

# SAFETY DATA SHEET



## Crew™

Version 1.0      Revision Date: 04/29/2022      SDS Number: 800080005804      Date of last issue: -  
Date of first issue: 04/29/2022

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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 : Crew™

#### 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)

Carcinogenicity : Category 1A

#### GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H350 May cause cancer.

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Precautionary Statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

**Storage:**  
P405 Store locked up.

**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**  
None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)
isoxaben (ISO)	82558-50-7	0.5
Dithiopyr	97886-45-8	0.25
Silica, crystalline (quartz)	14808-60-7	>= 3 - < 10
Balance	Not Assigned	> 80

Actual concentration is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

If inhaled : Move person to fresh air; if effects occur, consult a physician.  
In case of skin contact : Wash off with plenty of water.  
In case of eye contact : Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes then continue flushing for several minutes. Only mechanical effects expected. If effects occur, consult a physician, preferably an ophthalmologist.

If swallowed : No emergency medical treatment necessary.  
Most important symptoms and effects, both acute and delayed : None known.

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.

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Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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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 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.
- 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 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.

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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.

### SECTION 7. HANDLING AND STORAGE

- Local/Total ventilation : Use with local exhaust ventilation.
- Advice on safe handling : Do not breathe vapors/dust.  
Do not smoke.  
Handle in accordance with good industrial hygiene and safety practice.  
Avoid exposure - obtain special instructions before use.  
Smoking, eating and drinking should be prohibited in the application area.  
Do not get on skin or clothing.  
Avoid inhalation of vapor or mist.  
Avoid contact with skin and eyes.  
Keep container tightly closed.  
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  
Organic peroxides  
Explosives  
Gases
- Packaging material : Unsuitable material: None known.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Silica, crystalline (quartz)	14808-60-7	TWA (Respirable dust)	0.05 mg/m3	OSHA Z-1
		TWA (respirable)	10 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3

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		TWA (Respirable particulate matter)	0.025 mg/m3 (Silica)	ACGIH
		TWA (respirable dust fraction)	0.1 mg/m3	OSHA P0
		PEL (respirable)	0.05 mg/m3	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. In dusty or misty atmospheres, use an approved particulate 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 safety glasses (with side shields).  
If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

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

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** : granules

**Color** : Gray

**Odor** : Faint

**Odor Threshold** : No data available

**pH** : 4.33

**Freezing point** : Not applicable

**Melting point/range** : No data available

**Boiling point/boiling range** : Not applicable

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Flash point : 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 : 2.2

Bulk density : No data available

Solubility(ies)  
Water solubility : insoluble

Autoignition temperature : No data available

Viscosity  
Viscosity, dynamic : Not applicable

Explosive properties : No data available

Oxidizing properties : No data available

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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 : None.

Hazardous decomposition products : Decomposition products depend upon temperature, air supply and the presence of other materials.

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

##### Product:

Acute oral toxicity : LD50 (Rat): 22,500 mg/kg

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### Components:

#### **isoxaben (ISO):**

- Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
- Acute inhalation toxicity : Remarks: Prolonged excessive exposure to dust may cause adverse effects.  
Based on the available data, narcotic effects were not observed.  
Based on the available data, respiratory irritation was not observed.
- LC50 (Rat, male and female): > 2.93 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity
- Symptoms: No deaths occurred at this concentration.  
Remarks: Maximum attainable concentration.
- Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg  
Symptoms: No deaths occurred at this concentration.  
Assessment: The substance or mixture has no acute dermal toxicity

#### **Dithiopyr:**

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Symptoms: No deaths occurred at this concentration.
- Acute inhalation toxicity : Remarks: No adverse effects are anticipated from inhalation.  
Based on the available data, narcotic effects were not observed.  
Based on the available data, respiratory irritation was not observed.
- LC50 (Rat): > 5.98 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Symptoms: No deaths occurred at this concentration.
- Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Symptoms: No deaths occurred at this concentration.

### **Skin corrosion/irritation**

#### Product:

- Remarks : May cause skin irritation due to mechanical abrasion.

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### Components:

#### **Silica, crystalline (quartz):**

Result : No skin irritation

#### **Serious eye damage/eye irritation**

### Product:

Remarks : Solid or dust may cause irritation or corneal injury due to mechanical action.

### Components:

#### **Silica, crystalline (quartz):**

Result : No eye irritation

#### **Respiratory or skin sensitization**

### Components:

#### **isoxaben (ISO):**

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

Remarks : For respiratory sensitization:  
No relevant data found.

#### **Dithiopyr:**

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

Remarks : For respiratory sensitization:  
No relevant data found.

#### **Germ cell mutagenicity**

### Components:

#### **isoxaben (ISO):**

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

#### **Dithiopyr:**

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

#### **Silica, crystalline (quartz):**

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



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### Carcinogenicity

#### Product:

Carcinogenicity - Assessment : Human carcinogen.

