SAFETY DATA SHEET

TRANSFORM, WG

Version	Revision Date:	SDS Number:	Date of last issue: -
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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 : TRANSFORM, 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 : End use insecticide product

2. HAZARDS IDENTIFICATION

GHS Classification

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

GHS-Labelling

Hazard pictograms :

Signal word : Warning

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

Precautionary statements : **Response:**

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container in accordance with applicable regulations.

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)
sulfoxaflor (ISO)	946578-00-3	Acute Tox.4; H302 Aquatic Acute1; H400 Aquatic Chronic1; H410	No data available	50,0269
Kaolin	1332-58-7		MPC-TWA: 8 mg/m3 aerosols of predominantly fibrogenic action, Class 3 - Moderately dangerous Data Source: RU OEL	>= 20 - < 25
Urea, polymer with formaldehyde	9011-05-6	Acute Tox.5; H303 Acute Tox.5; H313	No data available	>= 10 - < 20
Sodium N-methyl-N-oleoyltaurine	137-20-2	Acute Tox.5; H303 Acute Tox.5; H313 Eye Irrit.2A; H319 Aquatic Acute2; H401	No data available	>= 1 - < 2,5
2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate	6132-04-3	Aquatic Acute2; H401	No data available	>= 1 - < 2,5

For explanation of abbreviations see section 16.

4. FIRST AID MEASURES

If inhaled	:	Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.
In case of skin contact	:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
In case of eye contact	:	Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.
If swallowed	:	No emergency medical treatment necessary.
Most important symptoms and effects, both acute and delayed	:	None known.
Protection of first-aiders	:	If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	:	No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIREFIGHTING MEASURES

Flammable properties

Flash point	:	Not applicable
Ignition temperature	:	Method: EC Method A16 GLP: yes none below 400 degC
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	None known.
Specific hazards during firefighting	:	Exposure to combustion products may be a hazard to health. 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:

Carbon oxides
Nitrogen oxides (NOx)

Specific extinguishing methods	:	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.
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. Prevent from entering into soil, ditches, sewers,underwater. See Section 12, Ecological Information.
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. 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.
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.

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
Kaolin	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 local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

Personal protective equipment

Respiratory protection : Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

Hand protection

Remarks : Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.

Eye protection : Use chemical goggles.

Skin and body protection : No precautions other than clean body-covering clothing should be needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Granules.

Colour	:	White
Odour	:	Mild
Odour Threshold	:	No data available
pH	:	7,05 (24,8 °C) Concentration: 1 % Method: CIPAC MT 75.1 GLP: yes
Melting point/range	:	No data available
Freezing point		Not applicable
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	No data available
Density	:	Not applicable
Bulk density	:	0,42 g/cm3 (24,1 °C) Method: CIPAC MT 33 GLP: yes
Solubility(ies)		
Water solubility	:	No data available
Auto-ignition temperature	:	Method: EC Method A16 GLP: yes none below 400 degC
Viscosity		
Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive Method: Mechanical Impact @ 20.25 inches GLP: yes
Oxidizing properties	:	No significant increase (>5C) in temperature.

Method: EPA OPPTS 830.6314 (Oxidizing or Reducing Action)
GLP: yes

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.
Conditions to avoid	:	None known.
Incompatible materials	:	Strong acids Strong bases
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: Carbon oxides Nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 425 Symptoms: No deaths occurred at this concentration. Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity	:	LC50 (Rat, male and female): > 5,35 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 GLP: yes Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 402 Symptoms: No deaths occurred at this concentration.

Components:

sulfoxaflor (ISO):

Acute oral toxicity	:	LD50 (Rat, female): 1.000 mg/kg Remarks: Observations in animals include: Muscle spasms or twitches. Tremors. Convulsions.

Acute inhalation toxicity	:	LC50 (Rat): > 2,09 mg/l Test atmosphere: dust/mist Symptoms: The LC50 value is greater than the Maximum Attainable Concentration., No deaths occurred at this concentration. Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rat): > 5.000 mg/kg Symptoms: No deaths occurred at this concentration. Assessment: The substance or mixture has no acute dermal toxicity

Kaolin:

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

Urea, polymer with formaldehyde:

Acute oral toxicity	:	LD50 (Rat): > 2.000 mg/kg Method: Estimated.
Acute dermal toxicity	:	LD50 (Rat): > 2.000 mg/kg Method: Estimated.

