KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

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

1.1 Product identifier

Product name KOBAN™ T Herbicide

Other means of identification

Product code 50000675

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

Use of the Sub: : Can be used as herbicide only.

stance/Mixture Herbicide

Recommended restrictions

on use

: Use as recommended by the label.

1.3 Details of the supplier of the safety data sheet

Supplier Address FMC CHEMICALS (PTY) LTD

COMPANY REGISTRATION NUMBER: 1988/001451/07 WEST END OFFICE PARK, BUILDING C CNR. WEST AVE

& HALL STREET CENTURION, 0014

E-mail address: SDS-Info@fmc.com (E-Mail General Infor-

mation)

1.4 Emergency telephone For leak, fire, spill or accident emergencies, call:

South Africa: 0-800-983-611 (CHEMTREC)

Medical emergency:

For any emergency or poisoning contact: Griffon Poison Infor-

mation Centre (24 hrs) - +27-(0)-82-446-8946

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 H302: Harmful if swallowed.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Skin sensitization, Category 1 H317: May cause an allergic skin reaction.

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Specific target organ toxicity - repeated

exposure, Category 2

H373: May cause damage to organs through pro-

longed or repeated exposure.

Aspiration hazard, Category 1 H304: May be fatal if swallowed and enters air-

ways.

Short-term (acute) aquatic hazard, Cate-

gory 1

H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Cat-

egory 1

H410: Very toxic to aquatic life with long lasting

effects.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms







Signal Word : Danger

Hazard Statements : 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.

H373 May cause damage to organs through prolonged or

repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : Prevention:

P260 Do not breathe mist or vapors.P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON

CENTER/ doctor.

P331 Do NOT induce vomiting.

P391 Collect spillage.

Hazardous ingredients which must be listed on the label:

pethoxamide (ISO)

terbuthylazine (ISO)

Solvent naphtha (petroleum), heavy arom.

1,2-benzisothiazol-3(2H)-one

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

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.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		
pethoxamide (ISO)	106700-29-2	Acute Tox. 4; H302 Acute Tox. 4; H302	>= 25 - < 30
	616-145-00-3	Skin Sens. 1; H317	
		Aquatic Acute 1;	
		H400	
		Aquatic Chronic 1; H410	
		M-Factor (Acute	
		aquatic toxicity):	
		M-Factor (Chronic	
		aquatic toxicity):	
		100	
terbuthylazine (ISO)	5915-41-3	Acute Tox. 4; H302	>= 10 - < 20
	227-637-9	STOT RE 2; H373	
	613-323-00-2	Aquatic Acute 1; H400	
		Aquatic Chronic 1;	
		H410	
		M-Factor (Acute	
		aquatic toxicity): 10	
		M-Factor (Chronic	
		aquatic toxicity): 10	
Solvent naphtha (petroleum), heavy	64742-94-5	Asp. Tox. 1; H304	>= 10 - < 20
arom.	265-198-5	Aquatic Chronic 2;	
	649-424-00-3	H411	
Tristyrylphenol ethoxylates	99734-09-5	Aquatic Chronic 3; H412	>= 2.5 - < 10
		11714	
ethane-1,2-diol	107-21-1	Acute Tox. 4; H302	>= 1 - < 10
	203-473-3	STOT RE 2; H373	
	603-027-00-1	(Kidney)	
Alcohols, C9-11-iso-, C10-rich, eth-	78330-20-8	Eye Dam. 1; H318	>= 1 - < 3
oxylated			
calcium dodecylbenzenesulphonate	26264-06-2	Acute Tox. 4; H302	>= 1 - < 2.5

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

	247-557-8	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412	
naphthalene	91-20-3 202-049-5 601-052-00-2	Acute Tox. 4; H302 Carc. 2; H351 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.1 - < 0.25
		M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute	>= 0.0025 - < 0.025
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9 613-167-00-5	aquatic toxicity): 10 Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 100	<= 0.0002
		M-Factor (Chronic aquatic toxicity): 100	

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.

Consult a physician.

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

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 : Avoid inhalation, ingestion and contact with skin and eyes.

If inhaled : If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

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 : 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 : Harmful if swallowed.

May be fatal if swallowed and enters airways.

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 : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing

media

Do not spread spilled material with high-pressure water

streams.

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 prod- : Carbon oxides

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

ucts Sulfur oxides

Carbon oxides Sulfur oxides

5.3 Advice for firefighters

Special protective equipment:

for fire-fighters

Firefighters should wear protective clothing and self-contained

breathing apparatus.

Specific extinguishing meth-

ods

Remove undamaged containers from fire area if it is safe to do

SO.

Use a water spray to cool fully closed containers.

Further information : Standard procedure for chemical fires.

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.

Use personal protective equipment. If it can be safely done, stop the leak.

Do not touch or walk through the spilled material.

Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.

Prevent product from entering drains.

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 : Never return spills in original containers for re-use.

Collect as much of the spill as possible with a suitable absor-

bent material.

Pick up and transfer to properly labeled containers. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

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

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapors/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 ap-

plication area.

Dispose of rinse water in accordance with local and national

regulations.

Persons susceptible to skin sensitization 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

Normal measures for preventive fire protection.

Hygiene measures : General industrial hygiene practice. Avoid contact with skin,

eyes and clothing. Do not inhale aerosol.

