

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	10.12.2024	50000049	Date of first issue: 10.12.2024

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

1.1 Product identifier

Product name CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

Other means of identification

Product code 50000049

Unique Formula Identifier (UFI) : W72X-U28T-KN4G-MYFC

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

Use of the Substance/Mixture : Herbicide

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

1.3 Details of the supplier of the safety data sheet

Supplier Address FMC Agricultural Solutions A/S
Thyborønvej 78
DK-7673 Harbøre
Denmark

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

1.4 Emergency telephone number

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

Medical emergency:
Denmark: +45 82 12 12 12

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SECTION 2: Hazards identification



2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms	:	 
Signal word	:	Warning
Hazard statements	:	H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	:	Prevention: P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P302 + P352 IF ON SKIN: Wash with plenty of water and soap. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P391 Collect spillage. Disposal: P501 Dispose of contents/container as hazardous waste in accordance with local regulations.

Hazardous components which must be listed on the label:

2,4,7,9-tetramethyldec-5-yne-4,7-diol

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Additional Labelling

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

For special phrases (SP) and safety intervals, consult the label.

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.

Ecological information: 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.

Toxicological information: 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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
carfentrazone-ethyl (ISO)	128639-02-1 607-309-00-5	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 30 - <= 50
metsulfuron-methyl (ISO)	74223-64-6 613-139-00-2	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1.000 M-Factor (Chronic aquatic toxicity): 1.000	>= 2,5 - <= 10

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edetic acid	60-00-4 200-449-4 607-429-00-8	Acute Tox. 4; H332 Eye Irrit. 2; H319 STOT RE 2; H373 (Respiratory Tract)	$\geq 1 - \leq 10$
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3 204-809-1	Eye Dam. 1; H318 Skin Sens. 1B; H317 Aquatic Chronic 3; H412	$\geq 1 - \leq 2,5$
Substances with a workplace exposure limit :			
kaolin	1332-58-7 310-194-1		$\geq 1 - < 10$

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Do not leave the victim unattended.
Show this safety data sheet to the doctor in attendance.
Move out of dangerous area.
- Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.
- If inhaled : Remove to fresh air.
If unconscious, place in recovery position and seek medical advice.
If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.
- In case of skin contact : If on clothes, remove clothes.
If on skin, rinse well with water.
Wash off with soap and plenty of water.
Get medical attention immediately if irritation develops and persists.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
Protect unharmed eye.
If eye irritation persists, consult a specialist.
- If swallowed : Do not induce vomiting without medical advice.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

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Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	: Irritation Allergic reactions
Risks	: May cause an allergic skin reaction. Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	: Treat symptomatically.
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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Dry chemical, CO ₂ , water spray or regular foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: Do not spread spilled material with high-pressure water streams. 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	: Fire may produce irritating, corrosive and/or toxic gases. Nitrogen oxides (NO _x) Carbon oxides Chlorine compounds Fluorine compounds Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters	: Firefighters should wear protective clothing and self-contained breathing apparatus.
Specific extinguishing methods	: Remove undamaged containers from fire area if it is safe to do so. Use a water spray to cool fully closed containers.
Further information	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.
Do not touch or walk through the spilled material.
If it can be safely done, stop the leak.
Ensure adequate ventilation.
Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
Never return spills in original containers for re-use.
Mark the contaminated area with signs and prevent access to unauthorized personnel.
Only qualified personnel equipped with suitable protective equipment may intervene.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Keep in suitable, closed containers for disposal.

Never return spills in original containers for re-use.
Pick up and transfer to properly labelled containers.
Collect as much of the spill as possible with a suitable absorbent material.

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 : 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.
Dispose of rinse water in accordance with local and national regulations.

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Smoking, eating and drinking should be prohibited in the application area.

For personal protection see section 8.

Avoid contact with skin and eyes.

Avoid exposure - obtain special instructions before use.

Do not breathe vapours/dust.

Avoid formation of respirable particles.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Provide appropriate exhaust ventilation at places where dust is formed. Avoid dust formation.