Sodium N-methyl-N-oleoyltaurine:

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

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

Acute oral toxicity	:	LD50 (Rat): 11.700 mg/kg
Acute dermal toxicity	:	LD50 (Rat): > 2.000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Product:

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

Components:

sulfoxaflor (ISO):

Species	:	Rabbit
Result	:	No skin irritation

Kaolin:

Species	:	Rabbit
Result	:	No skin irritation

Serious eye damage/eye irritation

Product:

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

Components:

sulfoxaflor (ISO):

Species	:	Rabbit
Result	:	No eye irritation

Kaolin:

Species	:	Rabbit
Result	:	No eye irritation

Sodium N-methyl-N-oleoyltaurine:

Species	:	Rabbit
Result	:	Eye irritation

Respiratory or skin sensitisation

Product:

Test Type	:	Local lymph node assay
Species	:	Mouse
Assessment	:	Does not cause skin sensitisation.
Method	:	OECD Test Guideline 429
	:	Does not cause respiratory sensitisation.

Components:

sulfoxaflor (ISO):

Species	:	Mouse
Assessment	:	Does not cause skin sensitisation.

Sodium N-methyl-N-oleoyltaurine:

Species	:	Guinea pig
Assessment	:	Does not cause skin sensitisation.

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

Species	:	Guinea pig
Assessment	:	Does not cause skin sensitisation.

Germ cell mutagenicity

Components:

sulfoxaflor (ISO):

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

Sodium N-methyl-N-oleoyltaurine:

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

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

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

Carcinogenicity

Product:

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

Components:

sulfoxaflor (ISO):

Carcinogenicity - Assessment	:	Has caused cancer in laboratory animals., However, the effects are species specific and are not relevant to humans.

Kaolin:

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

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

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

Reproductive toxicity

Components:

sulfoxaflor (ISO):

Reproductive toxicity - Assessment	:	In animal studies, has been shown to interfere with reproduction., However, the effects are species specific and are not relevant to humans., These concentrations exceed relevant human dose levels. Has caused birth defects in lab animals at high doses., In laboratory animals, excessive doses toxic to the parent animals caused decreased weight and survival of offspring., However, the effects are species specific and are not relevant to humans.

Sodium N-methyl-N-oleoyltaurine:

Reproductive toxicity - Assessment	:	Screening studies suggest that this material does not affect reproduction.

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

Reproductive toxicity - Assessment	:	Did not cause birth defects in laboratory animals.

STOT - single exposure

Product:

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

Components:

sulfoxaflor (ISO):

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

Kaolin:

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

Urea, polymer with formaldehyde:

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

Sodium N-methyl-N-oleoyltaurine:

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

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

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

STOT - repeated exposure

Product:

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

Repeated dose toxicity

Components:

sulfoxaflor (ISO):

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

Kaolin:

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

Sodium N-methyl-N-oleoyltaurine:

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

Aspiration toxicity

Product:

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

Components:

sulfoxaflor (ISO):

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

Kaolin:

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

Urea, polymer with formaldehyde:

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

Sodium N-methyl-N-oleoyltaurine:

Based on available information, aspiration hazard could not be determined.

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 19,5 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203 or Equivalent
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Midge (Chironomus riparius)): 0,48 mg/l Exposure time: 96 h Test Type: static test EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202 or Equivalent

Toxicity to algae/aquatic plants	:	ErC50 (diatom Navicula sp.): > 100 mg/l End point: Growth rate inhibition Exposure time: 72 h Test Type: Growth inhibition
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): 1,050 mg/kg Exposure time: 14 d End point: survival
Toxicity to terrestrial organisms	:	oral LD50 (Colinus virginianus (Bobwhite quail)): 1655 mg/kg bodyweight. oral LD50 (Apis mellifera (bees)): 0,153 micrograms/bee Exposure time: 48 h contact LD50 (Apis mellifera (bees)): 0,448 micrograms/bee Exposure time: 48 h

Ecotoxicology Assessment

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

Components:

sulfoxaflor (ISO):

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 387 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203 or Equivalent LC50 (Lepomis macrochirus (Bluegill sunfish)): > 363 mg/l Exposure time: 96 h EC50 (Cyprinus carpio (Carp)): > 402 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 399 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 or Equivalent LC50 (Chironomus sp. (midge)): 0,622 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 201 or Equivalent ErC50 (Lemna gibba): > 100 mg/l Exposure time: 7 d

