



### Renounce 20 WP Insecticide

#### SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

<b>Product Name</b>	Renounce 20 WP Insecticide
<b>Chemical Name</b>	
<b>Common Name</b>	
<b>MSDS Number</b>	R000045903
<b>Chemical Family</b>	
<b>Chemical Formulation</b>	
<b>EPA Registration No.</b>	264-784
<b>Product Use</b>	For control of certain insects on listed field crops, vegetables, and tree and vine crops.

Bayer CropScience  
 2 T.W. Alexander Drive  
 Research Triangle PK, NC 27709  
 USA

For MEDICAL, TRANSPORTATION or Other EMERGENCY call 1-800-334-7577 24 hours/day  
 For Product Information call 1-866-99BAYER (1-866-992-2937)

#### SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
Cyfluthrin Technical	68359-37-5	19.0000	21.0000
Crystalline Silica (Quartz)	14808-60-7	1.0000	7.0000

#### SECTION 3. HAZARDS IDENTIFICATION

*NOTE: Please refer to Section 11 for detailed toxicological information.*

<b><u>Emergency Overview</u></b>	Caution! Harmful if swallowed, inhaled or absorbed through the skin. Irritating to eyes. Keep out of reach of children and domestic animals. Avoid breathing dust or spray mist.
<b>Physical State</b>	Solid Powder
<b>Odor</b>	Aromatic
<b>Appearance</b>	Tan
<b>Routes of Exposure</b>	Inhalation, Skin Absorption, Eye contact, Skin contact
<b>Immediate Effects</b>	
<b>Eye</b>	Wear protective eyewear. Do not get in eyes. Mild eye irritation

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<b>Skin</b>	Mild skin irritant. May cause a transient, localized paresthesia, characterized by tingling, burning or numbness sensation in some individuals.
<b>Ingestion</b>	Harmful if swallowed.
<b>Inhalation</b>	Irritation of mucous membranes Avoid breathing dust or spray mist. Mist may cause irritation involving the nose, throat and upper respiratory tract during the end use of the product such as during a spray application.
<b>Chronic or Delayed Long-Term</b>	This product is not listed as a carcinogen by ACGIH, NTP, IARC or OSHA. However, it may contain crystalline silica (quartz), a substance which has been listed as a carcinogen by ACGIH, NTP and IARC. Crystalline silica is a naturally-occurring mineral component of many sands and clays. Although the carcinogenic potential of crystalline silica in humans is controversial, it must be considered if it is inhaled under excessive exposure conditions. The respirable portion of the silica that may be contained in this product, however, is small, such that excessive inhalation exposure during anticipated conditions of use is unlikely.
<b>Medical Conditions Aggravated by Exposure</b>	No specific medical conditions are known which may be aggravated by exposure to this product. As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema, or hyperreactive airways disease may be more susceptible to overexposure. Pulmonary and respiratory diseases may be aggravated by exposure to respirable crystalline silica.

### SECTION 4. FIRST AID MEASURES

<b>General</b>	Have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Eye</b>	Hold eye 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 eye.
<b>Skin</b>	Take off all contaminated clothing immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.
<b>Ingestion</b>	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Do not give anything by mouth to an unconscious or convulsing person.
<b>Inhalation</b>	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
<b>Notes to Physician</b>	
<b>Treatment</b>	Treat symptomatically. There is no antidote. Published data indicate Vitamin E acetate can prevent and/or mitigate symptoms of paresthesia (skin irritation) caused by synthetic pyrethroids.

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### SECTION 5. FIRE FIGHTING MEASURES

<b>Flash Point</b>	Not applicable
<b>Autoignition Temperature</b>	Not combustible.
<b>Suitable Extinguishing Media</b>	Water, Dry chemical
<b>Fire Fighting Instructions</b>	Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Stay upwind if possible.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

<b>General and Disposal</b>	Isolate hazard area. Wear appropriate gear for the situation. See Personal Protection information in Section 8. Sweep up and shovel into suitable containers for disposal. Do not allow spilt product to enter soil or waterways. Do not enter confined spaces unless adequately ventilated.  Clean contaminated floors and objects thoroughly with water and detergent, observing environmental regulations. Decontaminate tools and equipment following cleanup.
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### SECTION 7. HANDLING AND STORAGE

<b>Handling Procedures</b>	Wash with soap and water after handling. Avoid breathing dust.
<b>Storing Procedures</b>	Keep away from living quarters. Keep away from open flames, hot surfaces and sources of ignition. Store in an area that is away from food, feedstuffs, fertilizers and seed, away from the home or home garden. Store in an area that is dry and well-ventilated.
<b>Min/Max Storage Temperatures</b>	No lower limit. 60 day average not to exceed 120°F.

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering Controls</b>	Ensure adequate ventilation, especially in confined areas. Provide exhaust ventilation. Control airborne concentrations below the exposure guidelines. When handlers use closed systems, enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.
<b>Eye/Face Protection</b>	Chemical resistant goggles must be worn.
<b>Hand Protection</b>	Suitable chemical resistant gloves
<b>Body Protection</b>	Long-sleeved shirt and long pants. Shoes plus socks.

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**Respiratory Protection** When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or Industry recommendations.

