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

1.1 Product identifier

Product name INNOVATE® 240 SC

Other means of identification

Product code 50001850

Unique Formula Identifier

(UFI)

0EUY-9232-HN4Q-YG4U

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

Use of the Sub- : Herbicide

stance/Mixture

Recommended restrictions :

on use

Use as recommended by the label.

For professional users only.

1.3 Manufacturer or supplier's details

Supplier Address FMC Agricultural Solutions A/S

Thyborønvej 78 DK-7673 Harboøre

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:

Emergency telephone number: 112 Croatia: +385-17776920 (CHEMTREC)

Medical emergency:

Medical Information Phone Number: 01-23-48-342 All other countries: +1 651 / 632-6793 (Collect)

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification REGULATION (EC) No 1272/2008

Skin irritation, Category 2 H315: Causes skin irritation.

Skin sensitisation, Sub-category 1B H317: May cause an allergic skin reaction.

Short-term (acute) aquatic hazard, Cate-

gory 1

H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Cat-

egory 1

H410: Very toxic to aquatic life with long lasting

effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms





Signal word : Warning

Hazard statements : H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P261 Avoid breathing mist or vapours.
P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection.

Response:

P333 + P313 If skin irritation or rash occurs: Get medical

advice/ attention.

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container as hazardous waste in

accordance with local regulations.

Additional Labelling

EUH401 To avoid risks to human health and the environment, comply with the instruc-

tions for use.

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

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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 REGULATION (EC) No 1272/2008	Concentration (% w/w)
Fatty acids, coco, Me esters	61788-59-8 262-988-1	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 30 - < 50
Nicosulfuron	111991-09-4	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 20 - < 25
		M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100	
calcium dodecylbenzenesulpho- nate	26264-06-2 247-557-8	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 4; H413	>= 3 - < 10
		Acute toxicity estimate Acute oral toxicity:	
		1.300 mg/kg	
12-Hydroxystearic acid, oligo- mers, reaction products with stea- ric acid	58128-22-6 500-140-7	Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 1 - < 10
2-ethylhexan-1-ol	104-76-7	Acute Tox. 4; H332	>= 1 - < 10

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		203-234-3	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 (Respiratory system) Acute toxicity estimate Acute inhalation toxicity (dust/mist): 4,3 mg/l

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

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 ambu-

lance.

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 : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

Do not induce vomiting without medical advice.

4.2 Most important symptoms and effects, both acute and delayed

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Symptoms : Primarily irritation.

Allergic reactions

Generally, sulphonylurea herbicides cause lethargy, confu-

sion, dizziness, seizures and coma on ingestion.

Risks : Causes skin irritation.

May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

Immediate medical attention is required in case of ingestion.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

Use extinguishing measures that are appropriate to local cir-

cumstances 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 prod: :

ucts

Fire may produce irritating, corrosive and/or toxic gases.

Nitrogen oxides (NOx)

Sulphur oxides Carbon oxides Chlorine compounds

5.3 Advice for firefighters

Special protective equipment :

for firefighters

Firefighters should wear protective clothing and self-contained

breathing apparatus.

Specific extinguishing meth-

ods

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

SO

Use a water spray to cool fully closed containers.

Further information : 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.

Standard procedure for chemical fires.

Use extinguishing measures that are appropriate to local cir-

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



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cumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Ensure adequate ventilation.

Use personal protective equipment.

Keep people away from and upwind of spill/leak.

Remove all sources of ignition.

Immediately evacuate personnel to safe areas.

If it can be safely done, stop the leak.

Do not touch or walk through the spilled material. 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 : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so. Try to prevent the material from entering drains or water

courses.

If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

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 absor-

bent 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 : 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.

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Smoking, eating and drinking should be prohibited in the ap-

plication area.

Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national

regulations.

Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being

used.

Advice on protection against

fire and explosion

Normal measures for preventive fire protection.

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

eyes and clothing. Do not inhale aerosol.

When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing and gloves, including

the inside, before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

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

safety standards.

