

**PALLADIUM**

Version 0.0      Revision Date: 04/04/2023      SDS Number: S1375741195      This version replaces all previous versions.

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**SECTION 1. IDENTIFICATION**

Product name : PALLADIUM

Design code. : A9219B

Product Registration number : 100-1328

**Manufacturer or supplier's details**

Company name of supplier : Syngenta Crop Protection, LLC

Address : Post Office Box 18300  
Greensboro NC 27419  
United States of America (USA)

Telephone : 1 800 334 9481

Telefax : 1 336 632 2192

E-mail address : sds.requests@syngenta.com

Emergency telephone : 1 800 888 8372

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

Recommended use : Fungicide

Restrictions on use : General Use Pesticide

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**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Combustible dust

Skin sensitization : Category 1

**GHS label elements**

Hazard pictograms :



Signal Word : Warning

Hazard Statements : May form combustible dust concentrations in air.  
H317 May cause an allergic skin reaction.

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Precautionary Statements : **Prevention:**  
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
 P272 Contaminated work clothing must not be allowed out of the workplace.  
 P280 Wear protective gloves.

**Response:**  
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P363 Wash contaminated clothing before reuse.

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

### Other hazards

May form combustible dust concentrations in air.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)
cyprodinil	121552-61-2	37.5
fludioxonil	131341-86-1	25
silica	61790-53-2	>= 10 - < 20
reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda	Not Assigned	>= 1 - < 5

Actual concentration is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

General advice : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.

If inhaled : Take the victim into fresh air.  
 If breathing is irregular or stopped, administer artificial respiration.  
 Keep patient warm and at rest.  
 Call a physician or poison control center immediately.

In case of skin contact : Take off all contaminated clothing immediately.  
 Wash off immediately with plenty of water.  
 If skin irritation persists, call a physician.  
 Wash contaminated clothing before re-use.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
 Remove contact lenses.

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- Immediate medical attention is required.
- If swallowed : If swallowed, seek medical advice immediately and show this container or label.  
Do NOT induce vomiting.
- Most important symptoms and effects, both acute and delayed : Nonspecific  
No symptoms known or expected.
- Notes to physician : There is no specific antidote available.  
Treat symptomatically.

### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Extinguishing media - small fires  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Extinguishing media - large fires  
Alcohol-resistant foam  
or  
Water spray
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting : Fire will spread by burning with a visible flame.  
As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion (see section 10).  
Exposure to decomposition products may be a hazard to health.
- Further information : Do not allow run-off from fire fighting to enter drains or water courses.  
Cool closed containers exposed to fire with water spray.
- Special protective equipment for fire-fighters : Wear full protective clothing and self-contained breathing apparatus.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.  
Avoid dust formation.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).  
Do not create a powder cloud by using a brush or compressed air.

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Clean contaminated surface thoroughly.  
Clean with detergents. Avoid solvents.  
Retain and dispose of contaminated wash water.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling** : This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents. This material can become readily charged in most operations. Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8.
- Conditions for safe storage** : Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.
- Further information on storage stability** : Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
cyprodinil	121552-61-2	TWA	5 mg/m <sup>3</sup>	Syngenta
fludioxonil	131341-86-1	TWA	5 mg/m <sup>3</sup>	Syngenta
		TWA (Inhalable particulate matter)	1 mg/m <sup>3</sup>	ACGIH
silica	61790-53-2	TWA	6 mg/m <sup>3</sup>	OSHA P0
		TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m <sup>3</sup> / %SiO <sub>2</sub> (Silica)	OSHA Z-3
		TWA	6 mg/m <sup>3</sup> (Silica)	NIOSH REL

**Engineering measures** : THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND

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PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.

### Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.  
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hand protection
- Remarks : Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The breakthrough time depends amongst other things from the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Eye protection : No special protective equipment required.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.  
Remove and wash contaminated clothing before re-use.  
Wear as appropriate:  
Dust impervious protective suit
- Protective measures : The use of technical measures should always have priority over the use of personal protective equipment.  
When selecting personal protective equipment, seek appropriate professional advice.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : granules

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Color : gray to brown

Odor : weak

Odor Threshold : No data available

pH : 9.6  
Concentration: 1 %w/v

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : May form combustible dust concentrations in air.

Burning number : 5 (68 °F / 20 °C)  
6 (212 °F / 100 °C)

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

Relative vapor density : No data available

Density : 1 g/cm<sup>3</sup>

Bulk density : 0.537 g/cm<sup>3</sup>

Solubility(ies)  
Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

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Viscosity  
  Viscosity, kinematic      :    No data available

Explosive properties      :    Not explosive

Oxidizing properties      :    The substance or mixture is not classified as oxidizing.