Avoid contact with skin, eyes and clothing. When using do not eat or drink. When using do not smoke. Wash hands before

breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Prevent unauthorized access. 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 stand-

ards.

Further information on stor-

age stability

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form	Control parameters	Basis
		of exposure)		
ethane-1,2-diol	107-21-1	OEL-RL (vapour	50 ppm	ZA OEL
		fraction)		
Further information	danger of cutaneous absorption, Occupational Exposure Limits - Restricted			
	Limits For Hazardous Chemical Agents			
		OEL- RL STEL/C	20 mg/m3	ZA OEL
		(aerosol only)	_	

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Further information	danger of cutaneous absorption, Occupational Exposure Limits - Restricted			
	Limits For Hazardous Chemical Agents			
		OEL- RL STEL/C	100 ppm	ZA OEL
		(vapour fraction)		
Further information			Occupational Exposure Limits	s - Restricted
	Limits For Haz	zardous Chemical A	gents	
		STEL	40 ppm	2000/39/EC
			104 mg/m3	
		TWA	20 ppm	2000/39/EC
			52 mg/m3	
naphthalene	91-20-3	OEL-RL	20 ppm	ZA OEL
Further information	danger of cutaneous absorption, Occupational Exposure Limits - Restricted			
	Limits For Hazardous Chemical Agents, denotes carcinogenicity, which is			
	based on GHS categorisation, including category 1A, 1B			
		TWA	10 ppm	91/322/EEC
			50 mg/m3	

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

Substance name	End Use	Routes of expo-	Potential health effects	Value
pethoxamide (ISO)			Systemic effects	0.02 mg/kg
ethane-1,2-diol	Workers	Inhalation	Long-term local ef- fects	35 mg/m3
	Workers	Dermal	Long-term systemic effects	106 mg/kg
	Consumers	Inhalation	Long-term local ef- fects	7 mg/m3
	Consumers	Dermal	Long-term systemic effects	53 mg/kg
calcium dodecylben- zenesulphonate	Workers	Inhalation	Long-term systemic effects	52 mg/m3
	Workers	Dermal	Long-term systemic effects	57.2 mg/kg
	Consumers	Inhalation	Long-term systemic effects	26 mg/m3
	Consumers	Dermal	Long-term systemic effects	28.6 mg/kg
	Consumers	Oral	Long-term systemic effects	13 mg/kg
naphthalene	Workers	Inhalation	Long-term systemic effects	25 mg/m3
	Workers	Inhalation	Long-term local ef- fects	25 mg/m3
	Workers	Dermal	Long-term systemic effects	3.57 mg/kg bw/day
1,2-benzisothiazol- 3(2H)-one	Workers	Inhalation	Long-term systemic effects	6.81 mg/m3
	Workers	Dermal	Long-term systemic effects	0.966 mg/kg
	Consumers	Inhalation	Long-term systemic effects	1.2 mg/m3
	Consumers	Dermal	Long-term systemic effects	0.345 mg/kg
reaction mass of 5-	Workers	Inhalation	Long-term local ef-	0.02 mg/m3

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

chloro-2-methyl-2H- isothiazol-3-one and 2-methyl-2H- isothiazol-3-one (3:1)			fects	
	Workers	Inhalation	Acute local effects	0.04 mg/m3
	Consumers	Inhalation	Long-term local ef- fects	0.02 mg/m3
	Consumers	Inhalation	Acute local effects	0.04 mg/m3
	Consumers	Oral	Long-term systemic effects	0.09 mg/kg
	Consumers	Oral	Acute systemic ef- fects	0.11 mg/kg

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

Substance name	Environmental Compartment	Value
pethoxamide (ISO)	·	0.29 µg/l
ethane-1,2-diol	Fresh water	10 mg/l
	Sea water	1 mg/l
	Sewage treatment plant	199.5 mg/l
	Fresh water sediment	37 mg/kg dry
		weight (d.w.)
	Sea sediment	3.7 mg/kg dry
		weight (d.w.)
	Soil	1.53 mg/kg dry
		weight (d.w.)
calcium dodecylbenzenesulpho- nate	Fresh water	0.28 mg/l
	Sea water	0.458 mg/l
	Fresh water sediment	27.5 mg/kg
	Sea sediment	2.75 mg/kg
	Soil	25 mg/kg
	Oral	20 mg/kg
naphthalene	Fresh water	0.0024 mg/l
	Intermittent use/release	0.020 mg/l
	Sea water	0.0024 mg/l
	Sewage treatment plant	2.9 mg/l
	Fresh water sediment	0.0672 mg/kg dry
		weight (d.w.)
	Sea sediment	0.0672 mg/kg dry
		weight (d.w.)
	Soil	0.0533 mg/kg dry
		weight (d.w.)
1,2-benzisothiazol-3(2H)-one	Fresh water	0.00403 mg/l
	Sea water	0.000403 mg/l
	Sewage treatment plant	1.03 mg/l
	Fresh water sediment	0.0499 mg/l
	Sea sediment	0.00499 mg/l
reaction mass of 5-chloro-2-	Fresh water	0.00339 mg/l
methyl-2H-isothiazol-3-one and		
2-methyl-2H-isothiazol-3-one (3:1)		
	Intermittent use/release	0.00339 mg/l
	Sea water	0.00339 mg/l
	Sewage treatment plant	0.23 mg/l

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

	Fresh water sediment	0.027 mg/kg	
	Sea sediment	0.027 mg/kg	

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.