Further information on stor-

age 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 availa-

ble.

Further information on stor-

age 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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

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Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-ethylhexan-1-ol	104-76-7	TWA	1 ppm 5,4 mg/m3	2017/164/EU
	Further information: Indicative			
		GVI	1 ppm 5,4 mg/m3	HR OEL
	Further information: 2017/164/EU			

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Eye wash bottle with pure water

Tightly fitting safety goggles

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 : Impervious clothing

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

Respiratory protection : In case of mist, spray or aerosol exposure wear suitable per-

sonal 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 in-

structions.

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 instruc-

tions for use.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid
Colour : white
Odour : odourless
Odour Threshold : not determined
Melting point/freezing point : not determined
Boiling point/boiling range : not determined
Upper explosion limit / Upper : not determined

flammability limit

Lower explosion limit / Lower : not determined

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flammability limit

Flash point : 118 °C

Method: Pensky-Martens closed cup

Auto-ignition temperature : No data available

No data available

Decomposition temperature : not determined

pH : 4,1

Concentration: 1 %

4,3

(undiluted)

Viscosity

Viscosity, dynamic : 323 mPa.s (20 °C)

137 mPa,s (40 °C) No data available 316 mm2/s (20 °C)

Viscosity, kinematic : 316 mm2/s (20 °C) 133 mm2/s (40 °C)

Solubility(ies)

Water solubility : dispersible

Partition coefficient: n- : Not available for this mixture.

octanol/water

Vapour pressure : Not available for this mixture.

Relative density : No data available
Density : 1,02 g/cm3 (20 °C)
Relative vapour density : not determined

Particle characteristics

Particle size : Not applicable
Particle Size Distribution : Not applicable
Shape : Not applicable

9.2 Other information

Explosives : Not explosive
Oxidizing properties : Non-oxidizing
Flammability (liquids) : ignitable
Self-ignition : 308 °C

Evaporation rate : No data available Molecular weight : Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : Avoid extreme temperatures

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Avoid formation of aerosol. Heat, flames and sparks.

Protect from frost, heat and sunlight.

Heating of the product will produce harmful and irritant va-

pours.

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

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

Product:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Method: OECD Test Guideline 425

Acute inhalation toxicity : LC50 (Rat): > 2,15 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Highest attainable concentration.

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

Method: OECD Test Guideline 402

Components:

Fatty acids, coco, Me esters:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Nicosulfuron:

Acute oral toxicity : LD50 (Rat, female): > 5.000 mg/kg

Method: OECD Test Guideline 425

Remarks: Information source: Internal study report

Acute inhalation toxicity : LC50 (Rat): > 5,47 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

Method: OECD Test Guideline 402

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



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Remarks: Information source: Internal study report

calcium dodecylbenzenesulphonate:

Acute oral toxicity : LD50 (Rat, male and female): 1.300 mg/kg

Remarks: Based on data from similar materials

Acute inhalation toxicity : Remarks: Not classified

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

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

12-Hydroxystearic acid, oligomers, reaction products with stearic acid:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

2-ethylhexan-1-ol:

Acute oral toxicity : LD50 (Rat, male): 2.047 mg/kg

Acute inhalation toxicity : LC50 (Rat): 4,3 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat, male and female): > 3.000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Skin corrosion/irritation

Causes skin irritation.

Product:

Method : OECD Test Guideline 404

Result : Skin irritation

Components:

Fatty acids, coco, Me esters:

Result : No skin irritation

Nicosulfuron:

Assessment : No skin irritation

Method : OECD Test Guideline 404

calcium dodecylbenzenesulphonate:

Species : Rabbit

Method : OECD Test Guideline 404

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



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Result : Skin irritation

12-Hydroxystearic acid, oligomers, reaction products with stearic acid:

Species : Rabbit Result : Skin irritation

2-ethylhexan-1-ol:

Species : Rabbit

Method : OECD Test Guideline 404

Result : Skin irritation

Serious eye damage/eye irritation

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

Product:

Assessment : No eye irritation

Method : OECD Test Guideline 405

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

tion.

