SAFETY DATA SHEET

HECTOR® MAX, WG

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	19.07.2023	800080000398	Date of first issue: 19.07.2023

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 Georgia and may not meet the regulatory requirements in other countries.

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : HECTOR® MAX, WG

Manufacturer or supplier's details

COMPANY IDENTIFICATION

Manufacturer/importer : Corteva Agriscience International S.a.r.l.
Route de Suisse 160
CH-1290 Versoix
Switzerland

E-mail address : SDS@corteva.com

Emergency telephone number : +32 3 575 55 55

Recommended use of the chemical and restrictions on use

Recommended use : Herbicide

Restrictions on use : Do not use product for anything outside of the above specified uses.

2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Inhalation) : Category 5

Eye irritation : Category 2A

Short-term (acute) aquatic hazard : Category 2

Long-term (chronic) aquatic hazard : Category 1

GHS-Labelling

Hazard pictograms :

Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.
P260 Do not breathe dust.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P304 + P312 IF INHALED: Call a POISON CENTER/ doctor if you feel unwell.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P391 Collect spillage.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Components

Chemical name	CAS-No.	Classification	MAC value mg/m3 / TSEL value	Concentration (% w/w)
dicamba (ISO)	1918-00-9	Acute Tox.4; H302 Acute Tox.4; H332 Acute Tox.5; H313 Eye Dam.1; H318 Aquatic Acute3; H402 Aquatic Chronic3; H412	MPC-STEL: 1 mg/m3 Class 2 - Highly dangerous, Substances which require special skin and eye protection Data Source: RU OEL	68,38
Nicosulfuron	111991-09-4	Aquatic Acute1; H400 Aquatic Chronic1; H410	No data available	9,15

sodium hydroxide	1310-73-2	Met. Corr.1; H290 Skin Corr.1A; H314 Eye Dam.1; H318	MPC-STEL: 0,5 mg/m3 Class 2 - Highly dangerous, Substances which require special skin and eye protection Data Source: RU OEL	>= 3 - < 5
Barden Clay	1332-58-7		MPC-TWA: 8 mg/m3 aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous Data Source: RU OEL	>= 1 - < 3
Rimsulfuron	122931-48-0	Aquatic Acute1; H400 Aquatic Chronic1; H410	No data available	2,3
Benzenesulfonic acid, dodecyl-, branched, sodium salt	69227-09-4	Acute Tox.4; H302 Acute Tox.4; H312 Skin Irrit.2; H315 Eye Dam.1; H318 Aquatic Acute1; H400 Aquatic Chronic2; H411	No data available	>= 0,25 - < 0,3

For explanation of abbreviations see section 16.

4. FIRST AID MEASURES

General advice : Never give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If inhaled : Move to fresh air.
Artificial respiration and/or oxygen may be necessary.
Consult a physician after significant exposure.

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.
Most important symptoms and effects, both acute and delayed	:	No cases of human intoxication are known and the symptoms of experimental intoxication are not known.
Notes to physician	:	Activated charcoal may be beneficial. Note: To prepare activated charcoal slurry, mix thoroughly 50 g of activated charcoal in 400 ml (about 2 cups) water. In case of ingestion, the stomach should be emptied by gastric lavage under qualified medical supervision. There is no specific antidote available. Treat symptomatically.

5. FIREFIGHTING MEASURES

Flammable properties

Flash point	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flammability (solid, gas)	:	Does not sustain combustion.
Suitable extinguishing media	:	Water spray Alcohol-resistant foam
Unsuitable extinguishing media	:	None known.
Specific hazards during firefighting	:	Exposure to combustion products may be a hazard to health.
Hazardous combustion products	:	Nitrogen oxides (NOx) Carbon oxides
Specific extinguishing methods	:	Remove undamaged containers from fire area if it is safe to do so. Evacuate area. Use water spray to cool unopened containers.
Further information	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Avoid dust formation. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
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.
Methods and materials for containment and 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. Sweep up and shovel. 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.