Hand protection

Material : Protective gloves

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 concen-

tration of the dangerous substance at the work place.

Respiratory protection : In the case of dust or aerosol formation use respirator with an

approved filter.

Protective measures : Plan first aid action before beginning work with this product.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Color : light brown

Odor : aromatic

Odor Threshold : No data available

pH : No data available

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : No data available

Evaporation rate : No data available

Upper explosion limit / Upper

flammability limit

7 %(V)

Lower explosion limit / Lower

flammability limit

0.6 %(V)

Vapor pressure : No data available

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Relative vapor density : No data available

Relative density : No data available

Density : No data available

Solubility(ies)

Water solubility : No data available

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : Non-oxidizing

9.2 Other information

Molecular weight : Not applicable

Self-ignition : No data available

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.

10.4 Conditions to avoid

Conditions to avoid : Avoid extreme temperatures.

Avoid formation of aerosol.

10.5 Incompatible materials

Materials to avoid : Avoid strong acids, bases, and oxidizers.

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

10.6 Hazardous decomposition products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : LD50 (Rat): 300 - 2,000 mg/kg

Method: OECD Test Guideline 420

Assessment: The component/mixture is moderately toxic after

single ingestion.

Acute inhalation toxicity : LC50 (Rat): > 4.95 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The component/mixture is minimally toxic after

short term inhalation.

Remarks: Based on data from similar materials

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

Method: OECD Test Guideline 402

Assessment: The component/mixture is minimally toxic after

single contact with skin.

Remarks: Based on data from similar materials

Components:

pethoxamide (ISO):

Acute oral toxicity : LD50 (Rat): 983 mg/kg

Method: OECD Test Guideline 401

Acute toxicity estimate: 983 mg/kg Method: Calculation method

Acute inhalation toxicity : LC50 (Rat): > 4.95 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

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

terbuthylazine (ISO):

Acute oral toxicity : LD50 (Rat): 1,590 mg/kg

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Acute inhalation toxicity : LC50 (Rat): > 5.3 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

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

Solvent naphtha (petroleum), heavy arom.:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 401

Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 4.688 mg/l

Exposure time: 4 h
Test atmosphere: vapor

Assessment: The substance or mixture has no acute inhala-

tion toxicity

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

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Tristyrylphenol ethoxylates:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 401

Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

ethane-1,2-diol:

Acute oral toxicity : Acute toxicity estimate: 500.0 mg/kg

Method: Converted acute toxicity point estimate

Acute inhalation toxicity : LC0 (Rat, male and female): > 2.5 mg/l

Exposure time: 6 h

Test atmosphere: dust/mist Remarks: no mortality

Acute dermal toxicity : LD50 (Mouse, male and female): > 3,500 mg/kg

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Acute oral toxicity : LD50 (Rat): 2,030 mg/kg

calcium dodecylbenzenesulphonate:

Acute oral toxicity : LD50 (Rat, male and female): 1,300 mg/kg

Remarks: Based on data from similar materials

Acute toxicity estimate: 1,300 mg/kg

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Method: Calculation method

Acute inhalation toxicity : Remarks: Not classified

Acute dermal toxicity : LD50 (Rat, male and female): > 2000 milligram per kilogram

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

naphthalene:

Acute oral toxicity : LD50 (Mouse, female): 710 mg/kg

Method: OECD Test Guideline 401

Acute toxicity estimate: 710 mg/kg Method: Calculation method

Acute inhalation toxicity : LC0 (Rat, male and female): > 0.4 mg/l

Exposure time: 4 h
Test atmosphere: vapor

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 16,000 mg/kg

Method: OECD Test Guideline 402

1,2-benzisothiazol-3(2H)-one:

Acute oral toxicity : Acute toxicity estimate: 500.0 mg/kg

Method: Converted acute toxicity point estimate

LD50 (Rat, male and female): 490 mg/kg Method: OECD Test Guideline 401

Acute toxicity estimate: 490 mg/kg Method: Calculation method

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Acute oral toxicity : LD50 Oral (Rat, female): 200 mg/kg

Method: OECD Test Guideline 423

Acute toxicity estimate: 200 mg/kg Method: Calculation method

Acute inhalation toxicity : LC50 (Rat, male and female): 0.33 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Method: OECD Test Guideline 403

Assessment: Corrosive to the respiratory tract.

Acute toxicity estimate: 0.33 mg/l Test atmosphere: dust/mist Method: Calculation method

Acute dermal toxicity : LD50 (Rabbit, male): 87 mg/kg

Acute toxicity estimate: 87 mg/kg Method: Calculation method

Skin corrosion/irritation

Not classified based on available information.

Product:

Method : OECD Test Guideline 404
Result : Moderate skin irritation

Remarks : Based on data from similar materials

Components:

pethoxamide (ISO):

Assessment : Not classified as irritant
Method : OECD Test Guideline 404

Result : slight irritation

terbuthylazine (ISO):

Result : No skin irritation

Solvent naphtha (petroleum), heavy arom.:

Species : Rabbit

Assessment : Repeated exposure may cause skin dryness or cracking.

Result : No skin irritation

Remarks : Minimal effects that do not meet the threshold for classifica-

tion.