Self-heating substances    :    The substance or mixture is not classified as self heating.

Minimum ignition energy    :    30 - 100 mJ

Particle size                :    No data available

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity                    :    None reasonably foreseeable.

Chemical stability            :    Stable under normal conditions.

Possibility of hazardous reactions    :    No dangerous reaction known under conditions of normal use.

Conditions to avoid         :    No decomposition if used as directed.

Incompatible materials       :    None known.

Hazardous decomposition products    :    No hazardous decomposition products are known.

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**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

Ingestion  
Inhalation  
Skin contact  
Eye contact

**Acute toxicity****Product:**

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

Acute inhalation toxicity    :    LC50 (Rat, male and female): > 2.51 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity         :    LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

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### Components:

#### **cyprodinil:**

- Acute oral toxicity : LD50 (Rat, female): 2,500 mg/kg
- Acute inhalation toxicity : LC50 (Rat, male and female): > 1.2 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

#### **fludioxonil:**

- Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
- Acute inhalation toxicity : LC50 (Rat, male and female): > 2.6 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

#### **reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda :**

- Acute oral toxicity : LD50 (Rat): 1,800 mg/kg
- Acute inhalation toxicity : LC50 (Rat): 4.08 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist
- Acute dermal toxicity : LD50 (Rabbit): 3,000 mg/kg

### **Skin corrosion/irritation**

#### **Product:**

- Species : Rabbit
- Result : No skin irritation

### **Components:**

#### **cyprodinil:**

- Species : Rabbit
- Result : No skin irritation

#### **fludioxonil:**

- Species : Rabbit
- Result : No skin irritation



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

Species : Rabbit  
Result : No eye irritation

**Components:****cyprodinil:**

Species : Rabbit  
Result : No eye irritation

**fludioxonil:**

Species : Rabbit  
Result : No eye irritation

**reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda :**

Species : Rabbit  
Result : Risk of serious damage to eyes.

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

Species : Guinea pig  
Result : May cause sensitization by skin contact.

**Components:****cyprodinil:**

Species : Guinea pig  
Result : The product is a skin sensitizer, sub-category 1B.

**fludioxonil:**

Species : Guinea pig  
Result : Did not cause sensitization on laboratory animals.

**Germ cell mutagenicity****Components:****cyprodinil:**

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

**fludioxonil:**

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

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**reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda :**

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects

**Carcinogenicity****Components:****cyprodinil:**

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

**fludioxonil:**

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

**Reproductive toxicity****Components:****cyprodinil:**

Reproductive toxicity - Assessment : No toxicity to reproduction

**fludioxonil:**

Reproductive toxicity - Assessment : No toxicity to reproduction

**STOT-single exposure****Components:****reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda :**

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

**STOT-repeated exposure****Components:****cyprodinil:**

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

**fludioxonil:**

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

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### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Product:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 3.1 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.14 mg/l  
Exposure time: 48 h
- Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 1.6 mg/l  
Exposure time: 72 h
- NOEC (Desmodesmus subspicatus (green algae)): 0.1 mg/l  
End point: Growth rate  
Exposure time: 72 h
- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.32 mg/l  
Exposure time: 21 d  
Test Type: flow-through test
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.01 mg/l  
Exposure time: 22 d

##### Components:

##### cyprodinil:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2.41 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.033 mg/l  
Exposure time: 48 h
- LC50 (Americamysis): 0.0081 mg/l  
Exposure time: 96 h
- Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 5.2 mg/l  
Exposure time: 72 h
- NOEC (Raphidocelis subcapitata (freshwater green alga)): 0.4 mg/l  
End point: Growth rate  
Exposure time: 72 h
- EC50 (Skeletonema costatum (marine diatom)): 1.78 mg/l  
Exposure time: 72 h
- NOEC (Skeletonema costatum (marine diatom)): 0.541 mg/l  
Exposure time: 72 h
- M-Factor (Acute aquatic tox- : 100

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icity)

Toxicity to fish (Chronic toxicity) : NOEC (Cyprinodon variegatus (sheepshead minnow)): 0.0406 mg/l  
Exposure time: 34 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.0082 mg/l  
Exposure time: 21 d

NOEC (Americamysis): 0.0019 mg/l  
Exposure time: 28 d

M-Factor (Chronic aquatic toxicity) : 10

### fludioxonil:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.23 mg/l  
Exposure time: 96 h

LC50 (Pimephales promelas (fathead minnow)): 0.7 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.4 mg/l  
Exposure time: 48 h

