

SAFETY DATA SHEET



Hammer 400EC Herbicide

Version 1.1 Revision Date: 30.09.2024 SDS Number: 50001553 Date of last issue: 06.06.2022
Date of first issue: 06.06.2022

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Hammer 400EC Herbicide

Other means of identification : CARFETNRAZONE-ETHYL 400 G/L EC

Recommended use of the chemical and restrictions on use

Recommended use : Can be used as herbicide only.

Restrictions on use : Use as recommended by the label.

Manufacturer or supplier's details

Company : FMC Australasia Pty Ltd

Address : Building B, Suite G.01, 12 Julius Avenue
North Ryde NSW 2113
Australia

Telephone : 1 800 066 355

Telefax : (02) 9923 6011

E-mail address : SDS-Info@fmc.com

Emergency telephone number : For leak, fire, spill or accident emergencies, call:
1800 033 111 (Ixon)

Medical emergency:
1 800 033 111 (Transport and 24 h Medical information)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 4

Serious eye damage/eye irritation : Category 1

Carcinogenicity : Category 2

Aspiration hazard : Category 1

GHS label elements

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- Hazard pictograms :
- Signal word : Danger
- Hazard statements : H227 Combustible liquid.
H304 May be fatal if swallowed and enters airways.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
- Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
- Response:**
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P331 Do NOT induce vomiting.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
- Storage:**
P403 Store in a well-ventilated place.
P405 Store locked up.
- Disposal:**
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

Very toxic to aquatic life with long lasting effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
carfentrazone-ethyl (ISO)	128639-02-1	>= 30 -< 60

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Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified	64742-94-5	>= 30 -< 60
Benzenesulfonic acid, C10-16-alkyl derivs., comps. with 2-propanamine	68584-24-7	>= 3 -< 10

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
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.
- Most important symptoms and effects, both acute and delayed : May be fatal if swallowed and enters airways.
Causes serious eye damage.
Suspected of causing cancer.
- Notes to physician : Treat symptomatically.
It may be helpful to show this safety data sheet to physician.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
Dry chemical
Regular foam
Dry powder

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- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Nitrogen oxides (NO_x)
Carbon oxides
Chlorine compounds
Fluorine compounds
- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
- Hazchem Code : •3Z
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SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.
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SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Keep away from open flames, hot surfaces and sources of ignition.
- Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the ap-
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plication area.
Provide sufficient air exchange and/or exhaust in work rooms.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

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

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

Recommended storage temperature : < 30 °C

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified	64742-94-5	TWA	200 mg/m ³ (total hydrocarbon vapor)	ACGIH
carfentrazone-ethyl (ISO)	128639-02-1	TWA (Inhalable particulate matter)	1 mg/m ³	ACGIH

Personal protective equipment

Respiratory protection : In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

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.

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

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Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Form : liquid

Colour : brown

Odour : odourless

pH : 2.5 - 6.5

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : > 62 °C

Self-ignition : No data available

Relative density : 1.1

Solubility(ies)
Water solubility : emulsifiable

Partition coefficient: n-octanol/water : No data available

Explosive properties : Not explosive

Oxidizing properties : The product is not oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

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Possibility of hazardous reactions : No decomposition if stored and applied as directed.
Vapours may form explosive mixture with air.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : Strong oxidizing agents
Strong acids and strong bases

Hazardous decomposition products : Nitrogen oxides (NOx)
Carbon oxides
Halogenated compounds

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

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.

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Remarks: no mortality

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

- 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): > 4.778 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Benzenesulfonic acid, C10-16-alkyl derivs., compds. with 2-propanamine:

- Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.
Remarks: Based on data from similar materials
- Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified based on available information.

Product:

- Remarks : Extremely corrosive and destructive to tissue.

Components:

carfentrazone-ethyl (ISO):

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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

- Species : Rabbit
Result : No skin irritation

Benzenesulfonic acid, C10-16-alkyl derivs., compds. with 2-propanamine:

- Result : Skin irritation
Remarks : Based on data from similar materials

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Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks : May cause irreversible eye damage.

Components:

carfentrazone-ethyl (ISO):

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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Species : Rabbit
Result : No eye irritation
Remarks : Based on data from similar materials

Benzenesulfonic acid, C10-16-alkyl derivs., compds. with 2-propanamine:

Result : Irreversible effects on the eye
Remarks : Based on data from similar materials

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Test Type : Maximisation Test
Species : Guinea pig

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Result : Not a skin sensitizer.
Remarks : Based on data from similar materials

Benzenesulfonic acid, C10-16-alkyl derivs., compds. with 2-propanamine:

Result : Does not cause skin sensitisation.
Remarks : Based on data from similar materials

Chronic toxicity

Germ cell mutagenicity

Not classified based on available information.

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

Test Type: unscheduled DNA synthesis assay

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Species: Rat (male)
Result: negative
GLP: yes

Germ cell mutagenicity - Assessment : No genotoxic potential

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Genotoxicity in vitro : Test Type: reverse mutation assay
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: Based on data from similar materials

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

Benzenesulfonic acid, C10-16-alkyl derivs., compds. with 2-propanamine:

Genotoxicity in vitro : Test Type: Ames 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: chromosome aberration assay
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity

Suspected of causing cancer.

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

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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.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

Not classified based on available information.