#### Components:

##### **isoxaben (ISO):**

Carcinogenicity - Assessment : An increase in nonmalignant liver tumors was observed with isoxaben in one of two species tested.

##### **Dithiopyr:**

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

##### **Silica, crystalline (quartz):**

Carcinogenicity - Assessment : Human carcinogen.  
Has caused cancer in humans., Has caused cancer in laboratory animals.

**IARC**      Group 1: Carcinogenic to humans  
Silica, crystalline (quartz)      14808-60-7  
(Silica dust, crystalline)

**OSHA**      OSHA specifically regulated carcinogen  
Silica, crystalline (quartz)      14808-60-7  
(crystalline silica)

**NTP**      Known to be human carcinogen  
Silica, crystalline (quartz)      14808-60-7  
(Silica, Crystalline (Respirable Size))

### Reproductive toxicity

#### Components:

##### **isoxaben (ISO):**

Reproductive toxicity - Assessment : In animal studies, has been shown to interfere with reproduction in females., Effects have been seen only at doses that produced significant toxicity to the parent animals.  
Has caused birth defects in laboratory animals only at doses toxic to the mother.

##### **Dithiopyr:**

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

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### **Silica, crystalline (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 : Available data are inadequate to determine single exposure specific target organ toxicity.

#### **Components:**

#### **isoxaben (ISO):**

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

### **Silica, crystalline (quartz):**

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

### **STOT-repeated exposure**

#### **Components:**

#### **Silica, crystalline (quartz):**

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

### **Repeated dose toxicity**

#### **Components:**

#### **isoxaben (ISO):**

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

#### **Dithiopyr:**

Remarks : For similar material(s):  
In animals, effects have been reported on the following organs:  
Liver.  
Kidney.  
Adrenal gland.  
Thyroid.  
Gall bladder.  
Blood.

### **Silica, crystalline (quartz):**

Remarks : In humans, effects have been reported on the following or-

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

### Aspiration toxicity

#### Components:

##### **isoxaben (ISO):**

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

##### **Dithiopyr:**

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

##### **Silica, crystalline (quartz):**

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

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **isoxaben (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)): 1.2 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203 or Equivalent  
Remarks: The LC50 value is above the water solubility.
- LC50 (Cyprinodon variegatus (sheepshead minnow)): > 0.87 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203 or Equivalent  
Remarks: The LC50 value is above the water solubility.
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.3 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202 or Equivalent
- Toxicity to algae/aquatic plants : EbC50 (Lemna minor (duckweed)): 0.011 mg/l  
End point: Biomass  
Exposure time: 7 d  
Test Type: static test  
Method: OECD Test Guideline 201 or Equivalent

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ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1.2 mg/l  
End point: Growth rate inhibition  
Exposure time: 72 h  
Test Type: static test

ErC50 (Skeletonema costatum (marine diatom)): > 0.49 mg/l  
Exposure time: 72 h  
Test Type: static test

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.4 mg/l  
End point: growth  
Exposure time: 33 d  
Test Type: semi-static test

LOEC (Pimephales promelas (fathead minnow)): > 0.40 mg/l  
End point: growth  
Exposure time: 33 d  
Test Type: semi-static test

MATC (Maximum Acceptable Toxicant Level) (Pimephales promelas (fathead minnow)): > 0.40 mg/l  
End point: growth  
Exposure time: 33 d  
Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.69 mg/l  
End point: growth  
Exposure time: 21 d  
Test Type: static test  
Method: OECD Test Guideline 211 or Equivalent

LOEC (Daphnia magna (Water flea)): 1.01 mg/l  
End point: growth  
Exposure time: 21 d  
Test Type: static test  
Method: OECD Test Guideline 211 or Equivalent

MATC (Maximum Acceptable Toxicant Level) (Daphnia magna (Water flea)): 0.85 mg/l  
End point: growth  
Exposure time: 21 d  
Test Type: static test  
Method: OECD Test Guideline 211 or Equivalent

NOEC (saltwater mysid Mysidopsis bahia): 0.841 mg/l  
Exposure time: 28 d  
Test Type: flow-through test

LOEC (saltwater mysid Mysidopsis bahia): > 0.841 mg/l  
Exposure time: 28 d  
Test Type: flow-through test

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NOEC (Midge (Chironomus riparius)): 32 mg/l  
End point: mortality  
Exposure time: 28 d  
Test Type: static test  
Method: OECD Test Guideline 211 or Equivalent

LOEC (Midge (Chironomus riparius)): 64 mg/l  
End point: mortality  
Exposure time: 28 d  
Test Type: static test  
Method: OECD Test Guideline 211 or Equivalent

MATC (Maximum Acceptable Toxicant Level) (Midge (Chironomus riparius)): 48 mg/l  
End point: mortality  
Exposure time: 28 d  
Test Type: static test  
Method: OECD Test Guideline 211 or Equivalent

- M-Factor (Chronic aquatic toxicity) : 10
- Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l  
End point: Respiration rates.  
Exposure time: 3 h  
Test Type: Respiration inhibition
- Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg  
Exposure time: 14 d
- Toxicity to terrestrial organisms : Remarks: Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg)., Material is moderately toxic to birds on a dietary basis (LC50 between 501 and 1000 ppm).
- oral LD50 (Colinus virginianus (Bobwhite quail)): > 2000 mg/kg bodyweight.  
Exposure time: 14 d
- LC50 (Colinus virginianus (Bobwhite quail)): > 937 mg/kg diet.  
Exposure time: 8 d
- oral LD50 (Apis mellifera (bees)): > 100 micrograms/bee
- contact LD50 (Apis mellifera (bees)): > 100 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.