Hygiene measures : Wash hands before breaks and at the end of workday. When using do not smoke. When using do not eat or drink. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

General industrial hygiene practice. Avoid contact with skin, eyes and clothing. Do not inhale aerosol.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed in a dry and well-ventilated place.

Further information on storage conditions : The product is stable under normal conditions of warehouse storage. Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

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

7.3 Specific end use(s)

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

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
silica gel	112926-00-8	GV (total)	0,3 mg/m ³ (Silica)	DK OEL
		GV (respirable)	0,1 mg/m ³ (Silica)	DK OEL
Further information: Means that the substance is included in the list of substances considered carcinogenic.				
		S (total powder and dust)	0,6 mg/m ³ (Silica)	DK OEL
		S (inhalable fraction)	0,2 mg/m ³ (Silica)	DK OEL
kaolin	1332-58-7	GV (Respirable dust)	2 mg/m ³	DK OEL
		S (Respirable dust)	4 mg/m ³	DK OEL
		TWA (Respirable dust)	0,1 mg/m ³	2004/37/EC
Further information: Carcinogens or mutagens				

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

Substance name	End Use	Exposure routes	Potential health effects	Value
silica gel	Workers	Inhalation	Long-term systemic effects	4 mg/m ³
edetic acid	Workers	Inhalation	Long-term local effects	1,5 mg/m ³
	Workers	Inhalation	Acute local effects	3 mg/m ³
	Consumers	Inhalation	Long-term local effects	0,600 mg/m ³
	Consumers	Inhalation	Acute local effects	1,2 mg/m ³
	Consumers	Oral	Long-term systemic effects	25 mg/kg bw/day
2,4,7,9-tetramethyldec-5-yne-4,7-diol	Workers	Inhalation	Long-term systemic effects	1,76 mg/m ³
	Workers	Dermal	Long-term systemic effects	0,5 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0,43 mg/m ³
	Consumers	Dermal	Long-term systemic effects	0,25 mg/kg
	Consumers	Oral	Long-term systemic effects	0,25 mg/kg

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

Substance name	Environmental Compartment	Value
edetic acid	Fresh water	2,2 mg/l
	Intermittent use/release	1,2 mg/l
	Marine water	0,220 mg/l
	Sewage treatment plant	43 mg/l
	Soil	0,720 mg/kg
2,4,7,9-tetramethyldec-5-yne-4,7-diol	Fresh water	0,04 mg/l
	Marine water	0,004 mg/l
	Fresh water sediment	0,32 mg/kg dry weight (d.w.)
	Marine sediment	0,032 mg/kg dry weight (d.w.)
	Soil	0,028 mg/kg dry weight (d.w.)

8.2 Exposure controls

Personal protective equipment

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

Hand protection

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

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Dust impervious protective suit

Respiratory protection : In case of dust exposure wear suitable personal respiratory protection and protective suit.

Protective measures : Plan first aid action before beginning work with this product. Always have on hand a first-aid kit, together with proper instructions.
Wear suitable protective equipment.
When using do not eat, drink or smoke.

In the context of professional plant protection use as recommended, the end user must refer to the label and the instructions for use.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: solid
Form	: granules
Colour	: tan
Odour	: mild, aromatic
Odour Threshold	: No data available
Melting point/ range	: No data available
Boiling point/boiling range	: No data available
Flammability	: The product is not flammable.
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
pH	: 8,3 (20 °C) Concentration: 1 % In a 1% aqueous dispersion
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Solubility(ies)	
Water solubility	: dispersible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Density	: No data available
Bulk density	: 0,68 g/cm ³
Relative vapour density	: No data available
Particle characteristics	
Particle size	: No data available
Particle Size Distribution	: No data available
Shape	: No data available

9.2 Other information

Explosives	: Not explosive
Oxidizing properties	: The product is not oxidizing. Non-oxidizing
Self-ignition	: No data available
Evaporation rate	: No data available
Molecular weight	: Not applicable

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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.
Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.
Avoid extreme temperatures
Avoid dust formation.

10.5 Incompatible materials

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

10.6 Hazardous decomposition products

Stable under recommended storage conditions.

SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	: LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 401 GLP: yes Remarks: (Data on the product itself) Information source: Internal study report
Acute inhalation toxicity	: LC50 (Rat): > 5,09 mg/l Exposure time: 4 h Test atmosphere: dust/mist Remarks: (Data on the product itself) Information source: Data provided by an external source.
Acute dermal toxicity	: LD50 (Rat): > 2.000 mg/kg Method: OECD Test Guideline 402 GLP: yes

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Remarks: (Data on the product itself)
Information source: Internal study report

Components:

carfentrazone-ethyl (ISO):

- Acute oral toxicity : LD50 (Rat, female): 5.143 mg/kg
Method: US EPA Test Guideline OPP 81-1
Symptoms: Tremors
GLP: yes
- LD50 (Rat, female): > 5.000 mg/kg
Method: OECD Test Guideline 425
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity
Remarks: no mortality
- Acute inhalation toxicity : LC50 (Rat, male and female): > 5,09 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: EPA OPP 81 - 3
Symptoms: Tremors, chromodacryorrhea, nasal discharge
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: no mortality
- Acute dermal toxicity : LD50 (Rat, male and female): > 4.000 mg/kg
Method: US EPA Test Guideline OPP 81-2
GLP: yes
Assessment: The component/mixture is minimally toxic after single contact with skin.
Remarks: no mortality

metsulfuron-methyl (ISO):

- Acute oral toxicity : LD50 (Rat, male and female): > 5.000 mg/kg
Method: US EPA Test Guideline OPP 81-1
Assessment: The substance or mixture has no acute oral toxicity
- LD50 (Rat, female): > 5.000 mg/kg
Method: OECD Test Guideline 425
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity
Remarks: no mortality
- Acute inhalation toxicity : LC50 (Rat, male and female): > 5,11 mg/l
Exposure time: 4 h

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Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Symptoms: Breathing difficulties
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: no mortality

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5.000 mg/kg
Method: OECD Test Guideline 402
Symptoms: Irritation
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: no mortality

edetic acid:

Acute oral toxicity : LD50 (Rat, male and female): 4.500 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LOAEC (Rat): 0,03 mg/l
Exposure time: 6 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 412
Assessment: The component/mixture is moderately toxic after short term inhalation.

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Acute oral toxicity : LD50 (Rat, male): 12.900 mg/kg

Acute inhalation toxicity : LC0 (Rat, male and female): 1.000 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist
Symptoms: Irritation
Remarks: no mortality

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402

kaolin:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401

LD50: > 2.000 mg/kg
Method: OECD Test Guideline 420
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50: 5,07 mg/l

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Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 436

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg
LD50: > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Not classified based on available information.

Product:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes
Remarks : (Data on the product itself)
Information source: Internal study report

Components:

carfentrazone-ethyl (ISO):

Species : Rabbit
Assessment : Not classified as irritant
Method : US EPA Test Guideline OPP 81-5
Result : slight irritation
GLP : yes

metsulfuron-methyl (ISO):

Species : Rabbit
Assessment : Not classified as irritant
Method : US EPA Test Guideline OPP 81-5
Result : No skin irritation

edetic acid:

Species : Rabbit
Result : No skin irritation

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Species : Rabbit
Method : OECD Test Guideline 404
Result : slight irritation

kaolin:

Method : OECD Test Guideline 404

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Result : No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Species	: Rabbit
Assessment	: Irritating to eyes.
Method	: OECD Test Guideline 405
Result	: Eye irritation
GLP	: yes
Remarks	: Information source: Internal study report (Data on the product itself)

Components:

carfentrazone-ethyl (ISO):

Species	: Rabbit
Assessment	: Not classified as irritant
Method	: EPA OPP 81-4
Result	: slight irritation
GLP	: yes

metsulfuron-methyl (ISO):

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

edetic acid:

Species	: Rabbit
Result	: Irritation to eyes, reversing within 21 days

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Species	: Rabbit
Result	: Irreversible effects on the eye

kaolin:

Method	: OECD Test Guideline 405
Result	: No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

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Product:

Test Type	: Maximisation Test
Species	: Guinea pig
Assessment	: May cause sensitisation by skin contact.
Method	: OECD Test Guideline 406
Result	: May cause sensitisation by skin contact.
GLP	: yes
Remarks	: (Data on the product itself)

