducted according to guideline

Reproductive toxicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

Not classified due to data which are conclusive although insufficient for classification.

tebuconazole (ISO):

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

permethrin (ISO):

Effects on fertility : No significant adverse effects were reported

Effects on foetal development : No significant adverse effects were reported

(2-Methoxymethylethoxy)propanol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (vapour)
Method: OECD Test Guideline 416
Result: positive
The test was conducted according to guideline

Effects on foetal development : Test Type: Developmental Toxicity
Species: Rabbit
Application Route: Inhalation
Result: negative
The test was conducted according to guideline

Test Type: Developmental Toxicity
Species: Rat
Application Route: Inhalation
Result: negative
The test was conducted according to guideline

Reproductive toxicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

Not classified due to data which are conclusive although insufficient for classification.

STOT - single exposure

Not classified due to lack of data.

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

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

3-iodo-2-propynyl butylcarbamate:

Assessment : Not classified due to data which are conclusive although insufficient for classification.

(2-Methoxymethylethoxy)propanol:

Assessment : Not classified due to data which are conclusive although insufficient for classification.

STOT - repeated exposure

Not classified due to lack of data.

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

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

3-iodo-2-propynyl butylcarbamate:

Target Organs : larynx
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

permethrin (ISO):

Remarks : No significant adverse effects were reported

(2-Methoxymethylethoxy)propanol:

Assessment : Not classified due to data which are conclusive although insufficient for classification.

Repeated dose toxicity

Components:

3-iodo-2-propynyl butylcarbamate:

Species : Rat
NOAEL : 1,16 mg/m3
Application Route : Inhalation
Test atmosphere : dust/mist
Exposure time : 13 w
Number of exposures : 7 d/w
Method : OECD Test Guideline 413

GLP	:	yes
Remarks	:	Subchronic toxicity
Species	:	Rat
NOAEL	:	20 mg/kg
Application Route	:	Oral
Exposure time	:	2 yr
Number of exposures	:	7 d/w

Aspiration hazard

May be fatal if swallowed and enters airways.

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

May be fatal if swallowed and enters airways.

3-iodo-2-propynyl butylcarbamate:

Not classified due to lack of data.

(2-Methoxymethylethoxy)propanol:

Not classified due to data which are conclusive although insufficient for classification.

Further information

Product:

Remarks	:	Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 : > 1,000 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	NOEC (Pseudokirchneriella subcapitata (microalgae)): 1,000 mg/l Exposure time: 72 h

Method: OECD Test Guideline 201

EC50 (Pseudokirchneriella subcapitata (microalgae)): > 1,000 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

3-iodo-2-propynyl butylcarbamate:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.067 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): >= 0.16 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): >= 0.022 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Desmodesmus subspicatus (green algae)): 0.0046 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to microorganisms	:	EC50 (Bacteria): 44 mg/l Exposure time: 3 h
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.0084 mg/l Exposure time: 35 d Species: Pimephales promelas (fathead minnow) Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.05 mg/l Exposure time: 21 d Species: Daphnia (water flea)
M-Factor (Chronic aquatic toxicity)	:	10

Ecotoxicology Assessment

Acute aquatic toxicity	:	Very toxic to aquatic life.

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

tebuconazole (ISO):

Toxicity to fish	:	LC50 (Fish): 4.4 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	:	IC50 (algae): 3.8 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to microorganisms	:	EC50 (Bacteria): 44 mg/l
M-Factor (Chronic aquatic toxicity)	:	10

Ecotoxicology Assessment

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

permethrin (ISO):

Toxicity to fish	:	LC50 (Fish): 0.0076 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): 0.00017 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (algae): 0.5 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	1,000
Toxicity to microorganisms	:	EC50 : > 1,000 mg/l Exposure time: 3 h
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.00041 mg/l Exposure time: 35 d Species: Danio rerio (zebra fish) Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.0047 µg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity)	:	1,000

Ecotoxicology Assessment

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

(2-Methoxymethylethoxy)propanol:

Toxicity to fish	:	LC50 (Notropis atherinoides (Emerald Shiner)): > 150 mg/l Exposure time: 72 h No test guideline followed LC50 (Pimephales promelas (fathead minnow)): > 10,000 mg/l Exposure time: 96 h LC50 (Cyprinodon variegatus (sheepshead minnow)): > 1,930 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 The test was conducted according to guideline LC50 (Poecilia reticulata (guppy)): > 1,000 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 The test was conducted according to guideline
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Acartia tonsa (Calanoid copepod)): 1,930 mg/l Exposure time: 48 h LC50 (Daphnia magna (Water flea)): 1,919 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 The test was conducted equivalent or similar to guideline LC50 (Crangon crangon (shrimp)): > 1,000 mg/l Exposure time: 48 h Method: EPA OPP 72-3 The test was conducted equivalent or similar to guideline
Toxicity to algae/aquatic plants	:	NOEC (Skeletonema costatum (marine diatom)): 5,000 mg/l Exposure time: 72 h Method: ISO 10253 The test was conducted according to guideline EC50 (Skeletonema costatum (marine diatom)): 6,999 mg/l Exposure time: 72 h