Toxicity to fish (Chronic toxicity)	:	NOEC (Pimephales promelas (fathead minnow)): > 12,9 mg/l End point: mortality Exposure time: 30 d Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 50,5 mg/l End point: growth Exposure time: 21 d Test Type: semi-static test NOEC (saltwater mysid Mysidopsis bahia): 0,114 mg/l End point: number of offspring Exposure time: 28 d Test Type: flow-through test Method: OECD Test Guideline 211 or Equivalent
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): 0,885 mg/kg
Toxicity to terrestrial organisms	:	dietary LC50 (Colinus virginianus (Bobwhite quail)): > 5620 mg/kg bodyweight. oral LD50 (Colinus virginianus (Bobwhite quail)): 676 mg/kg oral LD50 (Apis mellifera (bees)): 0,146 micrograms/bee Exposure time: 48 h contact LD50 (Apis mellifera (bees)): 0,539 micrograms/bee Exposure time: 48 d

Ecotoxicology Assessment

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

Urea, polymer with formaldehyde:

Toxicity to fish	:	LC50 (Fish): > 1.000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1.000 mg/l Exposure time: 48 h

Sodium N-methyl-N-oleoyltaurine:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 1,32 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 5,76 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 197 mg/l Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 2 mg/l Exposure time: 21 d

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

Toxicity to fish	:	LC50 (Poecilia reticulata (guppy)): 18 - 32 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (water flea Daphnia magna): 5,6 - 10 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Chlorella vulgaris (Fresh water algae)): 18 - 32 mg/l Exposure time: 96 h Method: OECD Test Guideline 201 or Equivalent
Toxicity to microorganisms	:	(Bacteria): > 1,8 - 3,2 mg/l Exposure time: 8 h

Persistence and degradability

Components:

sulfoxaflor (ISO):

Biodegradability	:	Result: Not biodegradable Biodegradation: 0 % Exposure time: 28 d Method: OECD Test Guideline 310 Remarks: Material is not readily biodegradable according to OECD/EEC guidelines.
ThOD	:	1,90 kg/kg
Photodegradation	:	Test Type: Half-life (indirect photolysis) Sensitiser: OH radicals Rate constant: 1,653E-11 cm3/s Method: Estimated.

Sodium N-methyl-N-oleoyltaurine:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 80 % Exposure time: 28 d Method: OECD Test Guideline 301B or Equivalent Remarks: 10-day Window: Pass Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 98 % Exposure time: 2 d Method: OECD Test Guideline 302 Remarks: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Biochemical Oxygen Demand (BOD)	:	364 mg/g
Chemical Oxygen Demand (COD)	:	480 mg/g

Bioaccumulative potential

Components:

sulfoxaflor (ISO):

Partition coefficient: n-octanol/water	:	log Pow: 0,802 (20 °C) pH: 7 Method: Measured Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Urea, polymer with formaldehyde:

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

Sodium N-methyl-N-oleoyltaurine:

Partition coefficient: n-octanol/water	:	Pow: 1,36 (20 °C) Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

Partition coefficient: n-octanol/water	:	log Pow: -1,8 - -0,2 Method: Calculated. Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Mobility in soil

Components:

sulfoxaflor (ISO):

Distribution among environmental compartments	:	Koc: 40 Method: Measured Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

Other adverse effects

Components:

sulfoxaflor (ISO):

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.

Kaolin:

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.

Urea, polymer with formaldehyde:

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.

Sodium N-methyl-N-oleoyltaurine:

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.

2-Hydroxy-1,2,3-Propanetricarboxylic Acid, Trisodium Salt, Dihydrate:

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. (Sulfoxaflor)
Class	:	9
Packing group	:	III
Labels	:	9
Hazard Identification Number	:	90
Tunnel restriction code	:	(-)
Environmentally hazardous	:	yes

UNRTDG

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

IATA-DGR

UN/ID No.	:	UN 3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (Sulfoxaflor)
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. (Sulfoxaflor)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes(Sulfoxaflor)
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

H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H313	May be harmful in contact with skin.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life.
H410	Very 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 Irrit.	:	Eye 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-TWA	:	Maximum Permissible Concentration - Time Weighted Average

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 - International 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.

Product code: GF-2372

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