Based on data from similar materials

Tristyrylphenol ethoxylates:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

ethane-1,2-diol:

Species : Rabbit

Result : No skin irritation

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Species : Rabbit

Result : No skin irritation

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

calcium dodecylbenzenesulphonate:

Species : Rabbit

Method : OECD Test Guideline 404

Result : Skin irritation

naphthalene:

Species : Rabbit

Result : No skin irritation

1,2-benzisothiazol-3(2H)-one:

Species : Rabbit Exposure time : 72 h

Method : OECD Test Guideline 404

Result : No skin irritation

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Method : OECD Test Guideline 404

Result : Corrosive after 1 to 4 hours of exposure

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Assessment : Irritating to eyes.

Method : OECD Test Guideline 405

Result : Eye irritation

Remarks : Based on data from similar materials

Components:

pethoxamide (ISO):

Assessment : Not classified as irritant
Method : OECD Test Guideline 405

Result : slight irritation

terbuthylazine (ISO):

Result : No eye irritation

Solvent naphtha (petroleum), heavy arom.:

Species : Rabbit

Assessment : No eye irritation

Remarks : Minimal effects that do not meet the threshold for classifica-

tion.

Based on data from similar materials

Tristyrylphenol ethoxylates:

Species : Rabbit

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Method : OECD Test Guideline 405

Result : No eye irritation

ethane-1,2-diol:

Species : Rabbit

Result : No eye irritation

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Species : Rabbit
Method : Draize Test

Result : Irreversible effects on the eye

calcium dodecylbenzenesulphonate:

Species : Rabbit

Method : OECD Test Guideline 405
Result : Irreversible effects on the eye

Remarks : Based on data from similar materials

Species : Rabbit

Method : OECD Test Guideline 405
Result : Irreversible effects on the eye

naphthalene:

Species : Rabbit

Result : No eye irritation

1,2-benzisothiazol-3(2H)-one:

Species : Bovine cornea

Method : OECD Test Guideline 437

Result : No eye irritation

Species : Rabbit

Method : EPA OPP 81-4

Result : Irreversible effects on the eye

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Result : Irreversible effects on the eye

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Product:

Remarks : Causes sensitization.

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Components:

pethoxamide (ISO):

Method : OECD Test Guideline 406

Result : May cause sensitization by skin contact.

Assessment : Harmful if swallowed.

May cause an allergic skin reaction.

terbuthylazine (ISO):

Result : Does not cause skin sensitization.

Solvent naphtha (petroleum), heavy arom.:

Test Type : Maximization Test

Species : Guinea pig

Result : Not a skin sensitizer.

Remarks : Based on data from similar materials

ethane-1,2-diol:

Test Type : Maximization Test

Species : Guinea pig

Result : Does not cause skin sensitization.

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Result : Does not cause skin sensitization.

calcium dodecylbenzenesulphonate:

Test Type : Maximization Test

Species : Guinea pig

Method : OECD Test Guideline 406 Result : Not a skin sensitizer.

Remarks : Based on data from similar materials

naphthalene:

Test Type : Maximization Test

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitization.

1,2-benzisothiazol-3(2H)-one:

Test Type : Maximization Test

Species : Guinea pig

Method : OECD Test Guideline 406

Result : May cause sensitization by skin contact.

Species : Guinea pig Method : FIFRA 81.06

Result : May cause sensitization by skin contact.

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Result : The product is a skin sensitizer, sub-category 1A.

Germ cell mutagenicity

Not classified based on available information.

Components:

terbuthylazine (ISO):

Germ cell mutagenicity- As-

sessment

Weight of evidence does not support classification as a germ

cell mutagen.

Solvent naphtha (petroleum), heavy arom.:

Genotoxicity in vitro : Test Type: reverse mutation assay

Method: OECD Test Guideline 471

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Bone marrow chromosome aberration.

Species: Rat

Application Route: inhalation (vapor)

Result: negative

Tristyrylphenol ethoxylates:

Genotoxicity in vitro : Test Type: reverse mutation assay

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Remarks: No data available

ethane-1,2-diol:

Genotoxicity in vitro : Test Type: reverse mutation assay

Method: OPPTS 870.5100

Result: negative

Genotoxicity in vivo : Test Type: dominant lethal test

Species: Rat

Application Route: Oral Result: negative

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Genotoxicity in vitro : Test Type: reverse mutation assay

Result: negative

Remarks: Based on data from similar materials

Germ cell mutagenicity- As-

sessment

: In vivo tests did not show mutagenic effects

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

calcium dodecylbenzenesulphonate:

Genotoxicity in vitro : Test Type: reverse mutation assay

Method: OECD Test Guideline 471

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: chromosome aberration assay

Species: Rat (male and female)

Application Route: Oral Exposure time: 90 d Result: negative

Remarks: Based on data from similar materials

Germ cell mutagenicity- As-

sessment

Weight of evidence does not support classification as a germ

cell mutagen.

naphthalene:

Genotoxicity in vitro : Test Type: reverse mutation assay

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse

Application Route: Intraperitoneal injection

Result: negative

1,2-benzisothiazol-3(2H)-one:

Genotoxicity in vitro : Test Type: gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: positive

Genotoxicity in vivo : Test Type: unscheduled DNA synthesis assay

Species: Rat (male) Cell type: Liver cells

Application Route: Ingestion

Exposure time: 4 h

Method: OECD Test Guideline 486

Result: negative

Test Type: Micronucleus test

Species: Mouse Application Route: Oral

Method: OECD Test Guideline 474

Result: negative





Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Germ cell mutagenicity- As-

sessment

Weight of evidence does not support classification as a germ

cell mutagen.