7. HANDLING AND STORAGE

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. 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.
Conditions for safe storage	:	Store in a closed container. Keep in properly labelled containers. Store in accordance with the particular national regulations.
Materials to avoid	:	Strong oxidizing agents
Packaging material	:	Unsuitable material: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
dicamba (ISO)	1918-00-9	MPC-STEL (aerosol)	1 mg/m3	RU OEL

	Further information: Class 2 - Highly dangerous, Substances which require special skin and eye protection			
Quartz	14808-60-7	MPC-TWA (Aerosol - total mass)	1 mg/m3	RU OEL
	Further information: aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous			
		MPC-STEL (Aerosol - total mass)	3 mg/m3	RU OEL
	Further information: aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous			
		TWA (Respirable dust)	0,1 mg/m3	2004/37/EC
sodium hydroxide	1310-73-2	MPC-STEL (aerosol)	0,5 mg/m3 (solution of sodium hydroxide)	RU OEL
	Further information: Class 2 - Highly dangerous, Substances which require special skin and eye protection			
Cristobalite	14464-46-1	MPC-TWA (Aerosol - total mass)	1 mg/m3	RU OEL
	Further information: aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous			
		MPC-STEL (Aerosol - total mass)	3 mg/m3	RU OEL
	Further information: aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous			
		TWA (Respirable dust)	0,1 mg/m3	2004/37/EC
Barden Clay	1332-58-7	MPC-TWA (aerosol)	8 mg/m3	RU OEL
	Further information: aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous			
		TWA (Respirable dust)	0,1 mg/m3	2004/37/EC

Engineering measures : Use only with adequate ventilation.

Personal protective equipment

Respiratory protection : Where there is potential for airborne exposures in excess of applicable limits, wear approved respiratory protection with dust/mist cartridge.

Hand protection

Remarks : Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical

		requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
Eye protection	:	Wear safety glasses with side shields. Additionally wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.
Skin and body protection	:	Wear clean, body-covering clothing.
Protective measures	:	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Use this product in accordance with its label.
Hygiene measures	:	Avoid contact with skin, eyes and clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Avoid breathing dust or vapour.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	extruded granules
Colour	:	light brown, light tan
Odour	:	slight, sweet
pH	:	6,3 Concentration: 10 g/L Method: CIPAC MT 75.3
Melting point/freezing point	:	No data available
Flash point	:	Not applicable
Flammability (solid, gas)	:	Does not sustain combustion.
Self-ignition	:	not auto-flammable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Density	:	Not applicable
Bulk density	:	880 kg/m3
Solubility(ies)		

Water solubility	:	dispersible
Viscosity		
Viscosity, dynamic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	No decomposition if stored and applied as directed. Stable under normal conditions.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned. None known.
Conditions to avoid	:	None known.
Incompatible materials	:	Strong acids Strong bases
Hazardous decomposition products	:	Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	LD50 (Rat, female): > 5.000 mg/kg Method: OECD Test Guideline 425 Symptoms: No deaths occurred at this concentration.
Acute inhalation toxicity	:	LC50 (Rat): > 5,4 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity	:	LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 402 Symptoms: No deaths occurred at this concentration.

Components:

dicamba (ISO):

Acute oral toxicity	:	LD50 (Rat): 1.040 - 1.707 mg/kg
Acute inhalation toxicity	:	Remarks: Prolonged excessive exposure to dust may cause adverse effects. Dust may cause irritation of the upper respiratory tract (nose and throat) and lungs.

LC50 (Rat): > 9,6 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

LC50 (Rat): 4,46 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

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

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

Barden Clay:

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

Rimsulfuron:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: Directive 67/548/EEC, Annex V, B.1.

Acute inhalation toxicity : LC50 (Rat): > 205,4 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Directive 67/548/EEC, Annex V, B.2.
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Method: Directive 67/548/EEC, Annex V, B.3.
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute dermal toxicity

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

Acute oral toxicity : Remarks: Low toxicity if swallowed.
Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50 (Rat): > 1.000 mg/kg
Method: Estimated.

