SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006, Annex II and its amendments.

ACCENT

Version	Revision Date:	SDS Number:	Date of last issue: 07.03.2024
2.1	26.03.2024	800080000052	Date of first issue: 07.03.2024

Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of Ireland and may not meet the regulatory requirements in other countries.

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

1.1 Product identifier

Trade name : ACCENT

Unique Formula Identifier (UFI) : RV0C-S058-G00M-352P

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

Use of the Substance/Mixture : Herbicide

1.3 Details of the supplier of the safety data sheet

COMPANY IDENTIFICATION
Manufacturer/importer
Corteva Agriscience UK Limited
Melbourn Science Park - Cambridge Road - Unit H4, Building H
Melbourn Cambridgeshire - SG8 6HB
UNITED KINGDOM

Customer Information Number : +44 8006 89 8899
E-mail address : SDS@corteva.com

1.4 Emergency telephone number

SGS : +353 818 663 627

National Poisons Information Centre (Beaumont Hospital): 01 809 2166 (8 AM - 10 PM)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Short-term (acute) aquatic hazard, Cate- H400: Very toxic to aquatic life.

gory 1

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 : H410 Very toxic to aquatic life with long lasting effects.

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

Precautionary statements :

Response:

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container to a licensed waste disposal contractor or collection site except for empty clean triple rinsed containers which can be disposed of as non-hazardous waste.

Additional Labelling

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

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. REACH Registration number	Classification	Concentration (% w/w)
Nicosulfuron	111991-09-4 601-148-4	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 _____ M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 10	75
Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt	68425-94-5	Eye Irrit. 2; H319	>= 3 - < 10
Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts	68608-89-9 271-808-0	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 _____ M-Factor (Acute aquatic toxicity): 1	>= 1 - < 2.5
Substances with a workplace exposure limit :			
Barden Clay	1332-58-7 310-194-1		>= 10 - < 20

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Never give anything by mouth to an unconscious person.

For specialist advice contact the National Poisons Information Service.Healthcare Professionals: (01) 809 2566 or (01) 837 9964 (24h per day –365 days per year). Public Poisons Information Line: (01) 809 2166(8am-10pm).

If inhaled : Move to fresh air.

Consult a physician after significant exposure.
Artificial respiration and/or oxygen may be necessary.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off immediately with soap and plenty of water.
In the case of skin irritation or allergic reactions see a physician.
Wash contaminated clothing before re-use.

In case of eye contact : If easy to do, remove contact lens, if worn.
Hold eye open and rinse slowly and gently with water for 15-20 minutes.
If eye irritation persists, consult a specialist.

If swallowed : Obtain medical attention.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
If victim is conscious:
Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No cases of human intoxication are known and the symptoms of experimental intoxication are not known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Alcohol-resistant foam

Unsuitable extinguishing media : Dry chemical

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.
Applying foam will release significant amounts of hydrogen gas that can be trapped under the foam blanket.
Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.
Combustion products may include and are not limited to:
Nitrogen oxides (NOx)
Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.
Specific extinguishing methods	:	Do not allow extinguishing medium to contact container contents. Most fire extinguishing media will cause hydrogen evolution, and once the fire is put out, may accumulate in poorly ventilated or confined areas and result in flash fire or explosion if ignited. Remove undamaged containers from fire area if it is safe to do so. Evacuate area. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Avoid dust formation. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions

Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities. Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained. Prevent from entering into soil, ditches, sewers,underwater. See Section 12, Ecological Information.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in. Pick up and arrange disposal without creating dust. Recovered material should be stored in a vented container. The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to overpressurization of the container.

Keep in suitable, closed containers for disposal.
Sweep up or vacuum up spillage and collect in suitable container for disposal.
See Section 13, Disposal Considerations, for additional information.

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	:	Handle in accordance with good industrial hygiene and safety practice. Smoking, eating and drinking should be prohibited in the application area. Avoid prolonged or repeated contact with skin. Take care to prevent spills, waste and minimize release to the environment. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. Wash hands and face before breaks and immediately after handling the product. When using do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs. For environmental protection remove and wash all contaminated protective equipment before re-use. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Dispose of rinse water in accordance with local and national regulations.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Store in a closed container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in properly labelled containers. Store in accordance with the particular national regulations.
Advice on common storage	:	Do not store near acids. Strong oxidizing agents
Packaging material	:	Unsuitable material: None known.

7.3 Specific end use(s)

Specific use(s)	:	Plant protection products subject to Regulation (EC) No 1107/2009.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Barden Clay	1332-58-7	Occupational exposure limit value (8-hour reference period) (Respirable dust)	2 mg/m3	IE OEL
		Long term exposure limit (Respirable dust)	0.1 mg/m3	2004/37/EC
	Further information: Carcinogens or mutagens			
Sucrose	57-50-1	Occupational exposure limit value (8-hour reference period)	10 mg/m3	IE OEL
		Occupational exposure limit value (15-minute reference period)	20 mg/m3	IE OEL

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.
Provide for appropriate exhaust ventilation and dust collection at machinery.
Use sufficient ventilation to keep employee exposure below recommended limits.

