

# SAFETY DATA SHEET



## QUELEX™

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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 the United States and may not meet the regulatory requirements in other countries.

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### SECTION 1. IDENTIFICATION

Product name : QUELEX™

#### Manufacturer or supplier's details

##### COMPANY IDENTIFICATION

**Manufacturer/importer** : CORTEVA AGRISCIENCE LLC  
9330 ZIONSVILLE RD  
INDIANAPOLIS, IN, 46268-1053  
UNITED STATES

**Customer Information Number** : 800-992-5994

**E-mail address** : customerinformation@corteva.com

**Emergency telephone** : INFOTRAC (CONTRACT 84224).  
800-992-5994 or 317-337-6009

#### Recommended use of the chemical and restrictions on use

Recommended use : End use herbicide product

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### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Eye irritation : Category 2B

#### GHS label elements

Signal Word : Warning

Hazard Statements : H320 Causes eye irritation.

Precautionary Statements : **Prevention:**  
P264 Wash skin thoroughly after handling.

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### Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)
Halauxifen-methyl	943831-98-9	10.42
florasulam (ISO)	145701-23-1	10
Cloquintocet	88349-88-6	7.08
Kaolin	1332-58-7	>= 10 - < 20
Sodium lignosulfonate	8061-51-6	>= 10 - < 20
Citric acid	77-92-9	>= 10 - < 20
Sodium N-methyl-N-oleoyltaurine	137-20-2	>= 1 - < 3
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	13463-67-7	>= 0.3 - < 1
Quartz	14808-60-7	>= 0.3 - < 1
Balance	Not Assigned	> 5

Actual concentration is withheld as a trade secret

## SECTION 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.  
Suitable emergency safety shower facility should be available in work area.
- 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 immediately available.
- If swallowed : No emergency medical treatment necessary.
- Most important symptoms and effects, both acute and : None known.

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delayed  
Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).  
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.

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### SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray  
Alcohol-resistant foam

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.  
Do not allow run-off from firefighting 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 (NO<sub>x</sub>)  
Carbon oxides

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 fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.  
Use personal protective equipment.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

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

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- 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 over-pressurization 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.

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### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapors/dust.  
Do not smoke.  
Handle in accordance with good industrial hygiene and safety practice.  
Smoking, eating and drinking should be prohibited in the application area.  
Do not get in eyes.  
Avoid contact with skin and eyes.  
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.
- 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 labeled containers.  
Store in accordance with the particular national regulations.
- Materials to avoid : Do not store near acids.  
Strong oxidizing agents
- Packaging material : Unsuitable material: None known.

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### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

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Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Kaolin	1332-58-7	TWA (Respirable particulate matter)	2 mg/m <sup>3</sup>	ACGIH
		TWA (total dust)	15 mg/m <sup>3</sup>	OSHA Z-1
		TWA (respirable fraction)	5 mg/m <sup>3</sup>	OSHA Z-1
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	13463-67-7	TWA	2.4 mg/m <sup>3</sup>	Dow IHG
		TWA (total dust)	15 mg/m <sup>3</sup>	OSHA Z-1
		TWA	10 mg/m <sup>3</sup> (Titanium dioxide)	ACGIH
Quartz	14808-60-7	TWA (Respirable dust)	0.05 mg/m <sup>3</sup>	OSHA Z-1
		TWA (respirable)	10 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO <sub>2</sub> +5	OSHA Z-3
		TWA (Respirable particulate matter)	0.025 mg/m <sup>3</sup> (Silica)	ACGIH
		PEL (respirable)	0.05 mg/m <sup>3</sup>	OSHA CARC

**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.  
 Local exhaust ventilation may be necessary for some 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, in dusty atmospheres, use an approved particulate respirator.

**Hand protection**

**Remarks** : Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Polyvinyl chloride ("PVC" or "vinyl"). Neoprene. Nitrile/butadiene rubber ("nitrile")

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Eye protection : Use chemical goggles.