Acute dermal toxicity : Remarks: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50 (Rabbit): > 1.000 mg/kg
Method: Estimated.

dicamba (ISO):

Acute oral toxicity : LD50 (Rat): 1.040 - 1.707 mg/kg

Acute inhalation toxicity : Remarks: Prolonged excessive exposure to dust may cause adverse effects.
Dust may cause irritation of the upper respiratory tract (nose and throat) and lungs.

LC50 (Rat): > 9,6 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

LC50 (Rat): 4,46 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

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

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

Rimsulfuron:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: Directive 67/548/EEC, Annex V, B.1.

Acute inhalation toxicity : LC50 (Rat): > 205,4 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Directive 67/548/EEC, Annex V, B.2.
Symptoms: No deaths occurred at this concentration.

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Method: Directive 67/548/EEC, Annex V, B.3.
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute dermal toxicity

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):

Skin corrosion/irritation

Product:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Components:

Nicosulfuron:

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

sodium hydroxide:

Species : Rabbit
Result : Causes severe burns.

Barden Clay:

Species : Rabbit
Result : No skin irritation

Rimsulfuron:

Species : Rabbit
Method : Directive 67/548/EEC, Annex V, B.4.
Result : No skin irritation

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

Result : Skin irritation

Nicosulfuron:

Species : Rabbit
Method : US EPA Test Guideline OPP 81-5

Result : No skin irritation

Rimsulfuron:

Species : Rabbit
Method : Directive 67/548/EEC, Annex V, B.4.
Result : No skin irritation

sodium hydroxide:

Species : Rabbit
Result : Causes severe burns.

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

Species : Rabbit
Result : Skin irritation

Serious eye damage/eye irritation

Product:

Species : Rabbit
Result : Eye irritation
Method : OECD Test Guideline 405

Components:

dicamba (ISO):

Result : Corrosive

Nicosulfuron:

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

sodium hydroxide:

Species : Rabbit
Result : Corrosive

Barden Clay:

Species : Rabbit
Result : No eye irritation

Rimsulfuron:

Species : Rabbit
Result : No eye irritation
Method : Directive 67/548/EEC, Annex V, B.5.

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

Result : Corrosive

dicamba (ISO):

Result	:	Corrosive

Nicosulfuron:

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

Rimsulfuron:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	Directive 67/548/EEC, Annex V, B.5.

sodium hydroxide:

Species	:	Rabbit
Result	:	Corrosive

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

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

Respiratory or skin sensitisation

Product:

Test Type	:	Maximisation Test
Species	:	Guinea pig
Assessment	:	Does not cause skin sensitisation.
Method	:	OECD Test Guideline 406

Components:

dicamba (ISO):

Remarks	:	Did not cause allergic skin reactions when tested in guinea pigs.
Remarks	:	For respiratory sensitization: No relevant data found.

Nicosulfuron:

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

sodium hydroxide:

Species	:	human
Assessment	:	Does not cause skin sensitisation.

Rimsulfuron:

Test Type	:	Maximisation Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitisation.

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

Remarks	:	For skin sensitization: Did not cause allergic skin reactions when tested in guinea pigs.
Remarks	:	For respiratory sensitization: No relevant data found.

dicamba (ISO):

Remarks	:	Did not cause allergic skin reactions when tested in guinea pigs.
Remarks	:	For respiratory sensitization: No relevant data found.

Nicosulfuron:

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

Rimsulfuron:

Test Type	:	Maximisation Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitisation.

sodium hydroxide:

Species	:	human
Assessment	:	Does not cause skin sensitisation.

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:

dicamba (ISO):

Germ cell mutagenicity - Assessment	:	In vitro genetic toxicity studies were negative in some cases and positive in other cases., Animal genetic toxicity studies were negative.

Nicosulfuron:

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

sodium hydroxide:

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

Rimsulfuron:

Germ cell mutagenicity - Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Animal testing did not show any mutagenic effects.