Personal protective equipment

Eye/face protection : Safety glasses with side-shields conforming to EN166

Hand protection

Remarks : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Before removing gloves clean them with soap and water. Gauntlets shorter than 35 cm long shall be worn under the combination sleeve.

Skin and body protection : Manufacturing and processing work:

Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034)

Mixer and loaders must wear:
Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034)
Rubber apron
Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Spray application - outdoor:

Tractor / sprayer with hood:
No personal body protection normally required.

Tractor / sprayer without hood:
Low application:
Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034)
Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Backpack / knapsack sprayer:
Low application:
Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034)
Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Motorized greenhouse sprayer:
Full protective clothing Type 4 (EN 14605)
Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

When exceptional circumstances require an access to the treated area before the end of re-entry periods, wear full protective clothing Type 6(EN 13034), nitrile rubber gloves class 3 (EN 374) and nitrile rubber boots (EN 13832-3 / EN ISO 20345).

The permeation resistance of the fabric must be verified independently of the « type » protection recommended, to ensure an appropriate performance level of the material adequate to the corresponding agent and type of exposure.
To optimize the ergonomy it may be recommended to use cotton underwear when wearing some fabrics. Take advice from supplier.
Garment materials that are resistant to both water vapour and air will maximise wearing comfort. Materials should be robust to maintain the integrity and barrier in use.

Respiratory protection : Manufacturing and processing work:
Half mask with a particle filter FFP1 (EN149)

Mixer and loaders must wear:
Half mask with a particle filter FFP1 (EN149)

Spray application - outdoor:

Tractor / sprayer with hood:
No personal respiratory protective equipment normally required.

Tractor / sprayer without hood:
Low application:
Half mask with a particle filter P1 (EN 143).

Backpack / knapsack sprayer:
Low application:
No personal respiratory protective equipment normally required.
Half mask with a particle filter P1 (EN 143).

Spray application - indoor:

Mechanical automatized spray application in closed tunnel:
No personal respiratory protective equipment normally required.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
All chemical protective clothing should be visually inspected prior to use. Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated.
Only protected handlers may be in the area during application.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	granules
Colour	:	light brown
Odour	:	slight, acrid
Odour Threshold	:	not determined
Melting point/range	:	141 - 144 °C
Boiling point/boiling range	:	Not applicable

Flammability	:	The product is not flammable.
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Flash point	:	Method: closed cup Not applicable
Auto-ignition temperature	:	No data available
pH	:	4.5 Concentration: 10 g/L
Viscosity		
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable
Solubility(ies)		
Water solubility	:	dispersible
Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	Not applicable
Relative density	:	No data available
Density	:	0.53 g/cm3
Bulk density	:	250 - 490 kg/m3
Relative vapour density	:	Not applicable

9.2 Other information

Explosives	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Self-ignition	:	not auto-flammable
Evaporation rate	:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

No decomposition if stored and applied as directed.
Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No hazards to be specially mentioned.
None known.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Strong acids
Strong bases

10.6 Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials.
Decomposition products can include and are not limited to:
Nitrogen oxides (NOx)
Carbon oxides

SECTION 11: Toxicological information

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

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: US EPA Test Guideline OPP 81-1

Acute inhalation toxicity : LC50 (Rat): > 5.6 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: US EPA Test Guideline OPP 81-3

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: US EPA Test Guideline OPP 81-2

Components:

Nicosulfuron:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: US EPA Test Guideline OPP 81-1

Acute inhalation toxicity : LC50 (Rat): > 5.9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: US EPA Test Guideline OPP 81-3
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: US EPA Test Guideline OPP 81-2
Assessment: The substance or mixture has no acute dermal toxicity

Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Acute oral toxicity : LD50 (Rat): > 4,500 mg/kg

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Acute oral toxicity : LD50 (Rat, male and female): 520 mg/kg

Acute dermal toxicity : LD50 (Rat, male and female): > 1,000 - < 1,600 mg/kg
Method: OECD Test Guideline 402
Remarks: For similar material(s):

Barden Clay:

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

Skin corrosion/irritation

Product:

Species : Rabbit
Method : US EPA Test Guideline OPP 81-5
Result : No skin irritation

Components:

Nicosulfuron:

Species : Rabbit
Method : US EPA Test Guideline OPP 81-5
Result : No skin irritation

Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Species : Rabbit
Result : No skin irritation

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Species : Rabbit
Result : Skin irritation

Barden Clay:

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : Rabbit
Method : US EPA Test Guideline OPP 81-4
Result : No eye irritation

Components:

Nicosulfuron:

Species : Rabbit
Method : US EPA Test Guideline OPP 81-4
Result : No eye irritation

Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Species : Rabbit
Result : Eye irritation

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Corrosive

Barden Clay:

Species : Rabbit
Result : No eye irritation

Respiratory or skin sensitisation

Product:

Test Type	:	Buehler Test
Species	:	Guinea pig
Method	:	US EPA Test Guideline OPP 81-6
Result	:	Does not cause skin sensitisation.