Information source: Internal study report

Components:

carfentrazone-ethyl (ISO):

Exposure routes	: Skin contact
Species	: Guinea pig
Method	: US EPA Test Guideline OPP 81-6
Result	: Does not cause skin sensitisation.
GLP	: yes

Test Type	: Local lymph node assay (LLNA)
Species	: Mouse
Method	: OECD Test Guideline 429
Result	: Does not cause skin sensitisation.
GLP	: yes

metsulfuron-methyl (ISO):

Test Type	: Maximisation Test
Exposure routes	: Skin contact
Species	: Guinea pig
Method	: US EPA Test Guideline OPPTS 870.2600
Result	: Not a skin sensitizer.

edetic acid:

Test Type	: Maximisation Test
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: Does not cause skin sensitisation.
Remarks	: Based on data from similar materials

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Test Type	: Local lymph node assay (LLNA)
Exposure routes	: Skin contact
Species	: Mouse
Method	: OECD Test Guideline 429
Result	: Probability or evidence of low to moderate skin sensitisation rate in humans

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	10.12.2024	50000049	Date of first issue: 10.12.2024

kaolin:

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

Germ cell mutagenicity

Not classified based on available information.

Product:

Germ cell mutagenicity- Assessment	:	Contains no ingredient listed as a mutagen
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Components:

carfentrazone-ethyl (ISO):

Genotoxicity in vitro	:	Test Type: reverse mutation assay Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative GLP: yes Test Type: Ames test Metabolic activation: with and without metabolic activation Method: U.S. EPA 84-2 Result: negative GLP: yes Test Type: Ames test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative GLP: yes
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse (male and female) Result: negative GLP: yes

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

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1.0	10.12.2024	50000049	Date of first issue: 10.12.2024

Test Type: unscheduled DNA synthesis assay
Species: Rat (male)
Result: negative
GLP: yes

Germ cell mutagenicity- Assessment : No genotoxic potential

metsulfuron-methyl (ISO):

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Metabolic activation: Metabolic activation
Result: positive
GLP: yes

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Result: negative

edetic acid:

Genotoxicity in vitro : Test Type: reverse mutation assay
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test
Result: negative
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male)
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

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

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

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1.0	10.12.2024	50000049	Date of first issue: 10.12.2024

Genotoxicity in vitro : Test Type: gene mutation test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

kaolin:

Genotoxicity in vitro : Test Type: Ames test
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Remarks: No data available

Carcinogenicity

Not classified based on available information.

Product:

Carcinogenicity - Assessment : Contains no ingredient listed as a carcinogen

Components:

carfentrazone-ethyl (ISO):

Species : Rat, female
Application Route : Ingestion
Exposure time : 2 Years
NOAEL : 3 mg/kg bw/day
LOAEL : 12 mg/kg bw/day
Method : U.S. EPA 83-5
Result : no increase in tumors observed
Target Organs : Liver
GLP : yes

Species : Mouse, female
Application Route : Ingestion
Exposure time : 80 weeks
NOAEL : 10 mg/kg bw/day
LOAEL : 110 mg/kg bw/day
Method : U.S. EPA 83-5
Result : no increase in tumors observed
Target Organs : Liver
GLP : yes

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

metsulfuron-methyl (ISO):

Species : Rat, male and female
Exposure time : 104 weeks
NOAEL : 500 ppm

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	10.12.2024	50000049	Date of first issue: 10.12.2024

Result : negative

Species : Mouse, male and female
Exposure time : 18 month(s)
NOAEL : 5.000 ppm
Result : negative

edetic acid:

Species : Rat, male and female
Application Route : Oral
Exposure time : 103 weeks
Dose : 248, 495 mg/kg body weight
NOAEL : >= 500 mg/kg bw/day
Result : negative
Remarks : Based on data from similar materials

Species : Mouse, male and female
Application Route : Oral
Exposure time : 103 weeks
Dose : 469, 938 mg/kg body weight
NOAEL : 938 mg/kg bw/day
Result : negative
Remarks : Based on data from similar materials

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

Reproductive toxicity

Not classified based on available information.