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

Germ cell mutagenicity - Assessment	:	In vitro genetic toxicity studies were negative., In vivo tests did not show genotoxic effects

dicamba (ISO):

Germ cell mutagenicity - Assessment	:	In vitro genetic toxicity studies were negative in some cases and positive in other cases., Animal genetic toxicity studies were negative.

Nicosulfuron:

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

Rimsulfuron:

Germ cell mutagenicity - Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Animal testing did not show any mutagenic effects.

sodium hydroxide:

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

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.

Rimsulfuron:

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

Nicosulfuron:

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

Rimsulfuron:

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

Reproductive toxicity

Components:

dicamba (ISO):

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

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.

Rimsulfuron:

Reproductive toxicity - Assessment	:	In animal studies, did not interfere with reproduction. Development effects were not observed in laboratory animals.

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

Reproductive toxicity - Assessment	:	In animal studies, did not interfere with fertility., In animal studies, did not interfere with reproduction. Has caused birth defects in laboratory animals only at doses toxic to the mother.

dicamba (ISO):

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

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.

Rimsulfuron:

Reproductive toxicity - Assessment	:	In animal studies, did not interfere with reproduction. Development effects were not observed in laboratory animals.

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.

sodium hydroxide:

Assessment	:	Material is corrosive. Material is not classified as a respiratory irritant; however, upper respiratory tract irritation or corrosivity may be expected.

Barden Clay:

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

Rimsulfuron:

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

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

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

Nicosulfuron:

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

Rimsulfuron:

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

sodium hydroxide:

Assessment : Material is corrosive. Material is not classified as a respiratory irritant; however, upper respiratory tract irritation or corrosivity may be expected.

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

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

STOT - repeated exposure

Product:

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

Repeated dose toxicity

Components:

dicamba (ISO):

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

Nicosulfuron:

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

sodium hydroxide:

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

Barden Clay:

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

Rimsulfuron:

Remarks : In animals, effects have been reported on the following organs:
Liver

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

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

dicamba (ISO):

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

Nicosulfuron:

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

Rimsulfuron:

Remarks : In animals, effects have been reported on the following organs:
Liver

sodium hydroxide:

Remarks : Based on available data, repeated exposures are not anticipated to cause additional 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

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.

sodium hydroxide:

Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

Barden Clay:

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

Rimsulfuron:

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

Benzenesulfonic acid, dodecyl-, branched, sodium salt:
Based on physical properties, not likely to be an aspiration hazard.

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

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

sodium hydroxide:
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., sodium salts:
Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to algae/aquatic plants	:	EbC50 (Pseudokirchneriella subcapitata (green algae)): 2,08 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 GLP: yes ErC50 (Pseudokirchneriella subcapitata (green algae)): 19,2 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 GLP: yes EyC50 (Lemna gibba (duckweed)): 0,00769 mg/l Exposure time: 7 d Method: OECD Test Guideline 221 GLP: yes

Components:

dicamba (ISO):

Toxicity to fish	:	Remarks: Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested). LC50 (Lepomis macrochirus (Bluegill sunfish)): 20 mg/l Exposure time: 48 h Method: Method Not Specified.

LC50 (Oncorhynchus mykiss (rainbow trout)): 28 - 153 mg/l
Exposure time: 96 h
Method: Method Not Specified.

LC50 (Lepomis macrochirus (Bluegill sunfish)): 135 - 180 mg/l
Exposure time: 4 d
Test Type: static test
Method: Method Not Specified.

LC50 (Cyprinodon variegatus (sheepshead minnow)): > 180 mg/l
Exposure time: 4 d
Test Type: static test
Method: Method Not Specified.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 110 - 750 mg/l
Exposure time: 48 h
Method: Method Not Specified.

LC50 (scud Gammarus sp.): 3,9 - 4,9 mg/l
Exposure time: 4 d

Toxicity to terrestrial organisms : Remarks: Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm)., Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg).

dietary LC50 (Colinus virginianus (Bobwhite quail)): > 10000 mg/kg diet.
Exposure time: 8 d

oral LD50 (Colinus virginianus (Bobwhite quail)): 216 mg/kg bodyweight.
Exposure time: 14 d

contact LD50 (Apis mellifera (bees)): > 100 micrograms/bee
Exposure time: 2 d

oral LD50 (Apis mellifera (bees)): > 100 micrograms/bee
Exposure time: 2 d

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).