Skin and body protection : Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Granules.

Color : Tan

Odor : Mild

Odor Threshold : No data available

pH : 4.5 (75.7 °F / 24.3 °C)  
Concentration: 1.0 %  
1% solution

Freezing point : Not applicable

Melting point/range : No data available.

Boiling point/boiling range : Not applicable

Flash point : Method: closed cup  
Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : Not applicable

Lower explosion limit / Lower flammability limit : Not applicable

Vapor pressure : Not applicable

Relative vapor density : Not applicable

Relative density : No data available

Density : No data available

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Bulk density : 0.5108 g/mL (75.0 °F / 23.9 °C)  
Method: Loose Volumetric

Solubility(ies)  
Water solubility : No data available

Autoignition temperature : 460 °F / 238 °C

Viscosity  
Viscosity, dynamic : Not applicable

Explosive properties : No

Oxidizing properties : No significant increase (>5C) in temperature.  
Reference substance: Monoammonium phosphate

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### SECTION 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 : 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

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

##### Product:

Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg  
Method: OECD Test Guideline 423  
Symptoms: No deaths occurred at this concentration.

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.68 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute inhalation toxicity

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Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg  
Method: OECD Test Guideline 402  
Symptoms: No deaths occurred at this concentration.

### **Components:**

#### **Halauxifen-methyl:**

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

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

#### **florasulam (ISO):**

Acute oral toxicity : LD50 (Rat): > 6,000 mg/kg

LD50 (Mouse): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.0 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute dermal toxicity

#### **Cloquintocet:**

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : Remarks: No adverse effects are anticipated from single exposure to dust.  
Based on the available data, respiratory irritation was not observed.

LC50 (Rat, male and female): > 6.11 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute inhalation toxicity

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

LD50 (Rat, male and female): > 5,000 mg/kg

#### **Kaolin:**

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



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**Sodium lignosulfonate:**

Acute oral toxicity : LD50 (Rat, male and female): > 10,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.48 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

**Citric acid:**

Acute oral toxicity : LD50 (Mouse): 5,400 mg/kg  
Assessment: The substance or mixture has no acute oral toxicity

LD50 (Rat): 3,000 - 12,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute dermal toxicity

**Sodium N-methyl-N-oleoyltaurine:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

**titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

Acute oral toxicity : LD50 (Rat): > 10,000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male): > 6.82 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): 10,000 mg/kg

**Skin corrosion/irritation****Product:**

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

**Components:****Kaolin:**

Species : Rabbit

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Result : No skin irritation

**Citric acid:**

Result : No skin irritation

**titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

Result : No skin irritation

**Quartz:**

Result : No skin irritation

**Serious eye damage/eye irritation****Product:**

Species : Rabbit  
Result : Mild eye irritation  
Method : OECD Test Guideline 405

**Components:****Kaolin:**

Species : Rabbit  
Result : No eye irritation

**Sodium lignosulfonate:**

Result : Eye irritation

**Citric acid:**

Result : Eye irritation

**Sodium N-methyl-N-oleoyltaurine:**

Species : Rabbit  
Result : Eye irritation

**titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

Result : No eye irritation

**Quartz:**

Result : No eye irritation

**Respiratory or skin sensitization****Product:**

Test Type : Local lymph node assay (LLNA)  
Species : Mouse

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Assessment Method : Does not cause skin sensitization.  
: OECD Test Guideline 429

### **Components:**

#### **Halauxifen-methyl:**

Remarks : Did not demonstrate the potential for contact allergy in mice.

Remarks : For respiratory sensitization:  
No relevant data found.

#### **florasulam (ISO):**

Remarks : Did not cause allergic skin reactions when tested in guinea pigs.

Remarks : For respiratory sensitization:  
No relevant data found.

#### **Cloquintocet:**

Assessment : Does not cause skin sensitization.  
Remarks : Did not demonstrate the potential for contact allergy in mice.