Product:

Reproductive toxicity - Assessment : Contains no ingredient listed as toxic to reproduction

Components:

carfentrazone-ethyl (ISO):

Effects on fertility : Test Type: Multi-generation study
Species: Rat, male and female
Application Route: Ingestion
Fertility: NOEL: 4.000 ppm
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat, female
Application Route: Oral
General Toxicity Maternal: NOEL: 100 mg/kg bw/day
Embryo-foetal toxicity: NOEL: 600 mg/kg bw/day
Result: negative

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

Version 1.0	Revision Date: 10.12.2024	SDS Number: 50000049	Date of last issue: - Date of first issue: 10.12.2024
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Test Type: Embryo-foetal development
Species: Rabbit, female
Application Route: Oral
General Toxicity Maternal: NOEL: 150 mg/kg bw/day
Embryo-foetal toxicity: NOEL: > 300 mg/kg bw/day
Result: negative

Reproductive toxicity - Assessment : Animal testing showed no reproductive toxicity.

metsulfuron-methyl (ISO):

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rabbit, female
Application Route: Ingestion
Symptoms: Maternal effects
Result: negative

Test Type: Embryo-foetal development
Species: Rat, female
Application Route: Ingestion
Symptoms: Maternal effects
Result: negative

edetic acid:

Effects on fertility : Test Type: Multi-generation study
Species: Rat, male and female
Application Route: Oral
Dose: 0, 50, 125, 250 milligram per kilogram
General Toxicity - Parent: NOAEL: >= 250 mg/kg body weight
General Toxicity F1: NOAEL: >= 250 mg/kg body weight
General Toxicity F2: NOAEL: >= 250 mg/kg body weight
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Species: Rat
Application Route: Oral
Dose: 967 milligram per kilogram
Duration of Single Treatment: 21 d
General Toxicity Maternal: LOAEL: >= 967 mg/kg body weight
Teratogenicity: NOAEL: >= 967 mg/kg body weight
Symptoms: Diarrhoea
Result: negative

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

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

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1.0	10.12.2024	50000049	Date of first issue: 10.12.2024

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Result: negative

Effects on foetal development : Test Type: reproductive and developmental toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

kaolin:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

STOT - single exposure

Not classified based on available information.

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Components:

carfentrazone-ethyl (ISO):

Remarks : No significant adverse effects were reported

kaolin:

Remarks : No significant adverse effects were reported

STOT - repeated exposure

Not classified based on available information.

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Components:

carfentrazone-ethyl (ISO):

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

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

Exposure routes	: Inhalation
Target Organs	: Respiratory Tract
Assessment	: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

kaolin:

Assessment	: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
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Repeated dose toxicity

Components:

carfentrazone-ethyl (ISO):

Species	: Mouse, male
NOAEL	: 143 mg/kg
LOAEL	: 571 mg/kg
Application Route	: Oral
Exposure time	: 90 days
Method	: EPA 82-1
GLP	: yes
Target Organs	: Blood, Liver

Species	: Dog, male and female
NOEL	: 150 mg/kg
LOAEL	: 500 mg/kg
Application Route	: Oral
Exposure time	: 90 days
Target Organs	: Blood

Species	: Dog, male and female
NOEL	: 50 mg/kg
NOAEL	: 150 mg/kg
LOAEL	: 500 mg/kg
Application Route	: Oral
Exposure time	: 12 months
GLP	: yes
Target Organs	: Blood

Species	: Rat, male
NOAEL	: 58 mg/kg
Exposure time	: 90 d
Method	: EPA 82-1
GLP	: yes

metsulfuron-methyl (ISO):

Species	: Rat, male and female
NOEL	: 1000 ppm
Application Route	: Oral - feed

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

Version	Revision Date:	SDS Number:	Date of last issue: -
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Exposure time : 90 days
Symptoms : Reduced body weight

edetic acid:

Species : Rat, male and female
NOAEL : ≥ 500 mg/kg
Application Route : Oral
Exposure time : 103 weeks
Dose : 250, 500 mg/kg bw/day
Remarks : Based on data from similar materials