Carcinogenicity

Not classified based on available information.

Components:

pethoxamide (ISO):

Carcinogenicity - Assess-

ment

No evidence of carcinogenicity in animal studies.

terbuthylazine (ISO):

Carcinogenicity - Assess-

Weight of evidence does not support classification as a car-

ment cinogen

Solvent naphtha (petroleum), heavy arom.:

Species : Rat, male and female
Application Route : inhalation (vapor)
Exposure time : 12 month(s)

NOAEC : 1.8 mg/l Result : negative

Remarks : Based on data from similar materials

Carcinogenicity - Assess-

ment

Not classifiable as a human carcinogen.

ethane-1,2-diol:

Species : Mouse Application Route : Oral

Exposure time : 24 month(s)
Result : negative

calcium dodecylbenzenesulphonate:

Species : Rat, male and female

Application Route : Oral Exposure time : 720 d

NOAEL : 250 mg/kg body weight

Result : negative

Remarks : Based on data from similar materials

Carcinogenicity - Assess- :

ment

Weight of evidence does not support classification as a car-

cinogen

naphthalene:

Species : Rat
Application Route : Inhalation
Exposure time : 2 Years
Result : positive

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Carcinogenicity - Assess-

ment

: Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

Not classified based on available information.

Components:

pethoxamide (ISO):

Reproductive toxicity - As-

sessment

Animal testing showed no reproductive toxicity.

terbuthylazine (ISO):

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Effects on fertility : Species: Rat

Application Route: Dermal

General Toxicity Parent: NOEL: 250 mg/kg body weight General Toxicity F1: NOEL: 250 mg/kg body weight

Effects on fetal development : Species: Rat

Application Route: Dermal

General Toxicity Maternal: NOEL: 250 mg/kg body weight

Teratogenicity: NOEL: 250 mg/kg body weight

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

calcium dodecylbenzenesulphonate:

Effects on fertility : Test Type: Fertility/early embryonic development

Species: Rat, male and female Application Route: Ingestion

General Toxicity Parent: NOAEL: 400 mg/kg body weight

Method: OECD Test Guideline 422

Result: negative

Effects on fetal development : Test Type: reproductive and developmental toxicity study

Species: Rat

Application Route: Ingestion

General Toxicity Maternal: NOAEL: 300 mg/kg body weight Developmental Toxicity: NOAEL: 600 mg/kg body weight

Method: OECD Test Guideline 422

Result: negative

Reproductive toxicity - As-

sessment

: Weight of evidence does not support classification for repro-

ductive toxicity

naphthalene:

Effects on fertility : Test Type: reproductive and developmental toxicity study

Species: Rat

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Application Route: Inhalation

Result: negative

Effects on fetal development : Test Type: Embryo-fetal development

Species: Rat

Application Route: Oral

Method: OECD Test Guideline 414

Result: Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses

1,2-benzisothiazol-3(2H)-one:

Effects on fertility : Species: Rat, male

Application Route: Ingestion

General Toxicity Parent: NOAEL: 18.5 mg/kg body weight General Toxicity F1: NOAEL: 48 mg/kg body weight

Fertility: NOAEL: 112 mg/kg bw/day

Symptoms: No effects on reproduction parameters.

Method: OPPTS 870.3800

Result: negative

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

STOT-single exposure

Not classified based on available information.

Components:

pethoxamide (ISO):

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

organ toxicant, single exposure.

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

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

organ toxicant, single exposure.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Product:

Assessment : The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 2.

Components:

pethoxamide (ISO):

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

organ toxicant, repeated exposure.

ethane-1,2-diol:

Routes of exposure : Oral

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Target Organs : Kidney

Assessment : The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 2.

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

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

organ toxicant, repeated exposure.

1,2-benzisothiazol-3(2H)-one:

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

organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

pethoxamide (ISO):

terbuthylazine (ISO):

Species : Mouse NOEL : 2.97 mg/kg

Application Route : Oral Exposure time : 2 years

Species : Rat

NOEL : 0.35 mg/kg Application Route : Oral Exposure time : 2 years

Species : Dog
NOEL : 0.4 mg/kg
Application Route : Oral
Exposure time : 1 year

Solvent naphtha (petroleum), heavy arom.:

Species : Rat, male and female

NOAEC : 0.9 - 1.8 mg/l
Application Route : inhalation (vapor)
Exposure time : 12 months

ethane-1,2-diol:

Species : Rat
NOAEL : 150 mg/kg
Application Route : Oral
Exposure time : 12 months

Species : Dog

NOAEL : > 2,200 - < 4,400 mg/kg

Application Route : Dermal Exposure time : 4 weeks

Method : OECD Test Guideline 410

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Species : Rat
NOAEL : 80 mg/kg
Application Route : Dermal
Exposure time : 90 d

Species : Rat
NOAEL : 150 mg/kg
Application Route : Oral
Exposure time : 90 d

calcium dodecylbenzenesulphonate:

Species : Rat, male and female

NOAEL : 85 mg/kg LOAEL : 145 mg/kg Application Route : Oral Exposure time : 9 Months