Components:

Fatty acids, coco, Me esters:

Result : No eye irritation

Nicosulfuron:

Assessment : No eye irritation

Method : OECD Test Guideline 405

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

tion.

calcium dodecylbenzenesulphonate:

Species : Rabbit

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

Remarks : Based on data from similar materials

Species : Rabbit

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

12-Hydroxystearic acid, oligomers, reaction products with stearic acid:

Species : Rabbit
Method : Draize Test
Result : Mild eye irritation

2-ethylhexan-1-ol:

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Species : Rabbit

Method : OECD Test Guideline 405

Result : Irritation to eyes, reversing within 21 days

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

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

Product:

Test Type : Local lymph node assay (LLNA)
Method : OECD Test Guideline 429

Result : The product is a skin sensitiser, sub-category 1B.

Test Type : Buehler Test

Method : OECD Test Guideline 406

Result : negative

Components:

Fatty acids, coco, Me esters:

Result : Does not cause skin sensitisation.

Nicosulfuron:

Species : Guinea pig

Assessment : Not a skin sensitizer.

Method : OECD Test Guideline 406

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

tion.

calcium dodecylbenzenesulphonate:

Test Type : Maximisation Test Species : Guinea pig

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

Remarks : Based on data from similar materials

12-Hydroxystearic acid, oligomers, reaction products with stearic acid:

Test Type : Maximisation Test

Species : Guinea pig

Result : Does not cause skin sensitisation.

Germ cell mutagenicity

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

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Components:

Nicosulfuron:

Germ cell mutagenicity- As-

sessment

Weight of evidence does not support classification as a germ

cell mutagen.

calcium dodecylbenzenesulphonate:

Genotoxicity in vitro : Test Type: reverse mutation assay

Method: OECD Test Guideline 471

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: chromosome aberration assay

Species: Rat (male and female)

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

Remarks: Based on data from similar materials

Germ cell mutagenicity- As-

sessment

Weight of evidence does not support classification as a germ

cell mutagen.

2-ethylhexan-1-ol:

Genotoxicity in vitro : Test Type: reverse mutation assay

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse

Application Route: Intraperitoneal injection

Result: negative

Carcinogenicity

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

Components:

Nicosulfuron:

Carcinogenicity - Assess-

: Animal testing did not show any carcinogenic effects.

ment

calcium dodecylbenzenesulphonate:

Species : Rat, male and female

Application Route : Oral Exposure time : 720 d

NOAEL : 250 mg/kg body weight

Result : negative

Remarks : Based on data from similar materials

Carcinogenicity - Assess- : Weight of evidence does not support classification as a car-

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ment cinogen

2-ethylhexan-1-ol:

Species : Rat Application Route : Oral

Exposure time : 24 month(s)
Result : negative

Reproductive toxicity

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

Components:

calcium dodecylbenzenesulphonate:

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

Species: Rat, male and female Application Route: Ingestion

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

Method: OECD Test Guideline 422

Result: negative

Effects on foetal develop-

ment

Test Type: reproductive and developmental toxicity study

Species: Rat

Application Route: Ingestion

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

Method: OECD Test Guideline 422

Result: negative

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

2-ethylhexan-1-ol:

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Mouse

Application Route: Oral

Method: OECD Test Guideline 414

Result: negative

STOT - single exposure

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

Components:

2-ethylhexan-1-ol:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

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

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Repeated dose toxicity

Components:

calcium dodecylbenzenesulphonate:

Species : Rat, male and female

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

Remarks : Based on data from similar materials

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

Remarks : Based on data from similar materials

Species : Rat, male and female NOAEL : 100 mg/kg bw/day LOAEL : 200 mg/kg bw/day Application Route : Oral - gavage Exposure time : 28 - 54 Days

Method : OECD Test Guideline 422

Remarks : Based on data from similar materials

2-ethylhexan-1-ol:

Species : Rat

250 mg/kg

Application Route : Oral Exposure time : 13 Weeks

Method : OECD Test Guideline 408

Aspiration toxicity

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

Product:

No aspiration toxicity classification

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components consid-

ered 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.