Species : Mouse, male and female
NOAEL : ≥ 500 mg/kg
Application Route : Oral
Exposure time : 103 weeks
Dose : 250, 500 mg/kg bw/day
Remarks : Based on data from similar materials

Species : Rat, male and female
NOAEL : 0,003 mg/l
Application Route : inhalation (dust/mist/fume)
Exposure time : 90d
Dose : 0.5, 3, 15 mg/m³
Method : OECD Test Guideline 413
Remarks : Based on data from similar materials

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Species : Rat, male and female
NOAEL : 150 mg/kg
Application Route : Ingestion
Exposure time : 30 d
Method : OECD Test Guideline 408

kaolin:

Remarks : No data available

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Components:

carfentrazone-ethyl (ISO):

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

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

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11.2 Information on other hazards

Endocrine disrupting properties

Product:

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

Neurological effects

Components:

carfentrazone-ethyl (ISO):

No neurotoxicity observed in animal studies

metsulfuron-methyl (ISO):

No neurotoxicity observed in animal studies

Further information

Product:

Remarks : No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4,3 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
GLP: yes
Remarks: (Data on the product itself)
Information source: Internal study report

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes
Remarks: Information source: Internal study report
(Data on the product itself)

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,14 mg/l
Exposure time: 72 h
Method: Directive 67/548/EEC, Annex V, C.3.

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

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GLP: yes
Remarks: (Data on the product itself)
Information source: Internal study report

Components:

carfentrazone-ethyl (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2,55 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203

LC50 (Menidia beryllina (Silverside)): 1,14 mg/l
Exposure time: 96 h
Test Type: flow-through test

LC50 (Oncorhynchus mykiss (rainbow trout)): 1,6 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: EPA OPP 72-1

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 9,8 mg/l
End point: Immobilization
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: No toxicity at the limit of solubility

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 0,0133 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

NOEC (Selenastrum capricornutum (green algae)): 0,00933 mg/l
End point: Growth rate
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

EbC50 (Selenastrum capricornutum (green algae)): 16 µg/l
Exposure time: 120 h

EC50 (Navicula pelliculosa (Diatom)): 12 µg/l
Exposure time: 72 h
Test Type: static test

EC50 (Skeletonema costatum (Diatom)): 15 µg/l
Exposure time: 72 h
GLP: yes

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

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M-Factor (Acute aquatic toxicity)	:	10
Toxicity to microorganisms	:	NOEC (activated sludge): 1.000 mg/l Test Type: Respiration inhibition Method: OECD Test Guideline 209
Toxicity to fish (Chronic toxicity)	:	NOEC: 22 µg/l Exposure time: 89 d Species: Oncorhynchus mykiss (rainbow trout) Test Type: Early Life-Stage Method: OECD Test Guideline 210 GLP: yes NOEC: 0,118 mg/l Exposure time: 102 d Species: Oncorhynchus mykiss (rainbow trout) Test Type: flow-through test Method: US EPA Test Guideline OPP 72-4
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0,309 mg/l End point: Growth Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202
M-Factor (Chronic aquatic toxicity)	:	10
Toxicity to soil dwelling organisms	:	NOEC: 820 mg/kg Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 216 Remarks: No significant adverse effect on nitrogen mineralization. Method: OECD Test Guideline 217 Remarks: No significant adverse effect on carbon mineralization.
Toxicity to terrestrial organisms	:	LD50: > 5.620 ppm End point: Acute oral toxicity Species: Anas platyrhynchos (Mallard duck) Remarks: Dietary LD50: 2.250 mg/kg End point: Acute oral toxicity Species: Colinus virginianus (Bobwhite quail) NOEL: 1000 ppm

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

Version	Revision Date:	SDS Number:	Date of last issue: -
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End point: Reproduction Test
Species: *Colinus virginianus* (Bobwhite quail)

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)

Ecotoxicology Assessment

Toxicity Data on Soil : Harmful to the soil environment.

metsulfuron-methyl (ISO):

Toxicity to fish : LC50 (*Poecilia reticulata* (guppy)): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 120 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