Remarks : For respiratory sensitization:  
No relevant data found.

#### **Sodium lignosulfonate:**

Remarks : Did not cause allergic skin reactions when tested in guinea pigs.

Remarks : For respiratory sensitization:  
No relevant data found.

#### **Sodium N-methyl-N-oleoyltaurine:**

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

#### **titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

Remarks : Did not demonstrate the potential for contact allergy in mice.  
Did not cause allergic skin reactions when tested in guinea pigs.

Remarks : For respiratory sensitization:  
No relevant data found.

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**Germ cell mutagenicity****Components:****Halauxifen-methyl:**

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

**florasulam (ISO):**

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

**Cloquintocet:**

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

**Sodium lignosulfonate:**

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

**Citric acid:**

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.

**titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

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.

**Quartz:**

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

**Carcinogenicity****Product:**

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

**Components:****Halauxifen-methyl:**

Carcinogenicity - Assessment : For similar active ingredient(s)., Halauxifen., Did not cause cancer in laboratory animals.

**florasulam (ISO):**

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

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**Cloquintocet:**

Carcinogenicity - Assessment : For similar active ingredient(s), Cloquintocet-mexyl., Did not cause cancer in laboratory animals.

**Kaolin:**

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

**Citric acid:**

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

**titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

Carcinogenicity - Assessment : Lung fibrosis and tumors have been observed in rats exposed to titanium dioxide in two lifetime inhalation studies. Effects are believed to be due to overloading of the normal respiratory clearance mechanisms caused by the extreme study conditions. Workers exposed to titanium dioxide in the workplace have not shown an unusual incidence of chronic respiratory disease or lung cancer. Titanium dioxide was not carcinogenic in laboratory animals in lifetime feeding studies.

**Quartz:**

Carcinogenicity - Assessment : Human carcinogen.

Has caused cancer in humans., Has caused cancer in laboratory animals.

<b>IARC</b>	Group 1: Carcinogenic to humans Kaolin (Silica dust, crystalline)	1332-58-7
	Group 1: Carcinogenic to humans Quartz (Silica dust, crystalline)	14808-60-7
	Group 2B: Possibly carcinogenic to humans titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	13463-67-7
<b>OSHA</b>	OSHA specifically regulated carcinogen Quartz (crystalline silica)	14808-60-7
<b>NTP</b>	Known to be human carcinogen Kaolin (Silica, Crystalline (Respirable Size))	1332-58-7
	Known to be human carcinogen Quartz (Silica, Crystalline (Respirable Size))	14808-60-7

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**Reproductive toxicity****Components:****Halauxifen-methyl:**

Reproductive toxicity - Assessment : For similar active ingredient(s), Halauxifen., In animal studies, did not interfere with reproduction. Has been toxic to the fetus in laboratory animals at doses toxic to the mother., Did not cause birth defects in laboratory animals.

**florasulam (ISO):**

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction. Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

**Cloquintocet:**

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction. For similar active ingredient(s), Cloquintocet-mexyl., Did not cause birth defects or any other fetal effects in laboratory animals.

**Citric acid:**

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

**Sodium N-methyl-N-oleoyltaurine:**

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

**Quartz:**

Reproductive toxicity - Assessment : For similar material(s);, 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:****Halauxifen-methyl:**

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

**Cloquintocet:**

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

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### **Kaolin:**

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

### **Citric acid:**

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

### **Sodium N-methyl-N-oleoyltaurine:**

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

### **titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

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

### **Quartz:**

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.

#### **Components:**

##### **Quartz:**

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

### **Repeated dose toxicity**

#### **Components:**

##### **Halauxifen-methyl:**

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

##### **florasulam (ISO):**

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

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**Cloquintocet:**

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

**Kaolin:**

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

**Sodium lignosulfonate:**

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

**Citric acid:**

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

**Sodium N-methyl-N-oleoyltaurine:**

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

**titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter  $\leq 10 \mu\text{m}$ ]:**

Remarks : Repeated excessive inhalation exposures to dusts may cause respiratory effects.  
In animals, effects have been reported on the following organs:  
Lung.