Method: ISO 10253
The test was conducted according to guideline

NOEC (Pseudokirchneriella subcapitata (green algae)): 969 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201
The test was conducted according to guideline

EC50 (Pseudokirchneriella subcapitata (green algae)): > 969 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201
The test was conducted according to guideline

Toxicity to microorganisms : EC10 (Pseudomonas putida): 4,168 mg/l
Exposure time: 18 h

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified due to data which are conclusive although insufficient for classification.

Chronic aquatic toxicity : Not classified due to data which are conclusive although insufficient for classification.

12.2 Persistence and degradability

Components:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

3-iodo-2-propynyl butylcarbamate:

Biodegradability : Concentration: 0.02 mg/l
Result: Biodegradable
Biodegradation: > 80 %
Exposure time: 1 d
Method: OECD Test Guideline 302B

permethrin (ISO):

Biodegradability : Result: Not readily biodegradable.

(2-Methoxymethylethoxy)propanol:

Biodegradability	:	Result: Not readily biodegradable. Exposure time: 81 d Method: OECD Test Guideline 311 The test was conducted equivalent or similar to guideline Result: Inherently biodegradable. Biodegradation: 94 % Exposure time: 13 d Method: OECD Test Guideline 302B The test was conducted according to guideline Result: Inherently biodegradable. Biodegradation: 34 % Exposure time: 28 d Method: OECD Test Guideline 301B The test was conducted according to guideline Result: Readily biodegradable. Biodegradation: 72.9 % Exposure time: 28 d Method: OECD Test Guideline 301E The test was conducted according to guideline Result: Readily biodegradable. Biodegradation: 75 % Exposure time: 10 d Method: OECD Test Guideline 301F The test was conducted according to guideline

12.3 Bioaccumulative potential

Components:

3-iodo-2-propynyl butylcarbamate:

Partition coefficient: n-octanol/water	:	log Pow: 2.8

permethrin (ISO):

Bioaccumulation	:	Species: Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): 570
Partition coefficient: n-octanol/water	:	log Pow: 5.95

(2-Methoxymethylethoxy)propanol:

Partition coefficient: n-octanol/water	:	log Pow: -0.064

12.4 Mobility in soil

No data available

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:

hydrocarbons, C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics:

Assessment : Not persistent, bioaccumulative, and toxic (PBT).

12.6 Other adverse effects

Product:

Endocrine disrupting potential : 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.

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 : 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.

SECTION 14: Transport information

14.1 UN number

ADN	:	UN 3082
ADR	:	UN 3082
RID	:	UN 3082
IMDG	:	UN 3082
IATA	:	UN 3082

14.2 UN proper shipping name

ADN	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (permethrin, 3-iodo-2-propynyl butylcarbamate)
ADR	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (permethrin, 3-iodo-2-propynyl butylcarbamate)
RID	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (permethrin, 3-iodo-2-propynyl butylcarbamate)
IMDG	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (permethrin, 3-iodo-2-propynyl butylcarbamate)
IATA	:	Environmentally hazardous substance, liquid, n.o.s. (permethrin, 3-iodo-2-propynyl butylcarbamate)

14.3 Transport hazard class(es)

		Class	Subsidiary risks
ADN	:	9	
ADR	:	9	
RID	:	9	
IMDG	:	9	
IATA	:	9	

14.4 Packing group

ADN

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9

ADR

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9
Tunnel restriction code	:	(-)

RID

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9

IMDG

Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F

IATA (Cargo)

Packing instruction (cargo aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

IATA (Passenger)

Packing instruction (passenger aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Volatile organic compounds	:	Directive 2004/42/EC Volatile organic compounds (VOC) content: 748 g/l

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of H-Statements

H302	:	Harmful if swallowed.
H304	:	May be fatal if swallowed and enters airways.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H331	:	Toxic if inhaled.
H361d	:	Suspected of damaging the unborn child.
H372	:	Causes damage to organs through prolonged or repeated exposure.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	:	Aspiration hazard
Eye Dam.	:	Serious eye damage
Repr.	:	Reproductive toxicity
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
2000/39/EC / TWA	:	Limit Value - eight hours

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 Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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 - Organisation 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; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:		**Classification procedure:**
Asp. Tox. 1	H304	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.