### Dithiopyr:

- 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

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- species).
- LC50 (Oncorhynchus mykiss (rainbow trout)): 0.5 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.1 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 0.020 mg/l  
Exposure time: 5 d  
Test Type: Static
- ErC50 (Lemna gibba (gibbous duckweed)): 0.014 mg/l  
Exposure time: 7 d
- NOEC (Lemna gibba (gibbous duckweed)): 0.0024 mg/l  
Exposure time: 7 d
- M-Factor (Acute aquatic toxicity) : 10
- M-Factor (Chronic aquatic toxicity) : 10
- Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg
- 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).
- oral LD50 (Colinus virginianus (Bobwhite quail)): > 2250 mg/kg bodyweight.
- dietary LC50 (Colinus virginianus (Bobwhite quail)): > 5620 mg/kg diet.
- contact LD50 (Apis mellifera (bees)): > 100 µg/bee  
Exposure time: 48 h
- oral LD50 (Apis mellifera (bees)): > 119 µg/bee  
Exposure time: 48 h

### Silica, crystalline (quartz):

- Toxicity to fish : Remarks: Not expected to be acutely toxic to aquatic organisms.

### Ecotoxicology Assessment

- Acute aquatic toxicity : This product has no known ecotoxicological effects.

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### Persistence and degradability

#### Components:

##### **isoxaben (ISO):**

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 rate may increase in soil and/or water with acclimation.

Chemical Oxygen Demand (COD) : 1.77 mg/g

ThOD : 1.98 kg/kg

Stability in water : Test Type: Hydrolysis  
Degradation half life (half-life): > 5 d pH: 7.0

Photodegradation : Test Type: Half-life (direct photolysis)  
Method: Measured

Test Type: Half-life (direct photolysis)

Test Type: Half-life (indirect photolysis)  
Sensitizer: OH radicals  
Concentration: 1,500,000 1/cm<sup>3</sup>  
Rate constant: 2.045E-10 cm<sup>3</sup>/s  
Method: Estimated.

##### **Dithiopyr:**

Biodegradability : Result: Not readily biodegradable.  
Remarks: Biodegradation may occur under aerobic conditions (in the presence of oxygen).

##### **Silica, crystalline (quartz):**

Biodegradability : Remarks: Biodegradation is not applicable.

### Bioaccumulative potential

#### Components:

##### **isoxaben (ISO):**

Partition coefficient: n-octanol/water : log Pow: 2.64  
Method: Measured  
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

##### **Dithiopyr:**

Partition coefficient: n-octanol/water :  
log Pow: 4.75  
Method: Measured

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Remarks: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

### **Silica, crystalline (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:**

#### **isoxaben (ISO):**

Distribution among environmental compartments : Koc: 700 - 1290  
Remarks: Potential for mobility in soil is low (Koc between 500 and 2000).

Stability in soil : Test Type: aerobic degradation  
Dissipation time: 0.358 - 0.883 yr  
Test Type: Photolysis  
Dissipation time: 248 d

#### **Dithiopyr:**

Distribution among environmental compartments : Koc: 20500  
Remarks: Expected to be relatively immobile in soil (Koc > 5000).  
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

### **Silica, crystalline (quartz):**

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

### **Balance:**

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

### **Other adverse effects**

#### **Components:**

#### **isoxaben (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.



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**Dithiopyr:**

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.

**Silica, crystalline (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.

**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.

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## 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.

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## SECTION 14. TRANSPORT INFORMATION

**International Regulations**

**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

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**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

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**SECTION 15. REGULATORY INFORMATION**

**SARA 311/312 Hazards** : Carcinogenicity

**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**

Silica, crystalline (quartz)	14808-60-7
Dipropylene glycol	25265-71-8

**California Prop. 65**

WARNING: This product can expose you to chemicals including Silica, crystalline (quartz), which is/are known to the State of California to cause cancer, and 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).

**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.

No substances are subject to TSCA 12(b) export notification requirements.

**Federal Insecticide, Fungicide and Rodenticide Act**

EPA Registration Number : 62719-742

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 or inhaled  
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)
OSHA CARC	:	OSHA Specifically Regulated Chemicals/Carcinogens
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
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
OSHA CARC / PEL	:	Permissible exposure limit (PEL)
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-3 / TWA	:	8-hour time weighted average

AIRC - 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 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; 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

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Product code: GF-3985

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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