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Further information

Product:

Remarks : No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 64,4 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 10 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 1,83

mg/l

Exposure time: 72 h

EC50 (Anabaena flos-aquae (cyanobacterium)): 2,22 mg/l

Exposure time: 72 h

EC50 (Lemna gibba (duckweed)): 5.81 μg/l

Exposure time: 7 d

Toxicity to soil dwelling or-

ganisms

LC50: > 1.000 mg/kg

Exposure time: 14 d

Species: Eisenia fetida (earthworms)

EC50: 935 mg/kg

Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organ-

isms

LD50: > 2.000 mg/kg

Species: Coturnix japonica (Japanese quail)

LD50: > 400 µg/bee Exposure time: 48 h

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

LC50: > 432 µg/bee Exposure time: 48 h

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

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

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



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Components:

Fatty acids, coco, Me esters:

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

Nicosulfuron:

Toxicity to fish : LC50 (Salmo gairdneri): 65,7 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): 90 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

IC50 (Scenedesmus subspicatus): 182 mg/l

Exposure time: 72 h

IC50 (Anabaena flos-aquae (cyanobacterium)): 7,8 mg/l

Exposure time: 72 h

EC50 (Lemna minor (duckweed)): 0,0017 mg/l

Exposure time: 7 d

M-Factor (Acute aquatic tox-

icity)

100

Toxicity to fish (Chronic tox-

icity)

NOEC: 10 mg/l Exposure time: 28 d

Species: Salmo gairdneri

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 25 mg/l

Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

100

Toxicity to soil dwelling or-

Toxicity t

LC50: > 1.000 mg/kg

Exposure time: 14 d

Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organ-

isms

LD50: > 2.250 mg/kg

Species: Colinus virginianus (Bobwhite quail)

LD50: > 2.000 ppm

Species: Anas platyrhynchos (Mallard duck)

LC50: > 5.000 ppm Exposure time: 8 d

Species: Anas platyrhynchos (Mallard duck)

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LD50: $> 76 \mu g/bee$

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

LD50: > 20 µg/bee

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

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

calcium dodecylbenzenesulphonate:

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

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

LC50 (Pimephales promelas (fathead minnow)): 4,6 mg/l

Exposure time: 96 h

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 3,5 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae/aquatic

plants

NOEC (Pseudokirchneriella subcapitata (green algae)): 7,9

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

EC50 (Pseudokirchneriella subcapitata (green algae)): 65,4

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

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

Exposure time: 3 h

Method: OECD Test Guideline 209

Toxicity to daphnia and other

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 1,65 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Remarks: Based on data from similar materials

NOEC: 1,18 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

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Remarks: Based on data from similar materials

Toxicity to soil dwelling or-

ganisms

: LC50: 1.000 mg/kg Exposure time: 14 d

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

Toxicity to terrestrial organ-

isms

LD50: 1.356 mg/kg Exposure time: 14 d

Species: Colinus virginianus (Bobwhite quail)

Method: OECD Test Guideline 223

Ecotoxicology Assessment

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

12-Hydroxystearic acid, oligomers, reaction products with stearic acid:

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Crustaceans): 1.614 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (Skeletonema costatum (marine diatom)): > 10.000 mg/l

Exposure time: 72 h

2-ethylhexan-1-ol:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 17,1 - 28,2 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 39 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC10 (Desmodesmus subspicatus (green algae)): 3,2 mg/l

Exposure time: 72 h

EC50 (Desmodesmus subspicatus (green algae)): 11,5 mg/l

Exposure time: 72 h

Toxicity to microorganisms : EC50 (Anabaena flos-aquae (cyanobacterium)): 16,6 mg/l

Exposure time: 72 h

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: Product contains minor amounts of not readily bio-

degradable components, which may not be degradable in

waste water treatment plants.