Remarks : Based on data from similar materials

Species : Rat, male and female

NOAEL : 100 mg/kg LOAEL : 200 mg/kg Application Route : Oral Exposure time : 28 Days

Method : OECD Test Guideline 422

Remarks : Based on data from similar materials

Species : Rat, male
LOAEL : 286 mg/kg
Application Route : Skin contact
Exposure time : 15 Days

Remarks : Based on data from similar materials

1,2-benzisothiazol-3(2H)-one:

Species : Rat, male and female

NOAEL : 15 mg/kg Application Route : Ingestion Exposure time : 28 d

Method : OECD Test Guideline 407

Symptoms : Irritation

Species : Rat, male and female

NOAEL : 69 mg/kg Application Route : Ingestion Exposure time : 90 d

Symptoms : Irritation, Reduced body weight

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Species : Dog NOAEL : 22 mg/kg Application Route : Oral





Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Species : Rat

NOAEL : 16.3 - 24.7 mg/kg Application Route : Skin contact

Species : Rat

NOAEL : 2.36 mg/m³ Application Route : Inhalation

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

pethoxamide (ISO):

No aspiration toxicity classification

Solvent naphtha (petroleum), heavy arom.:

May be fatal if swallowed and enters airways.

Experience with human exposure

Components:

Solvent naphtha (petroleum), heavy arom.:

Skin contact : Symptoms: Repeated exposure may cause skin dryness or

cracking.

Further information

Product:

Remarks : Solvents may degrease the skin.

Components:

Solvent naphtha (petroleum), heavy arom.:

Remarks : Vapour concentrations above recommended exposure levels

are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anaesthetic and may have other central nervous system effects. Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 6.4 mg/l

Exposure time: 96 h

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 40.2 mg/l

Exposure time: 48 h

Remarks: Based on data from similar materials

Toxicity to algae/aquatic

plants

EC50 (Desmodesmus subspicatus (green algae)): 0.168 mg/l

Exposure time: 72 h

Remarks: Based on data from similar materials

EC50 (Lemna gibba (duckweed)): 0.147 mg/l

Exposure time: 7 d

Remarks: Based on data from similar materials

Toxicity to soil dwelling or-

ganisms

LC50: 320 mg/kg

Exposure time: 14 d

Species: Eisenia fetida (earthworms)

Remarks: Based on data from similar materials

Toxicity to terrestrial organ-

isms

LC50: >200

Exposure time: 48 h

Species: Apis mellifera (bees)

Remarks: Information given is based on data obtained from

similar product.

LC50: >200

Exposure time: 48 h

Species: Apis mellifera (bees)

Remarks: Information given is based on data obtained from

similar product.

Components:

pethoxamide (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2.2 mg/l

Exposure time: 96 h

LC50 (Lepomis macrochirus (Bluegill sunfish)): 6.6 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 23 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (Selenastrum capricornutum (green algae)): 0.00195

mg/l

Exposure time: 72 h

EC50 (Lemna minor (duckweed)): 0.0095 mg/l

Exposure time: 14 d

M-Factor (Acute aquatic tox-

icity)

100

Toxicity to microorganisms : EC50 (Anabaena flos-aquae (cyanobacterium)): 9.4 mg/l

Exposure time: 96 h

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Toxicity to fish (Chronic tox-

icity)

NOEC: 1.1 mg/l

Exposure time: 28 d

Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 2.8 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

100

Toxicity to soil dwelling or-

ganisms

LC50: 527 mg/kg Exposure time: 14 d

Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organ-

isms

LD50: > 200 µg/bee

End point: Acute oral toxicity Species: Apis mellifera (bees)

LD50: > 200 µg/bee

End point: Acute contact toxicity Species: Apis mellifera (bees)

LD50: 1,800 mg/kg

Species: Colinus virginianus (Bobwhite quail)

terbuthylazine (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2.2 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia): 69.3 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (algae)): 0.012 mg/l

Exposure time: 72 h

EC50 (Lemna gibba (gibbous duckweed)): 0.0128 mg/l

Exposure time: 14 d

M-Factor (Acute aquatic tox-

icity)

10

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.09 mg/l Exposure time: 21 d

Species: Oncorhynchus mykiss (rainbow trout)

M-Factor (Chronic aquatic

toxicity)

10

Toxicity to soil dwelling or-

ganisms

LC50: > 141.7 mg/kg

Exposure time: 14 d

Species: Eisenia fetida (earthworms)

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Toxicity to terrestrial organ-

isms

: LD50: 1,236 mg/kg

Species: Colinus virginianus (Bobwhite quail)

LD50: > 22.6 µg/bee

Species: Apis mellifera (bees)

Solvent naphtha (petroleum), heavy arom.:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 2 - 5 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): 1.4 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EL50 (Pseudokirchneriella subcapitata (green algae)): 1 - 3

mg/l

Exposure time: 24 h

Method: OECD Test Guideline 201

Toxicity to microorganisms : LL50 (Tetrahymena pyriformis): 677.9 mg/l

Exposure time: 72 h

Test Type: Growth inhibition

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

EL50: 0.89 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Tristyrylphenol ethoxylates:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): 21 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to microorganisms

Remarks: No data available

ethane-1,2-diol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 72,860 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

IC50 (Pseudokirchneriella subcapitata (green algae)): 10,940

mg/l

Exposure time: 96 h

Toxicity to microorganisms : (activated sludge): > 1,995 mg/l

Exposure time: 30 min Method: ISO 8192

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Toxicity to fish (Chronic tox-

icity)