**Quartz:**

Remarks : In humans, effects have been reported on the following organs:  
Kidney.  
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:****Halauxifen-methyl:**

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

**florasulam (ISO):**

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



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**Cloquintocet:**

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

**Kaolin:**

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

**Sodium lignosulfonate:**

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

**Citric acid:**

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.

**titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

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

**Quartz:**

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

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**SECTION 12. ECOLOGICAL INFORMATION**
**Ecotoxicity****Product:**

Toxicity to fish	:	Remarks: For similar material(s): 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)): 26.7 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 72.4 mg/l Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.272 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

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ErC50 (*Lemna gibba* (gibbous duckweed)): 0.0087 mg/l  
 Exposure time: 7 d  
 Method: OECD Test Guideline 221

NOEC (*Lemna gibba* (gibbous duckweed)): 0.0026 mg/l  
 Exposure time: 7 d  
 Method: OECD Test Guideline 221

ErC50 (*Myriophyllum spicatum*): 0.0025 mg/l  
 Exposure time: 14 d

NOEC (*Myriophyllum spicatum*): 0.00098 mg/l  
 Exposure time: 14 d

EbC50 (*Pseudokirchneriella subcapitata* (green algae)): 0.0512 mg/l  
 Exposure time: 72 h  
 Method: OECD Test Guideline 201

EyC50 (*Pseudokirchneriella subcapitata* (green algae)): 0.0505 mg/l  
 Exposure time: 72 h  
 Method: OECD Test Guideline 201

Toxicity to soil dwelling organisms : LC50 (*Eisenia fetida* (earthworms)): > 1,000 mg/kg  
 Exposure time: 14 d  
 End point: mortality

Toxicity to terrestrial organisms : oral LD50 (*Colinus virginianus* (Bobwhite quail)): > 2000 mg/kg bodyweight.  
 End point: mortality

oral LD50 (*Apis mellifera* (bees)): > 212.5 micrograms/bee  
 Exposure time: 48 h  
 End point: mortality  
 Method: OECD Test Guideline 213

contact LD50 (*Apis mellifera* (bees)): > 200 micrograms/bee  
 Exposure time: 48 h  
 End point: mortality  
 Method: OECD Test Guideline 214

**Components:****Halauxifen-methyl:**

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 (Rainbow trout (*Oncorhynchus mykiss*)): 2.01 mg/l  
 Exposure time: 96 h  
 Test Type: static test

LC50 (*Pimephales promelas* (fathead minnow)): > 3.22 mg/l  
 Exposure time: 96 h

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- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.12 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 3.0 mg/l  
Exposure time: 96 h  
  
ErC50 (Myriophyllum spicatum): 0.000393 mg/l  
End point: Growth rate inhibition  
Exposure time: 14 d
- M-Factor (Acute aquatic toxicity) : 1,000
- Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.259 mg/l  
End point: Other  
Test Type: flow-through test  
  
NOEC (Cyprinodon variegatus (sheepshead minnow)): 0.00272 mg/l  
Exposure time: 36 d  
Test Type: flow-through test
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.484 mg/l  
End point: number of offspring  
Exposure time: 21 d  
Test Type: semi-static test
- M-Factor (Chronic aquatic toxicity) : 1,000
- Toxicity to microorganisms : EC50 (activated sludge): > 981 mg/l  
Exposure time: 1 d
- Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg  
Exposure time: 14 d  
End point: mortality
- Toxicity to terrestrial organisms : Remarks: Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg)., Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).  
  
dietary LC50 (Colinus virginianus (Bobwhite quail)): > 5,620 ppm  
Exposure time: 5 d  
Method: Other guidelines  
  
dietary LC50 (Anas platyrhynchos (Mallard duck)): > 5,620 ppm  
Exposure time: 5 d  
Method: Other guidelines  
  
oral LD50 (Colinus virginianus (Bobwhite quail)): > 2250 mg/kg bodyweight.