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 (Oncorhynchus mykiss (rainbow trout)): 24 mg/l
Exposure time: 90 d
Test Type: Early Life-Stage
Method: OECD Test Guideline 210
GLP: yes

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

M-Factor (Chronic aquatic toxicity) : 10

Toxicity to terrestrial organisms : oral LD50 (Colinus virginianus (Bobwhite quail)): > 2.250 mg/kg
Method: US EPA Test Guideline OPP 71-1
GLP: yes

dietary LC50 (Anas platyrhynchos (Mallard duck)): > 5.620 mg/kg
Exposure time: 5 d
Method: US EPA Test Guideline OPP 71-2
GLP: yes

oral LD50 (Apis mellifera (bees)): 0,050 mg/kg
Exposure time: 48 h

Method: OECD Test Guideline 213
GLP: yes

oral LD50 (Apis mellifera (bees)): > 100 mg/kg
Exposure time: 48 h
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.

Rimsulfuron:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 390 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): > 360 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	EbC50 (Pseudokirchneriella subcapitata (green algae)): 1,2 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 GLP: yes ErC50 (Pseudokirchneriella subcapitata (green algae)): 2,8 mg/l Exposure time: 48 h Method: OECD Test Guideline 201 GLP: yes EC50 (Lemna gibba (duckweed)): 0,023 mg/l End point: Frond Exposure time: 14 d Method: US EPA Test Guideline OPP 122-2 & 123-2 GLP: yes EC50 (Lemna gibba (duckweed)): 0,017 mg/l End point: Biomass Exposure time: 14 d Method: US EPA Test Guideline OPP 122-2 & 123-2 GLP: yes ErC50 (Anabaena flos-aquae (cyanobacteria)): 5,2 mg/l Exposure time: 96 h Method: US EPA Test Guideline OPPTS 850.5400 GLP: yes

Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): 110 mg/l Exposure time: 90 d Test Type: Early Life-Stage Method: OECD Test Guideline 210 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0,82 mg/l Exposure time: 21 d Method: OECD Test Guideline 202 GLP: yes
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): 1.000 mg/kg Method: OECD Test Guideline 207 GLP: yes
Toxicity to terrestrial organisms	:	oral LD50 (Colinus virginianus (Bobwhite quail)): > 2.250 mg/kg Method: US EPA Test Guideline OPP 71-1 GLP: yes oral LD50 (Anas platyrhynchos (Mallard duck)): > 2.000 mg/kg Method: US EPA Test Guideline OPP 71-1 GLP: yes dietary LC50 (Colinus virginianus (Bobwhite quail)): > 5.620 mg/kg Exposure time: 8 d Method: OECD Test Guideline 205 dietary LC50 (Anas platyrhynchos (Mallard duck)): > 5.620 mg/kg Exposure time: 8 d Method: OECD Test Guideline 205 contact LD50 (Apis mellifera (bees)): > 100 µg/b Method: OEPP/EPPO Test Guideline 170 GLP: yes oral LD50 (Apis mellifera (bees)): > 1000 mg/b Method: OEPP/EPPO Test Guideline 170

Ecotoxicology Assessment

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

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

Ecotoxicology Assessment

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

dicamba (ISO):