1,500 mg/l

Exposure time: 28 d

Species: Menidia peninsulae (tidewater silverside)

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

33,911 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 8.5 mg/l

Exposure time: 96 h

calcium dodecylbenzenesulphonate:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 10 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

LC50 (Pimephales promelas (fathead minnow)): 4.6 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)): 3.5 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae/aquatic

plants

NOEC (Pseudokirchneriella subcapitata (green algae)): 7.9

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

EC50 (Pseudokirchneriella subcapitata (green algae)): 65.4

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 (activated sludge): 500 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.23 mg/l Exposure time: 30 d

Species: Fish Method: QSAR

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.253 mg/l

Exposure time: 30 d Species: Daphnia Method: QSAR

Toxicity to soil dwelling or- : LC50: 1,000 mg/kg

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

ganisms Exposure time: 14 d

Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 207

Toxicity to terrestrial organ-

isms

LD50: 1,356 mg/kg Exposure time: 14 d

Species: Colinus virginianus (Bobwhite quail)

Method: OECD Test Guideline 223

naphthalene:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1.6 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 2.16 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Skeletonema costatum (marine diatom)): 0.4 - 0.5 mg/l

Exposure time: 72 h

M-Factor (Acute aquatic tox-

icity)

1

Toxicity to microorganisms : IC50 (Bacteria): 29 mg/l

Exposure time: 24 h

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.37 mg/l Exposure time: 40 d

Species: Oncorhynchus kisutch (coho salmon)

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.59 mg/l Exposure time: 125 d

Species: Daphnia pulex (Water flea)

M-Factor (Chronic aquatic

toxicity)

1

1,2-benzisothiazol-3(2H)-one:

Toxicity to fish : LC50 (Cyprinodon variegatus (sheepshead minnow)): 16.7

mg/l

Exposure time: 96 h Test Type: static test

LC50 (Oncorhynchus mykiss (rainbow trout)): 2.15 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 2.9 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.070

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Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

plants mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.04

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

M-Factor (Acute aquatic tox-

icity)

10

Toxicity to microorganisms : EC50 (activated sludge): 24 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

EC50 (activated sludge): 12.8 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.19 mg/l

Exposure time: 96 h

GLP: yes

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.16 mg/l

Exposure time: 48 h

NOEC (Daphnia magna (Water flea)): 0.1 mg/l

Exposure time: 21 Days

EC50 (Daphnia magna (Water flea)): 0.18 mg/l

Exposure time: 21 Days

Toxicity to algae/aquatic

plants

NOEC (Skeletonema costatum (marine diatom)): 0.00049 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 201

NOEC (Skeletonema costatum (marine diatom)): 0.019 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

EC50 (Skeletonema costatum (marine diatom)): 0.037 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 201

M-Factor (Acute aquatic tox-

icity)

100

Toxicity to microorganisms : NOEC (activated sludge): 0.91 mg/l

Exposure time: 3 h

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Method: OECD Test Guideline 209

GLP: yes

EC50 (activated sludge): 4.5 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

GLP: yes

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.02 mg/l

Exposure time: 35 d

Species: Danio rerio (zebra fish) Method: OECD Test Guideline 210

GLP: yes

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.1 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Chronic Toxicity Value: 0.18 mg/l

Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

100

12.2 Persistence and degradability

Components:

pethoxamide (ISO):

Biodegradability : Remarks: Not readily biodegradable.

Solvent naphtha (petroleum), heavy arom.:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 58.6 % Exposure time: 28 d

Method: OECD Test Guideline 301F

Remarks: Based on data from similar materials

Tristyrylphenol ethoxylates:

Biodegradability : Result: Not readily biodegradable.

Biodegradation: 8 % Exposure time: 28 d

Method: OECD Test Guideline 301

ethane-1,2-diol:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 90 - 100 %

Exposure time: 10 d

Method: OECD Test Guideline 301A

Alcohols, C9-11-iso-, C10-rich, ethoxylated:

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

Biodegradability : Result: Readily biodegradable.

calcium dodecylbenzenesulphonate:

Biodegradability : Result: Readily biodegradable.

Method: OECD Test Guideline 301E

naphthalene:

Biodegradability : Result: Inherently biodegradable.

Biodegradation: 67 % Exposure time: 12 d

1,2-benzisothiazol-3(2H)-one:

Biodegradability : Result: rapidly biodegradable

Method: OECD Test Guideline 301C

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Biodegradability : Result: Readily biodegradable.

12.3 Bioaccumulative potential

Components:

pethoxamide (ISO):

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-

octanol/water pH: 5

terbuthylazine (ISO):Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-

octanol/water

log Pow: 3.4

Solvent naphtha (petroleum), heavy arom.:

Bioaccumulation : Remarks: The product/substance has a potential to bioaccu-

log Pow: 2.96 (20 °C)

mulate.

log Pow: 3.72

Partition coefficient: n-

octanol/water Method: QSAR

Tristyrylphenol ethoxylates:

Partition coefficient: n-

octanol/water

Remarks: No data available

ethane-1,2-diol:

Partition coefficient: n-

octanol/water

log Pow: -1.36

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

calcium dodecylbenzenesulphonate:

Bioaccumulation : Species: Fish

Bioconcentration factor (BCF): 70.79

Method: QSAR

Partition coefficient: n-

octanol/water

log Pow: 4.77 (25 °C)

naphthalene:

Bioaccumulation : Species: Cyprinus carpio (Carp)

Bioconcentration factor (BCF): 168

Partition coefficient: n-

octanol/water

log Pow: 3.7

1,2-benzisothiazol-3(2H)-one:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Exposure time: 56 d

Bioconcentration factor (BCF): 6.62 Method: OECD Test Guideline 305

Remarks: This substance is not considered to be persistent,

bioaccumulating and toxic (PBT).