EC50 (*Daphnia magna* (Water flea)): 43,1 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (*Anabaena flos-aquae* (cyanobacterium)): 65,7 µg/l
Exposure time: 96 h
Method: OPPTS 850.5400
GLP: yes

NOEC (*Anabaena flos-aquae* (cyanobacterium)): 45 µg/l
Exposure time: 96 h
Method: OPPTS 850.5400
GLP: yes

ErC50 (*Selenastrum capricornutum* (green algae)): 157 µg/l
Exposure time: 72 h
GLP: yes

NOEC (*Selenastrum capricornutum* (green algae)): 50 µg/l
Exposure time: 72 h
GLP: yes

M-Factor (Acute aquatic toxicity) : 1.000

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

Version	Revision Date:	SDS Number:	Date of last issue: -
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Toxicity to fish (Chronic toxicity) : NOEC: 68 mg/l
Exposure time: 21 d
Species: Oncorhynchus mykiss (rainbow trout)

NOEC: 10 mg/l
End point: reproduction
Exposure time: 21 d
Species: Pimephales promelas (fathead minnow)
Method: OECD Test Guideline 229
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 3,13 mg/l
End point: reproduction
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Method: OECD Test Guideline 211

NOEC: 0,5 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 1.000

Toxicity to soil dwelling organisms : NOEC: 6 mg/kg
Exposure time: 56 d
Species: Eisenia fetida (earthworms)

NOEC: 5,6 mg/kg
End point: reproduction
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 222
GLP:yes

Method: OECD Test Guideline 216
Remarks: No significant adverse effect on nitrogen mineralization.

Toxicity to terrestrial organisms : LD50: > 50 µg/bee
Exposure time: 48 h
End point: Acute contact toxicity
Species: Apis mellifera (bees)
Method: OEPP/EPPO Test Guideline 170

LD50: > 50 µg/bee
Exposure time: 48 h
End point: Acute oral toxicity
Species: Apis mellifera (bees)
Method: OEPP/EPPO Test Guideline 170

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	10.12.2024	50000049	Date of first issue: 10.12.2024

LD50: > 2.510 mg/kg
Species: *Anas platyrhynchos* (Mallard duck)

NOEC: 1.000 mg/kg
End point: Reproduction Test
Species: *Colinus virginianus*

NOEC: 1.000 ppm
End point: Reproduction Test
Species: *Anas platyrhynchos* (Mallard duck)
Method: OECD Test Guideline 206

edetic acid:

- Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 100 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials
- Toxicity to algae/aquatic plants : EC50 (*Pseudokirchneriella subcapitata* (algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials
- NOEC (*Pseudokirchneriella subcapitata* (algae)): 79,4 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials
- Toxicity to microorganisms : EC10 (activated sludge): > 500 mg/l
Exposure time: 30 min
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials
- Toxicity to fish (Chronic toxicity) : NOEC: 35,1 mg/l
Exposure time: 35 d
Species: *Danio rerio* (zebra fish)
Method: OECD Test Guideline 210
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 25 mg/l
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)
Test Type: semi-static test

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Remarks: Based on data from similar materials

Toxicity to soil dwelling organisms : EC50: 156,46 mg/kg
Exposure time: 14 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 207

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 42 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 91 mg/l
Exposure time: 48 h
Test Type: Immobilization

Toxicity to microorganisms : EC50 (activated sludge): 680 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition

kaolin:

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

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.000 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms :
Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: No data available

12.2 Persistence and degradability

Product:

Biodegradability : Result: Not readily biodegradable.
Remarks: Estimation based on data obtained on active ingredient.
Product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water treatment plants.

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CARFENTRAZONE-ETHYL 400 G/KG + METSULFURON-METHYL 100 G/KG WG

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Components:

carfentrazone-ethyl (ISO):

Biodegradability : Result: Not readily biodegradable.

metsulfuron-methyl (ISO):

Biodegradability : Result: Not readily biodegradable.
Remarks: Primary degradation half-lives vary with circumstances, from a few weeks to a few months in aerobic soil and water.

edetic acid:

Biodegradability : Result: Inherently biodegradable.

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 5 %
Exposure time: 28 d

kaolin:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Does not bioaccumulate.
Estimation based on data obtained on active ingredient.