Components:

Nicosulfuron:

Test Type	:	Buehler Test
Species	:	Guinea pig
Method	:	US EPA Test Guideline OPP 81-6
Result	:	Did not cause sensitisation on laboratory animals.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Test Type	:	Maximisation Test
Species	:	Guinea pig
Assessment	:	Does not cause skin sensitisation.
Method	:	OECD Test Guideline 406
Remarks	:	For skin sensitization: For similar material(s): Did not cause allergic skin reactions when tested in guinea pigs.
Remarks	:	For respiratory sensitization: No relevant data found.

Germ cell mutagenicity

Components:

Nicosulfuron:

Germ cell mutagenicity- Assessment	:	In vitro genetic toxicity studies were negative.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Germ cell mutagenicity- Assessment	:	In vitro genetic toxicity studies were negative., In vivo tests showed mutagenic effects

Carcinogenicity

Product:

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

Components:

Nicosulfuron:

Carcinogenicity - Assessment : Did not cause cancer in laboratory animals.

Barden Clay:

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

Available data suggest that the material is unlikely to cause cancer.

Reproductive toxicity

Components:

Nicosulfuron:

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction., In animal studies, did not interfere with fertility.
Did not show teratogenic effects in animal experiments.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction.
Did not cause birth defects or any other fetal effects in laboratory animals.

STOT - single exposure

Product:

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Components:

Nicosulfuron:

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

Barden Clay:

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Repeated dose toxicity

Components:

Nicosulfuron:

Remarks : Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Remarks : For similar material(s):
In animals, effects have been reported on the following organs:
spleen
Heart
Thymus.
Liver

Barden Clay:

Remarks : Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs.

Aspiration toxicity

Product:

Based on physical properties, not likely to be an aspiration hazard.

Components:

Nicosulfuron:

Based on physical properties, not likely to be an aspiration hazard.

Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Based on physical properties, not likely to be an aspiration hazard.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Based on physical properties, not likely to be an aspiration hazard.

Barden Clay:

Based on physical properties, not likely to be an aspiration hazard.

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.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes
Remarks: Material is practically non-toxic to fish on an acute basis (LC50 > 100 mg/L).

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
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 10 mg/l
Exposure time: 72 h
Method: Directive 67/548/EEC, Annex V, C.3.
GLP: yes

ErC50 (Lemna gibba (duckweed)): 0.00341 mg/l
Exposure time: 7 d
Method: US EPA Test Guideline OPP 122-2 & 123-2
GLP: yes

Toxicity to soil dwelling organisms : LC50: > 1,000 mg/kg
Exposure time: 14 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 207
GLP:yes

Toxicity to terrestrial organisms : oral LD50: > 100 µg/b
Exposure time: 48 h
End point: mortality
Species: Apis mellifera (bees)
Method: OECD Test Guideline 213

GLP:yes

contact LD50: > 100 µg/b
Exposure time: 48 h
End point: mortality
Species: Apis mellifera (bees)
Method: OECD Test Guideline 214
GLP:yes

oral LD50: > 2,250 mg/kg
Species: Colinus virginianus (Bobwhite quail)
Remarks: Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Components:

Nicosulfuron:

Toxicity to fish : Remarks: Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).

Remarks: Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in the most sensitive species).

LC50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l
Exposure time: 96 h
Test Type: static test
Method: US EPA Test Guideline OPP 72-1
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h
Test Type: static test
Method: US EPA Test Guideline OPP 72-2
GLP: yes

NOEC (Daphnia magna (Water flea)): 43 mg/l

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 71.17 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

EbC50 (Anabaena flos-aquae (cyanobacteria)): 41.8 mg/l
Exposure time: 96 h
Method: Directive 67/548/EEC, Annex V, C.3.
GLP: yes

ErC50 (Anabaena flos-aquae (cyanobacteria)): 59.8 mg/l
Exposure time: 96 h
Method: Directive 67/548/EEC, Annex V, C.3.
GLP: yes

EC50 (Lemna gibba (duckweed)): 0.0032 mg/l
Exposure time: 7 d
Method: US EPA Test Guideline OPP 122-2 & 123-2
GLP: yes