EC50 (Americamysis): 0.27 mg/l  
Exposure time: 96 h

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.259 mg/l  
Exposure time: 96 h

EC10 (Raphidocelis subcapitata (freshwater green alga)): 0.077 mg/l  
End point: Growth rate  
Exposure time: 96 h

ErC50 (Skeletonema costatum (marine diatom)): 0.43 mg/l  
Exposure time: 96 h

NOEC (Skeletonema costatum (marine diatom)): 0.14 mg/l  
End point: Growth rate  
Exposure time: 96 h

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.04 mg/l  
Exposure time: 28 d

EC10 (Pimephales promelas (fathead minnow)): 0.018 mg/l  
Exposure time: 116 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.035 mg/l  
Exposure time: 21 d

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NOEC (Americamysis): 0.018 mg/l  
Exposure time: 28 d

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l  
Exposure time: 3 h

### reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda :

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): > 200 mg/l  
Exposure time: 72 h  
Remarks: Information given is based on data obtained from similar substances.

### Persistence and degradability

#### Components:

##### **cyprodinil:**

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 141 d  
Remarks: Product is not persistent.

##### **fludioxonil:**

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 450 - 700 d  
Remarks: Persistent in water.

##### **silica:**

Biodegradability : Result: Not readily biodegradable.

### reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda :

Biodegradability : Result: Readily biodegradable.  
Remarks: Information given is based on data obtained from similar substances.

### Bioaccumulative potential

#### Components:

##### **cyprodinil:**

Bioaccumulation : Remarks: Does not bioaccumulate.

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Partition coefficient: n-octanol/water : log Pow: 4.0 (77 °F / 25 °C)

### fludioxonil:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: 4.12 (77 °F / 25 °C)

### Mobility in soil

#### Components:

#### cyprodinil:

Distribution among environmental compartments : Remarks: Cyprodinil has low to slight mobility in soil.

Stability in soil : Dissipation time: 49 d  
Percentage dissipation: 50 % (DT50)  
Remarks: Product is not persistent.

#### fludioxonil:

Distribution among environmental compartments : Remarks: immobile

Stability in soil : Dissipation time: 14 d  
Percentage dissipation: 50 % (DT50)  
Remarks: Product is not persistent.

### Other adverse effects

#### Components:

#### cyprodinil:

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).

#### fludioxonil:

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).

#### silica:

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).

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#### Disposal methods

- Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.  
Do not dispose of waste into sewer.  
Where possible recycling is preferred to disposal or incineration.  
If recycling is not practicable, dispose of in compliance with local regulations.
- Contaminated packaging : Empty remaining contents.  
Triple rinse containers.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### UNRTDG

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

##### IATA-DGR

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

##### IMDG-Code

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

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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

Remarks : Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

### 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.

## SECTION 15. REGULATORY INFORMATION

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.

Avoid contact with skin, eyes or clothing.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove and wash contaminated clothing before re-use.

#### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
toluene	108-88-3	100	100 (F005)
benzenesulfonic acid, dodecyl-, sodium salt	25155-30-0	1000	

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
50-00-0	Not Assigned	100	

#### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Combustible dust  
Respiratory or skin sensitization

**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.

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

TSCA : On or in compliance with the active portion of the TSCA



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inventory

### TSCA list

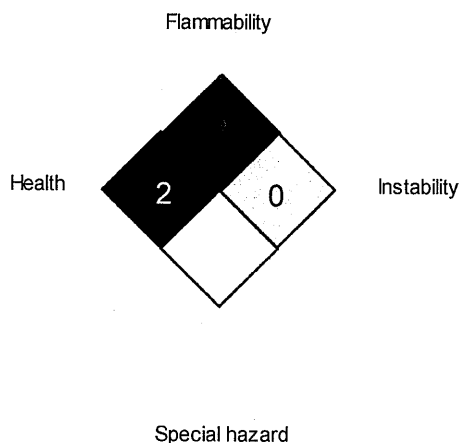
No substances are subject to a Significant New Use Rule.

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

## SECTION 16. OTHER INFORMATION

### Further information

#### NFPA 704:



#### HMIS® IV:

HEALTH	/	2
FLAMMABILITY		2
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

### Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	: USA. NIOSH Recommended Exposure Limits
OSHA P0	: USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-3	: USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA	: 8-hour, time-weighted average
NIOSH REL / TWA	: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	: 8-hour time weighted average
OSHA Z-3 / TWA	: 8-hour time weighted average

AIIIC - 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;

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Version	Revision Date:	SDS Number:	This version replaces all previous versions.
0.0	04/04/2023	S1375741195	

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

Revision Date : 04/04/2023

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