Components:

carfentrazone-ethyl (ISO):

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)
Exposure time: 28 d
Bioconcentration factor (BCF): 176
Method: OECD Test Guideline 305E
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 3,7 (20 °C)

metsulfuron-methyl (ISO):

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Exposure time: 28 d
Bioconcentration factor (BCF): < 1
Remarks: Does not bioaccumulate.

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Partition coefficient: n-octanol/water : Pow: 0,018 (25 °C)
log Pow: -1,7 (25 °C)
pH: 7

edetic acid:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Exposure time: 28 d
Bioconcentration factor (BCF): 1,8
Remarks: Based on data from similar materials

Partition coefficient: n-octanol/water : log Pow: 0,13

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Bioaccumulation : Bioconcentration factor (BCF): 24
Remarks: Substance is not very persistent and very bioaccumulative (vPvB).

Partition coefficient: n-octanol/water : log Pow: 2,8 (22 °C)

kaolin:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : Remarks: Not applicable

12.4 Mobility in soil

Product:

Distribution among environmental compartments : Remarks: No data is available on the product itself.

Components:

carfentrazone-ethyl (ISO):

Distribution among environmental compartments : Remarks: The substance/mixture and its soil metabolites have a potential for being mobile, but were not detected in a field leaching study.

Koc: 866, log Koc: 2,93

kaolin:

Distribution among environmental compartments : Remarks: Low mobility in soil

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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 Endocrine disrupting properties

Product:

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

12.7 Other adverse effects

Product:

Additional ecological information : No other ecological effects to be specially mentioned. See product label for additional application instructions relating to environmental precautions.

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

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. Do not re-use empty containers. Packaging that is not properly emptied must be disposed of as the unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number or ID number

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ADN	:	UN 3077
ADR	:	UN 3077
RID	:	UN 3077
IMDG	:	UN 3077
IATA	:	UN 3077

14.2 UN proper shipping name

ADN	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Carfentrazone-ethyl, Metsulfuron-methyl)
ADR	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Carfentrazone-ethyl, Metsulfuron-methyl)
RID	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Carfentrazone-ethyl, Metsulfuron-methyl)
IMDG	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Carfentrazone-ethyl, Metsulfuron-methyl)
IATA	:	Environmentally hazardous substance, solid, n.o.s. (Carfentrazone-ethyl, Metsulfuron-methyl)

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	:	M7
Hazard Identification Number	:	90
Labels	:	9
ADR		
Packing group	:	III
Classification Code	:	M7
Hazard Identification Number	:	90
Labels	:	9
Tunnel restriction code	:	(-)
RID		

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Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9

IMDG

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

IATA (Cargo)

Packing instruction (cargo aircraft) : 956
Packing instruction (LQ) : Y956
Packing group : III
Labels : Miscellaneous

IATA (Passenger)

Packing instruction (passenger aircraft) : 956
Packing instruction (LQ) : Y956
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 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

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SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

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

Other regulations:

When evaluating a workplace, measures must be taken to ensure that employees are not exposed to conditions that may pose a risk during pregnancy or breastfeeding (cf. The Danish Working Environment Authority's Executive Order on The Performance of Work)

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

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

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

TCSI	: On the inventory, or 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.
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	: On the inventory, or in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: Not in compliance with the inventory

15.2 Chemical safety assessment

A chemical safety assessment is not required for this product (mixture).

SECTION 16: Other information

Full text of H-Statements

H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H332	: Harmful if inhaled.
H373	: May cause damage to organs through prolonged or repeated exposure if inhaled.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Skin Sens.	: Skin sensitisation

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STOT RE 2004/37/EC	: Specific target organ toxicity - repeated exposure : Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
DK OEL 2004/37/EC / TWA	: Denmark. Occupational Exposure Limits : Long term exposure limit
DK OEL / S	: Exposure period of 15 minutes
DK OEL / GV	: Long term exposure limit

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

Further information

Classification of the mixture:

Skin Sens. 1	H317
Eye Irrit. 2	H319
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Classification procedure:

Based on product data or assessment
Based on product data or assessment
Based on product data or assessment
Calculation method

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