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End point: mortality

contact LD50 (*Apis mellifera* (bees)): > 98.1 µg/bee

Exposure time: 48 h

End point: mortality

oral LD50 (*Apis mellifera* (bees)): > 108 µg/bee

Exposure time: 48 h

End point: mortality

**Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

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

**florasulam (ISO):**

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)): > 100 mg/l

Exposure time: 96 h

Test Type: static test

Method: OECD Test Guideline 203 or Equivalent

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 292 mg/l

Exposure time: 48 h

Test Type: static test

Method: OECD Test Guideline 202 or Equivalent

Toxicity to algae/aquatic plants : ErC50 (*Pseudokirchneriella subcapitata* (green algae)): 0.00894 mg/l

End point: Growth rate inhibition

Exposure time: 72 h

Test Type: static test

Method: OECD Test Guideline 201 or Equivalent

EC50 (*Myriophyllum spicatum*): > 0.305 mg/l

End point: Growth inhibition

Exposure time: 14 d

M-Factor (Acute aquatic toxicity) : 100

Toxicity to fish (Chronic toxicity) : NOEC (*Oncorhynchus mykiss* (rainbow trout)): 119 mg/l

End point: mortality

Exposure time: 28 d

Test Type: flow-through test

NOEC (*Pimephales promelas* (fathead minnow)): > 2.9 mg/l

End point: Other

Exposure time: 33 d

Test Type: flow-through test

Toxicity to daphnia and other : NOEC (*Daphnia magna* (Water flea)): 38.90 mg/l

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aquatic invertebrates (Chronic toxicity)

End point: growth  
Exposure time: 21 d  
Test Type: semi-static test

MATC (Maximum Acceptable Toxicant Level) (*Daphnia magna* (Water flea)): 50.2 mg/l  
End point: growth  
Exposure time: 21 d  
Test Type: semi-static test

M-Factor (Chronic aquatic toxicity)

: 100

Toxicity to soil dwelling organisms

: LC50 (*Eisenia fetida* (earthworms)): > 1,320 mg/kg  
Exposure time: 14 d

Toxicity to terrestrial organisms

: Remarks: Material is slightly toxic to birds on an acute basis (LD50 between 501 and 2000 mg/kg)., Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).

oral LD50 (*Coturnix japonica* (Japanese quail)): 1047 mg/kg bodyweight.

dietary LC50 (*Anas platyrhynchos* (Mallard duck)): > 5,000 ppm  
Exposure time: 8 d

oral LD50 (*Apis mellifera* (bees)): > 100 micrograms/bee  
Exposure time: 48 h

contact LD50 (*Apis mellifera* (bees)): > 100 micrograms/bee  
Exposure time: 48 h

### **Cloquintocet:**

Toxicity to fish

: Remarks: Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

LC50 (*Sheepshead minnow* (*Cyprinodon variegatus*)): > 120 mg/l  
Exposure time: 96 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates

: EC50 (*Oyster shell* (*Crassostrea virginica*)): > 110 mg/l  
Exposure time: 96 h

LC50 (*Mysid shrimp* (*Mysidopsis bahia*)): > 120 mg/l  
Exposure time: 96 h  
Test Type: semi-static test

Toxicity to algae/aquatic plants

: ErC50 (*Pseudokirchneriella subcapitata* (green algae)): 66.5 mg/l  
Exposure time: 72 h  
Test Type: static test

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ErC50 (*Skeletonema costatum* (marine diatom)): 12.5 mg/l  
Exposure time: 96 h

ErC50 (*Anabaena flos-aquae* (cyanobacterium)): 23.7 mg/l  
Exposure time: 96 h

Toxicity to fish (Chronic toxicity) : NOEC (*Pimephales promelas* (fathead minnow)): 0.143 mg/l  
Exposure time: 33 d  
Test Type: flow-through test