Partition coefficient: n-

octanol/water

log Pow: 0.7 (20 °C)

pH: 7

log Pow: 0.99 (20 °C)

pH: 5

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Bioaccumulation : Exposure time: 28 d

Bioconcentration factor (BCF): < 54 Method: OECD Test Guideline 305

Partition coefficient: n-

octanol/water

: Pow: 0.75

12.4 Mobility in soil

Components:

pethoxamide (ISO):

Distribution among environ-

mental compartments

: Remarks: Moderately mobile in soils

Solvent naphtha (petroleum), heavy arom.:

Distribution among environ-

mental compartments

Remarks: Expected to partition to sediment and wastewater

solids. Moderately volatile.

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

1,2-benzisothiazol-3(2H)-one:

Distribution among environ: Koc: 9.33, log Koc: 0.97

mental compartments Method: OECD Test Guideline 121

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.

12.6 Other adverse effects

Product:

Endocrine disrupting poten-

tial

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 infor-

mation

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 chemi-

cal 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.

Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number

IMDG : UN 3082 IATA : UN 3082

14.2 UN proper shipping name

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

N.O.S. (Pethoxamide, Terbuthylazine, Solvent naphtha

(petroleum), heavy arom.)

IATA : Environmentally hazardous substance, liquid, n.o.s.

(Pethoxamide, Terbuthylazine, Solvent naphtha

(petroleum), heavy arom.)

14.3 Transport hazard class(es)

IMDG : 9
IATA : 9

14.4 Packing group

IMDG

Packing group : III Labels : 9

EmS Code : F-A, S-F

IATA (Cargo)

Packing instruction (cargo : 964

aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

IATA (Passenger)

Packing instruction (passen: 964

ger aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

14.5 Environmental hazards

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.

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

SECTION 15: Regulatory information

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

The ingredients 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.

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not

on the Canadian DSL nor NDSL.

2-CHLORO-N-(2-ETHOXYETHYL)-N-(2-METHYL-1-

PHENYLPROP-1-ENYL)ACETAMIDE

Ethanol, 2,2',2"-nitrilotris-, compd. with .alpha.-[2,4,6-tris(1-phenylethyl)phenyl]-.omega.-hydroxypoly(oxy-1,2-ethanediyl)

phosphate

terbuthylazine (ISO)

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

TECI: Not in compliance with the inventory

15.2 Chemical Safety Assessment

SECTION 16: Other information

Full text of H-Statements

H301 : Toxic if swallowed. H302 : Harmful if swallowed.

H304 : May be fatal if swallowed and enters airways.

H310 : Fatal in contact with skin.

H314 : Causes severe skin burns and eye damage.

H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction. H318 : Causes serious eye damage.

H330 : Fatal if inhaled.

H351 : Suspected of causing cancer.

H373 : May cause damage to organs through prolonged or repeated

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

exposure.

H373 : May cause damage to organs through prolonged or repeated

exposure if swallowed.

H400 : Very toxic to aquatic life.

H410
 H411
 Toxic to aquatic life with long lasting effects.
 H412
 Harmful to aquatic life with long lasting effects.

EUH066 : Repeated exposure may cause skin dryness or cracking.

EUH071 : Corrosive to the respiratory tract.

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.

Carc.

Eye Dam.

Skin Corr.

Skin Irrit.

Skin Sens.

Skin Aspiration hazard

Carcinogenicity

Serious eye damage

Skin corrosion

Skin irritation

Skin sensitization

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

91/322/EEC : Europe. Commission Directive 91/322/EEC on establishing

indicative limit values

ZA OEL : South Africa. The Regulations for Hazardous Chemical

Agents, Occupational Exposure Limits

2000/39/EC / TWA : Limit Value - eight hours 2000/39/EC / STEL : Short term exposure limit 91/322/EEC / TWA : Limit Value - eight hours

ZA OEL / OEL-RL : Occupational Exposure Limit Restricted limit - 8- hour expo-

sure or equivalent (12 hour shifts)

ZA OEL / OEL- RL STEL/C : Occupational Exposure Limit Restricted limit - Short term oc-

cupational exposure limits / ceiling limits

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

KOBAN™ T Herbicide



Version Revision Date: SDS Number: Date of last issue: -

2.0 28.07.2022 50000675 Date of first issue: 01.09.2020

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; 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

Other information :

Classification of the mixture: Classification procedure:

Acute Tox. 4	H302	Based on product data or assessment
Eye Irrit. 2	H319	Based on product data or assessment
Skin Sens. 1	H317	Calculation method
STOT RE 2	H373	Based on product data or assessment
Asp. Tox. 1	H304	Calculation method
Aquatic Acute 1	H400	Based on product data or assessment
Aquatic Chronic 1	H410	Calculation method

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