Components:

Fatty acids, coco, Me esters:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 78 %

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Exposure time: 28 d

Method: OECD Test Guideline 301C

Nicosulfuron:

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.

calcium dodecylbenzenesulphonate:

Biodegradability : Result: Readily biodegradable.

Method: OECD Test Guideline 301E

12-Hydroxystearic acid, oligomers, reaction products with stearic acid:

Biodegradability : Result: Not readily biodegradable.

Biodegradation: 57 % Exposure time: 28 d

Method: OECD Test Guideline 301C

2-ethylhexan-1-ol:

Biodegradability : Result: Readily biodegradable.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data is available on the product itself.

Components:

Fatty acids, coco, Me esters:

Bioaccumulation : Bioconcentration factor (BCF): 290

Partition coefficient: n-

octanol/water

log Pow: > 3

Nicosulfuron:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-

octanol/water

log Pow: -0,36 (25 °C)

pH: 4

log Pow: -1,77 (25 °C)

pH: 7

log Pow: -2 (25 °C)

pH: 9

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calcium dodecylbenzenesulphonate:

Bioaccumulation : Species: Fish

Bioconcentration factor (BCF): 70,79

Method: QSAR

Partition coefficient: n-

octanol/water

log Pow: 4,77 (25 °C)

2-ethylhexan-1-ol:

Partition coefficient: n-

octanol/water

log Pow: 2,9 (25 °C)

12.4 Mobility in soil

Product:

Distribution among environ-

mental compartments

: Remarks: No data is available on the product itself.

Components:

Nicosulfuron:

Distribution among environ-

mental compartments

Remarks: Mobile in soils

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 consid-

ered 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 infor-

mation

: An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

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



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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

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 han-

dling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number or ID number

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

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Nicosulfuron)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Nicosulfuron)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Nicosulfuron)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Nicosulfuron)

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

(Nicosulfuron)

14.3 Transport hazard class(es)

Class Subsidiary risks

ADN : 9

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 ADR
 : 9

 RID
 : 9

 IMDG
 : 9

 IATA
 : 9

14.4 Packing group

ADN

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

ADR

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

RID

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

IMDG

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

IATA (Cargo)

Packing instruction (cargo : 964

aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

IATA (Passenger)

Packing instruction (passen- : 964

ger aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

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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.

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)

Conditions of restriction for the following entries should be considered:

Number on list 3

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 pollu-

tants (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.

ENVIRONMENTAL HAZARDS

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

E1

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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.

2-[(4,6-DIMETHOXYPYRIMIDIN-2-YLCARBAMOYL)SULFAMOYL]-N,N-

DIMETHYLNICOTINAMIDE

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : Not in compliance with the inventory

NZIoC : Not in compliance with the inventory

TECI: Not in compliance with the inventory

15.2 Chemical safety assessment

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

SECTION 16: Other information

Full text of H-Statements

H302 : Harmful if swallowed. H315 : Causes skin irritation.

H318 : Causes serious eye damage. H319 : Causes serious eye irritation.

H332 : Harmful if inhaled.

H335 : May cause respiratory irritation. H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.H413 : May cause long lasting harmful effects to aquatic life.

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

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Eye Irrit. : Eye irritation Skin Irrit. : Skin irritation

STOT SE : Specific target organ toxicity - single exposure

2017/164/EU : Europe. Commission Directive 2017/164/EU establishing a

fourth list of indicative occupational exposure limit values

HR OEL : Croatia. Regulations on limit values for exposure to hazardous

substances at work and on the biological limit values.

2017/164/EU / TWA : Limit Value - eight hours HR OEL / GVI : time weighted average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways: ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level: NOELR - No Observable Effect Loading Rate: NZIoC - New Zealand Inventory of 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 Irrit. 2	H315	Based on product data or assessment
Skin Sens. 1B	H317	Based on product data or assessment
Aquatic Acute 1	H400	Based on product data or assessment
Aquatic Chronic 1	H410	Based on product data or assessment

Classification procedure:

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