Toxicity to terrestrial organisms : Remarks: Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

oral LD50 (*Colinus virginianus* (Bobwhite quail)): > 2250 mg/kg bodyweight.

contact LD50 (*Apis mellifera* (bees)): > 200 µg/bee  
Exposure time: 48 h

### Sodium lignosulfonate:

Toxicity to fish : Remarks: Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50 (*Pimephales promelas* (fathead minnow)): 615 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC50 (*Daphnia magna* (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202 or Equivalent  
Remarks: For this family of materials:

### Citric acid:

Toxicity to fish : Remarks: Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50 (*Lepomis macrochirus* (Bluegill sunfish)): 1,516 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203 or Equivalent

LC50 (*Leuciscus idus* (Golden orfe)): 440 - 760 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203 or Equivalent

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 1,535 mg/l  
Exposure time: 24 h  
Test Type: Static  
Method: OECD Test Guideline 202 or Equivalent

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**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

**titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

Toxicity to fish	:	Remarks: Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).  NOEC mortality (Leuciscus idus (Golden orfe)): > 1,000 mg/l Exposure time: 48 h Test Type: static test
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 48 h Test Type: static test

**Quartz:**

Toxicity to fish	:	Remarks: Not expected to be acutely toxic to aquatic organisms.
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**Ecotoxicology Assessment**

Acute aquatic toxicity	:	This product has no known ecotoxicological effects.
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**Persistence and degradability****Components:****Halauxifen-methyl:**

Biodegradability	:	Result: Not biodegradable. Remarks: For similar active ingredient(s). Halauxifen. Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.  Biodegradation: 7.7 % Exposure time: 28 d Method: OECD Test Guideline 310 or Equivalent Remarks: 10-day Window: Not applicable
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**florasulam (ISO):**

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Biodegradability : Result: Not biodegradable.  
Remarks: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

Biodegradation: 2 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B or Equivalent  
Remarks: 10-day Window: Fail

Biochemical Oxygen Demand (BOD) : 0.012 kg/kg  
Incubation time: 5 d

ThOD : 0.85 kg/kg

Stability in water : Degradation half life: > 30 d

Photodegradation : Rate constant: 7.04E-11 cm<sup>3</sup>/s  
Method: Estimated.

### **Sodium lignosulfonate:**

Biodegradability : Remarks: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

Biodegradation: < 5 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301E  
Remarks: 10-day Window: Fail

Photodegradation : Rate constant: 1.089E-10 cm<sup>3</sup>/s  
Method: Estimated.

### **Citric acid:**

Biodegradability : Remarks: Material is expected to be readily biodegradable. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

aerobic  
Result: Readily biodegradable.  
Biodegradation: 97 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B or Equivalent  
Remarks: 10-day Window: Pass

aerobic  
Biodegradation: 98 %  
Exposure time: 7 d  
Method: OECD Test Guideline 302B or Equivalent  
Remarks: 10-day Window: Not applicable

### **Sodium N-methyl-N-oleoyltaurine:**

Biodegradability : Result: Readily biodegradable.



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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.

**titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter  $\leq 10 \mu\text{m}$ ]:**

Biodegradability : Remarks: Biodegradation is not applicable.

**Quartz:**

Biodegradability : Remarks: Biodegradation is not applicable.

**Bioaccumulative potential**

**Components:**

**Halauxifen-methyl:**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
Bioconcentration factor (BCF): 233  
Exposure time: 42 d  
Temperature: 71.2 °F / 21.8 °C  
Concentration: 0.00194 mg/l

Partition coefficient: n-octanol/water : log Pow: 3.76  
Remarks: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

**florasulam (ISO):**

Bioaccumulation : Species: Fish  
Bioconcentration factor (BCF): 0.8  
Exposure time: 28 d  
Temperature: 55 °F / 13 °C  
Method: Measured

Partition coefficient: n-octanol/water :  
log Pow: -1.22  
pH: 7.0  
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Cloquintocet:**

Partition coefficient: n-octanol/water : log Pow: 2.12  
Method: Estimated.  
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Sodium lignosulfonate:**

Bioaccumulation : Species: Fish

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Bioconcentration factor (BCF): 3.2

Partition coefficient: n-octanol/water :

log Pow: -3.45

Method: Estimated.

Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

### Citric acid:

Bioaccumulation :

Species: Fish

Bioconcentration factor (BCF): 0.01

Method: Measured

Partition coefficient: n-octanol/water :

log Pow: -1.72 (68 °F / 20 °C)

Method: Measured

Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

### Sodium N-methyl-N-oleoyltaurine:

Partition coefficient: n-octanol/water :

Pow: 1.36 (68 °F / 20 °C)

Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

### titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:

Partition coefficient: n-octanol/water :

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

### Quartz:

Partition coefficient: n-octanol/water :

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

### Balance:

Partition coefficient: n-octanol/water :

Remarks: No relevant data found.

### Mobility in soil

#### Components:

#### Halauxifen-methyl:

Distribution among environmental compartments :

Koc: 5684

Remarks: Expected to be relatively immobile in soil (Koc > 5000).

#### florasulam (ISO):

Distribution among environmental compartments :

Koc: 4 - 54

Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

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Stability in soil : Dissipation time: 0.7 - 4.5 d

### **Cloquintocet:**

Distribution among environmental compartments : Koc: 206  
Method: Estimated.  
Remarks: Potential for mobility in soil is medium (Koc between 150 and 500).

### **Sodium lignosulfonate:**

Distribution among environmental compartments : Koc: > 99999  
Method: Estimated.  
Remarks: Expected to be relatively immobile in soil (Koc > 5000).

### **Citric acid:**

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

### **titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

Distribution among environmental compartments : Remarks: No data available.

### **Quartz:**

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

### **Balance:**

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

### **Other adverse effects**

### **Components:**

#### **Halauxifen-methyl:**

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.

#### **florasulam (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.

#### **Cloquintocet:**

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

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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.

**Sodium lignosulfonate:**

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.

**Citric acid:**

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 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.

**titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]:**

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.

**Quartz:**

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.

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**Balance:**

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.

**SECTION 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.

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

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

**IATA-DGR**

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

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### IMDG-Code

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

### Domestic regulation

#### 49 CFR

Not regulated as a dangerous good

### 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 5L 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.

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## SECTION 15. REGULATORY INFORMATION

**SARA 311/312 Hazards** : Serious eye damage or eye irritation

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### US State Regulations

#### Pennsylvania Right To Know

Kaolin 1332-58-7  
dichloromethane 75-09-2

#### California Prop. 65

WARNING: This product can expose you to chemicals including Kaolin, Quartz, dichloromethane, 4-methylpentan-2-one, which is/are known to the State of California to cause cancer, and 4-methylpentan-2-one, methanol, toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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### The ingredients of this product are reported in the following inventories:

TSCA : Product contains substance(s) not listed on TSCA inventory.

### TSCA list

No substances are subject to a Significant New Use Rule.

The following substance(s) is/are subject to TSCA 12(b) export notification requirements:

Cloquintocet 88349-88-6

### Federal Insecticide, Fungicide and Rodenticide Act

EPA Registration Number : 62719-661

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

### CAUTION

Harmful if absorbed through skin  
Causes moderate eye irritation

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## 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 other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
Dow IHG : Dow Industrial Hygiene Guideline  
OSHA CARC : OSHA Specifically Regulated Chemicals/Carcinogens  
OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants  
OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts  
ACGIH / TWA : 8-hour, time-weighted average  
Dow IHG / TWA : Time weighted average  
OSHA CARC / PEL : Permissible exposure limit (PEL)  
OSHA Z-1 / TWA : 8-hour time weighted average  
OSHA Z-3 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency

# SAFETY DATA SHEET



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Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance 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

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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.

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