Toxicity to fish	:	Remarks: Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested). LC50 (Lepomis macrochirus (Bluegill sunfish)): 20 mg/l Exposure time: 48 h Method: Method Not Specified. LC50 (Oncorhynchus mykiss (rainbow trout)): 28 - 153 mg/l Exposure time: 96 h Method: Method Not Specified. LC50 (Lepomis macrochirus (Bluegill sunfish)): 135 - 180 mg/l Exposure time: 4 d Test Type: static test Method: Method Not Specified. LC50 (Cyprinodon variegatus (sheepshead minnow)): > 180 mg/l Exposure time: 4 d Test Type: static test Method: Method Not Specified.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 110 - 750 mg/l Exposure time: 48 h Method: Method Not Specified. LC50 (scud Gammarus sp.): 3,9 - 4,9 mg/l Exposure time: 4 d
Toxicity to terrestrial organisms	:	Remarks: Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm)., Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg). dietary LC50 (Colinus virginianus (Bobwhite quail)): > 10000 mg/kg diet. Exposure time: 8 d oral LD50 (Colinus virginianus (Bobwhite quail)): 216 mg/kg bodyweight. Exposure time: 14 d contact LD50 (Apis mellifera (bees)): > 100 micrograms/bee Exposure time: 2 d oral LD50 (Apis mellifera (bees)): > 100 micrograms/bee Exposure time: 2 d

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).

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 (Oncorhynchus mykiss (rainbow trout)): 24 mg/l
Exposure time: 90 d
Test Type: Early Life-Stage
Method: OECD Test Guideline 210
GLP: yes

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

M-Factor (Chronic aquatic toxicity) : 10

Toxicity to terrestrial organisms : oral LD50 (Colinus virginianus (Bobwhite quail)): > 2.250 mg/kg
Method: US EPA Test Guideline OPP 71-1
GLP: yes

dietary LC50 (Anas platyrhynchos (Mallard duck)): > 5.620 mg/kg
Exposure time: 5 d
Method: US EPA Test Guideline OPP 71-2
GLP: yes

oral LD50 (Apis mellifera (bees)): 0,050 mg/kg
Exposure time: 48 h
Method: OECD Test Guideline 213
GLP: yes

oral LD50 (Apis mellifera (bees)): > 100 mg/kg
Exposure time: 48 h
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.

Rimsulfuron:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 390 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): > 360 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	EbC50 (Pseudokirchneriella subcapitata (green algae)): 1,2 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 GLP: yes ErC50 (Pseudokirchneriella subcapitata (green algae)): 2,8 mg/l Exposure time: 48 h Method: OECD Test Guideline 201 GLP: yes EC50 (Lemna gibba (duckweed)): 0,023 mg/l End point: Frond Exposure time: 14 d Method: US EPA Test Guideline OPP 122-2 & 123-2 GLP: yes EC50 (Lemna gibba (duckweed)): 0,017 mg/l End point: Biomass

Exposure time: 14 d
Method: US EPA Test Guideline OPP 122-2 & 123-2
GLP: yes

ErC50 (Anabaena flos-aquae (cyanobacteria)): 5,2 mg/l
Exposure time: 96 h
Method: US EPA Test Guideline OPPTS 850.5400
GLP: yes

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 110 mg/l
Exposure time: 90 d
Test Type: Early Life-Stage
Method: OECD Test Guideline 210
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0,82 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 202
GLP: yes

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): 1.000 mg/kg
Method: OECD Test Guideline 207
GLP: yes

Toxicity to terrestrial organisms : oral LD50 (Colinus virginianus (Bobwhite quail)): > 2.250 mg/kg
Method: US EPA Test Guideline OPP 71-1
GLP: yes

oral LD50 (Anas platyrhynchos (Mallard duck)): > 2.000 mg/kg
Method: US EPA Test Guideline OPP 71-1
GLP: yes

dietary LC50 (Colinus virginianus (Bobwhite quail)): > 5.620 mg/kg
Exposure time: 8 d
Method: OECD Test Guideline 205

dietary LC50 (Anas platyrhynchos (Mallard duck)): > 5.620 mg/kg
Exposure time: 8 d
Method: OECD Test Guideline 205

contact LD50 (Apis mellifera (bees)): > 100 µg/b
Method: OEPP/EPPO Test Guideline 170
GLP: yes

oral LD50 (Apis mellifera (bees)): > 1000 mg/b
Method: OEPP/EPPO Test Guideline 170

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 (Rainbow trout (Salmo gairdneri)): 0,23 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna): 1,18 mg/l Exposure time: 21 d

Persistence and degradability

Product:

Biodegradability	:	Remarks: Not readily biodegradable. Estimation based on data obtained on active ingredient.