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

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.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Effects on fertility : Test Type: Three-generation study
Species: Rat, male and female
Application Route: Inhalation

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Result: negative

Effects on foetal development : Test Type: Pre-natal
Species: Rat
Application Route: Ingestion
Symptoms: Maternal effects
Method: OECD Test Guideline 414
Result: negative

Benzenesulfonic acid, C10-16-alkyl derivs., compds. with 2-propanamine:

Effects on foetal development : Species: Mouse
Application Route: Oral
Symptoms: Maternal effects

STOT - single exposure

Not classified based on available information.

Components:

carfentrazone-ethyl (ISO):

Remarks : No significant adverse effects were reported

Benzenesulfonic acid, C10-16-alkyl derivs., compds. with 2-propanamine:

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

STOT - repeated exposure

Not classified based on available information.

Components:

carfentrazone-ethyl (ISO):

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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

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

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

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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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Species : Rat
NOAEL : 300 mg/kg
Application Route : Oral - gavage
Exposure time : 13 weeks
Remarks : mortality

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

carfentrazone-ethyl (ISO):

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

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

May be fatal if swallowed and enters airways.

Neurological effects

Components:

carfentrazone-ethyl (ISO):

No neurotoxicity observed in animal studies

Further information

Product:

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Remarks : Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

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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- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 22 µg/l
Exposure time: 89 d
Test Type: Early Life-Stage
Method: OECD Test Guideline 210
GLP: yes
- NOEC (Oncorhynchus mykiss (rainbow trout)): 0.118 mg/l
Exposure time: 102 d
Test Type: flow-through test
Method: US EPA Test Guideline OPP 72-4
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.309 mg/l
End point: Growth
Exposure time: 21 d
Method: OECD Test Guideline 202
- Toxicity to microorganisms : NOEC (activated sludge): 1,000 mg/l
Test Type: Respiration inhibition
Method: OECD Test Guideline 209
- Toxicity to soil dwelling organisms : NOEC (Eisenia fetida (earthworms)): 820 mg/kg
- 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 (Anas platyrhynchos (Mallard duck)): > 5,620 ppm
End point: Acute oral toxicity
Remarks: Dietary
- LD50 (Colinus virginianus (Bobwhite quail)): 2,250 mg/kg
End point: Acute oral toxicity
- NOEL (Colinus virginianus (Bobwhite quail)): 1000 ppm
End point: Reproduction Test
- LD50 (Apis mellifera (bees)): > 200 µg/bee
End point: Acute oral toxicity
- LD50 (Apis mellifera (bees)): > 200 µg/bee
End point: Acute contact toxicity

Ecotoxicology Assessment

Toxicity Data on Soil : Harmful to the soil environment.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 3 mg/l
Exposure time: 96 h

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Method: EPA OPP 72-1

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): 1.1 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : NOELR (Pseudokirchneriella subcapitata (green algae)): 0.22 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EL50 (Pseudokirchneriella subcapitata (green algae)): 7.9 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOELR (Oncorhynchus mykiss (rainbow trout)): 0.103 mg/l
Exposure time: 28 d
Method: QSAR

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): 0.18 mg/l
Exposure time: 21 d
Method: QSAR

Persistence and degradability

Components:

carfentrazone-ethyl (ISO):

Biodegradability : Result: Not readily biodegradable.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 60.74 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Benzenesulfonic acid, C10-16-alkyl derivs., compds. with 2-propanamine:

Biodegradability : Result: Readily biodegradable.
Remarks: Based on data from similar materials

Bioaccumulative potential

Components:

carfentrazone-ethyl (ISO):

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

Partition coefficient: n- : log Pow: 3.7 (20 °C)

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Version	Revision Date:	SDS Number:	Date of last issue: 06.06.2022
1.1	30.09.2024	50001553	Date of first issue: 06.06.2022

octanol/water

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Partition coefficient: n-octanol/water : log Pow: 3.17 - 5.6
Method: QSAR

Mobility in soil

Components:

carfentrazone-ethyl (ISO):

Distribution among environmental compartments : Remarks: Mobile in soils

Other adverse effects

Product:

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

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Carfentrazone-ethyl)
Class : 9
Packing group : III
Labels : 9
Environmentally hazardous : yes

IATA-DGR

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UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(Carfentrazone-ethyl)
Class : 9
Packing group : III
Labels : Miscellaneous
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964
Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Carfentrazone-ethyl)
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes
Remarks : Marine Pollutants in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 L or less for liquids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code and IATA special provision A197.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

ADG

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Carfentrazone-ethyl)
Class : 9
Packing group : III
Labels : 9
Hazchem Code : •3Z
Environmentally hazardous : yes
Remarks : Environmentally hazardous substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the ADG Code when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg / liters, or IBCs

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.

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SECTION 15. REGULATORY INFORMATION

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

Therapeutic Goods (Poisons Standard) Instrument : Schedule 5 (Please use the original publication to check for specific uses, specific conditions or threshold limits that might apply for this chemical)

APVMA Code: 63228

Prohibition/Licensing Requirements : There is no applicable prohibition, authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.

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

TCSI	: Not in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AIIC	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL. Fatty acid di-ester
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

SECTION 16: ANY OTHER RELEVANT INFORMATION

Revision Date : 30.09.2024

Date format : dd.mm.yyyy

Full text of other abbreviations

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ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

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