M-Factor (Acute aquatic toxicity) : 100

Toxicity to fish (Chronic toxicity) : NOEC: 24 mg/l
Exposure time: 90 d
Species: Oncorhynchus mykiss (rainbow trout)
Test Type: Early Life-Stage
Method: OECD Test Guideline 210
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 43 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: Static-Renewal
Method: OECD Test Guideline 202
GLP: yes

M-Factor (Chronic aquatic toxicity) : 10

Toxicity to terrestrial organisms : oral LD50: > 2,250 mg/kg
Species: Colinus virginianus (Bobwhite quail)
Method: US EPA Test Guideline OPP 71-1
GLP:yes

dietary LC50: > 5,620 mg/kg
Exposure time: 5 d
Species: Anas platyrhynchos (Mallard duck)
Method: US EPA Test Guideline OPP 71-2
GLP:yes

oral LD50: 0.050 mg/kg
Exposure time: 48 h
Species: Apis mellifera (bees)
Method: OECD Test Guideline 213
GLP:yes

oral LD50: > 100 mg/kg
Exposure time: 48 h
Species: Apis mellifera (bees)
Method: OECD Test Guideline 214
GLP:yes

Ecotoxicology Assessment

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

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Toxicity to fish	:	LC50 (Bluegill sunfish (Lepomis macrochirus)): 1.67 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna): 0.83 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 37 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.23 mg/l Species: Rainbow trout (Salmo gairdneri)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 1.18 mg/l Exposure time: 21 d Species: Daphnia magna

12.2 Persistence and degradability

Components:

Nicosulfuron:

Biodegradability	:	Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Biodegradability	:	Result: Not biodegradable

12.3 Bioaccumulative potential

Components:

Nicosulfuron:

Bioaccumulation	:	Remarks: Does not bioaccumulate.
Partition coefficient: n-octanol/water	:	log Pow: -1.15 Method: Estimated. Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Partition coefficient: n-octanol/water : Remarks: No data available for this product.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:

Bioaccumulation : Bioconcentration factor (BCF): 0.5

Partition coefficient: n-octanol/water : log Pow: 0 (20 °C)
pH: 5.8

Barden Clay:

Partition coefficient: n-octanol/water : Remarks: Partitioning from water to n-octanol is not applicable.

12.4 Mobility in soil

Components:

Nicosulfuron:

Distribution among environmental compartments : Koc: 33 - 51
Remarks: Under actual use conditions the product has a low potential of mobility in soil.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

Nicosulfuron:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Assessment : This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Barden Clay:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB).

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

Components:

Nicosulfuron:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Barden Clay:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.
If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

SECTION 14: Transport information

14.1 UN number or ID number

ADR : UN 3077

RID : UN 3077

IMDG : UN 3077

IATA : UN 3077

14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Nicosulfuron)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Nicosulfuron)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Nicosulfuron)

IATA : Environmentally hazardous substance, solid, n.o.s.
(Nicosulfuron)

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADR	9	
RID	9	
IMDG	9	
IATA	9	

14.4 Packing group

ADR

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

RID

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

IMDG

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

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

ADR
Environmentally hazardous : yes

RID
Environmentally hazardous : yes

IMDG
Marine pollutant : yes(Nicosulfuron)

14.6 Special precautions for user

Marine Pollutants assigned UN number 3077 and 3082 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 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA Special provision A197, and ADR/RID special provision 375.

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 - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable

Seveso III: Directive 2012/18/EU of the Euro-	E1	ENVIRONMENTAL HAZARDS

pean Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.
The mixture is evaluated within the frame of the provisions of Regulation (EC) No. 1107/2009.
Refer to the label for exposure assessment information.

SECTION 16: Other information

Information Source and References
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

Full text of H-Statements

H302	:	Harmful if swallowed.
H312	:	Harmful in contact with skin.
H315	:	Causes skin irritation.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Skin Irrit.	:	Skin irritation
2004/37/EC	:	Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
IE OEL	:	List of Chemical Agents and Carcinogens with Occupational Exposure Limit Values - Code of Practice, Schedule 1 and 2
2004/37/EC / TWA	:	Long term exposure limit
IE OEL / OELV - 8 hrs (TWA)	:	Occupational exposure limit value (8-hour reference period)
IE OEL / OELV - 15 min (STEL)	:	Occupational exposure limit value (15-minute reference period)

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; ECx - Concentration associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IMDG - Interna-

tional Maritime Dangerous Goods; IMO - International Maritime Organization; 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; NOEC - Non-Observed Effective Concentration; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; (Q)SAR - (Quantitative) Structure Activity Relationship; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN - United Nations.
EC-Number - European Community number REACH - Regulation (EC) No 1907/2006 of the European Parliament and of Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.

Further information

Other information : Take notice of the directions of use on the label.

Classification of the mixture:		**Classification procedure:**
Aquatic Acute 1	H400	Based on product data or assessment
Aquatic Chronic 1	H410	Calculation method

Product code: GF-3864

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

IE / 6N