Components:

Nicosulfuron:

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

Rimsulfuron:

Biodegradability	:	Result: Not readily biodegradable.

Nicosulfuron:

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

Rimsulfuron:

Biodegradability	:	Result: Not readily biodegradable.

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

Biodegradability	:	Result: Not biodegradable

Bioaccumulative potential

Product:

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

Components:

dicamba (ISO):

Partition coefficient: n-octanol/water	:	Remarks: Potential for mobility in soil is very high (Koc between 0 and 50). Bioconcentration potential is low (BCF < 100 or Log Pow < 3). log Pow: -1,69 - 3,01 Method: Estimated.

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).

sodium hydroxide:

Partition coefficient: n-octanol/water	:	Remarks: No bioconcentration is expected because of the relatively high water solubility.

Barden Clay:

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

Rimsulfuron:

Bioaccumulation	:	Remarks: Does not bioaccumulate.
Partition coefficient: n-octanol/water	:	Remarks: No relevant data found.

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

Partition coefficient: n-octanol/water	:	Remarks: No relevant data found.

dicamba (ISO):

Partition coefficient: n-octanol/water	:	Remarks: Potential for mobility in soil is very high (Koc between 0 and 50). Bioconcentration potential is low (BCF < 100 or Log Pow < 3). log Pow: -1,69 - 3,01 Method: Estimated.

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).

Rimsulfuron:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : Remarks: No relevant data found.

sodium hydroxide:

Partition coefficient: n-octanol/water : Remarks: No bioconcentration is expected because of the relatively high water solubility.

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

Mobility in soil

Product:

Distribution among environmental compartments : Remarks: The product is not expected to be mobile in soils. Under actual use conditions the product has a low potential of mobility in soil.

Components:

dicamba (ISO):

Distribution among environmental compartments : Koc: 0 - 470

Nicosulfuron:

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

sodium hydroxide:

Distribution among environmental compartments : Koc: 14
Method: Estimated.
Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

Distribution among environmental compartments : Remarks: No relevant data found.

dicamba (ISO):

Distribution among environmental compartments : Koc: 0 - 470

Nicosulfuron:

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

sodium hydroxide:

Distribution among environmental compartments	:	Koc: 14 Method: Estimated. Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

Other adverse effects

Components:

Nicosulfuron:

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

sodium hydroxide:

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

Barden Clay:

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

Rimsulfuron:

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

Benzenesulfonic acid, dodecyl-, branched, sodium salt:

Results of PBT and vPvB assessment	:	This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

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

Nicosulfuron:

Results of PBT and vPvB 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).

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

Rimsulfuron:

Results of PBT and vPvB 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).

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

sodium hydroxide:

Results of PBT and vPvB 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).

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

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : 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.

14. TRANSPORT INFORMATION

ADR

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Nicosulfuron)

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

UNRTDG

UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Nicosulfuron)
Class	:	9
Packing group	:	III
Labels	:	9

IATA-DGR

UN/ID No.	:	UN 3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (Nicosulfuron)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	956
Packing instruction (passenger aircraft)	:	956

IMDG-Code

UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Nicosulfuron)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes(Nicosulfuron)
Remarks	:	Stowage category A

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

Not applicable for product as supplied.

Further information

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.

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.

15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

Full text of H-Statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H313	May be harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H402	Harmful to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Met. Corr.	:	Corrosive to metals
Skin Corr.	:	Skin corrosion
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
RU OEL	:	SanPiN 1.2.3685-21 Table 2.1, Table 2.8, Table 2.16 & Table 2.17 Maximum permissible concentrations (MPC) in the air of the working area
2004/37/EC / TWA	:	Long term exposure limit
RU OEL / MPC-STEL	:	Maximum Permissible Concentration - Short Term Exposure
RU OEL / MPC-TWA	:	Maximum Permissible Concentration - 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; 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; 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; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Product code: GF-3981

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.

GE / 6N