**General Protection** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water.

### Exposure Limits

Crystalline Silica (Quartz)	14808-60-7	NIOSH	REL	0.05 mg/m3
		Form of Exposure	Respirable dust.	
		OSHA Z1A TWA		0.1 mg/m3
		Form of Exposure	Respirable dust.	
		US CA OEL TWA PEL		0.1 mg/m3
		Form of Exposure	Respirable dust.	
		US CA OEL TWA PEL		0.3 mg/m3
		Form of Exposure	Total dust.	
		ACGIH TWA		0.05 mg/m3
		Form of Exposure	Respirable fraction.	
		OSHA Z1 PEL		5 mg/m3
		Form of Exposure	Respirable fraction.	
		OSHA Z1 PEL		15 mg/m3
		Form of Exposure	Total dust.	

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Tan
<b>Physical State</b>	Solid Powder
<b>Odor</b>	Aromatic
<b>pH</b>	9.2 (as aqueous solution)
<b>Vapor Pressure</b>	0.000248 $\mu$ Pa at 20 °C
<b>Bulk Density</b>	20 - 26 lbs / cu-ft
<b>Water Solubility</b>	No data available

## SECTION 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Exposure to extreme heat. Exposure to moisture.
<b>Incompatibility</b>	Methanol Alkali metals Alkaline earth metals Light and/or alkaline metals Bases

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**Hazardous Polymerization (Conditions to Avoid)** Will not occur.

### SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been performed on this product as formulated. The non-acute information pertains to the active ingredient, cyfluthrin.

**Acute Oral Toxicity** Male Rat: LD50: 3,084 mg/kg

Female Rat: LD50: 1,733 mg/kg

**Acute Dermal Toxicity** Male/Female Rabbit: LD50: > 2,000 mg/kg

**Acute Inhalation Toxicity** Male/Female Rat: LC50: 4-hr exposure to dust: > 1.18 mg/l  
Maximum attainable concentration.  
(actual)

Male/Female Rat: 1-hr exposure to dust (extrapolated from 4-hr LC50): > 4.72 mg/l  
(actual)

**Skin Irritation** Rabbit: slight irritation

**Eye Irritation** Rabbit: Mild eye irritation

**Sensitization** Guinea pig: non-sensitizing

**Subchronic Toxicity** In a 3-week dermal toxicity study in rats treated with cyfluthrin, effects observed included clinical signs of toxicity, as well as, topical and microscopic alterations in the treated tissue at the dose site.

In a 13-week inhalation study in rats exposed to cyfluthrin, effects included reduced body weight gains and non-specific behavioral disturbances at the mid- and high concentrations (0.71 and 4.5 mg/cu-m).

**Chronic Toxicity** In chronic dietary studies in rats treated with cyfluthrin, compound-related effects included decreased body weight gains and slight changes in clinical chemistries.

In chronic dietary studies in dogs treated with cyfluthrin, compound-related effects were observed at the higher concentrations (>360 ppm). These effects included an increased incidence of vomiting, decreased body weights, soft feces and clinical neurological symptoms.

#### Assessment Carcinogenicity

In oncogenicity studies in rats and mice, cyfluthrin was not considered carcinogenic in either species.

#### ACGIH

Crystalline Silica (Quartz) 14808-60-7 Group A2

#### NTP

Crystalline Silica (Quartz) 14808-60-7

#### IARC

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**OSHA**  
None

### Reproductive & Developmental Toxicity

**REPRODUCTIVE TOXICOLOGY:** In reproduction studies in rats treated with cyfluthrin, reproductive effects occurred in conjunction with parental toxicity. These effects included reductions in viability, lactation, litter size, feed consumption and body weights. In addition, coarse tremors were observed in offspring at higher concentrations (ca. 125 ppm).

**DEVELOPMENTAL TOXICITY:** In developmental toxicology studies in rats treated with cyfluthrin, there were no embryotoxic or teratogenic effects via the oral route of exposure. When rats were exposed to cyfluthrin via inhalation, embryotoxic effects occurred in conjunction with maternal toxicity. In rabbits treated orally with cyfluthrin, there was an increased incidence of post-implantation losses at maternally toxic dose levels.

### Neurotoxicity

In neurotoxicity studies with cyfluthrin, minimal nerve damage occurred in rats and hens treated by oral gavage. In dermal and inhalation studies, which are more relevant to field exposure, there was no evidence of delayed neurotoxicity in hens treated with cyfluthrin.

In a special investigative inhalation study with cyfluthrin in neonatal mice, effects observed included clinical signs of toxicity, mortality and neurobehavioral effects indicative of treatment-related hyperactivity. There were no correlating morphological changes in neural tissues in mice at 4 months of age.

### Mutagenicity

Numerous in vitro and in vivo mutagenicity studies have been conducted on cyfluthrin, all of which are negative.

## SECTION 12. ECOLOGICAL INFORMATION

### Environmental Precautions

This pesticide is toxic to fish and aquatic organisms. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark outside of a treated rice field. Drift and runoff from treated areas may be hazardous to fish/aquatic organisms in adjacent sites. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product only as specified on the label.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply it or allow it to drift to crops or weeds on which bees are actively foraging.

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### SECTION 13. DISPOSAL CONSIDERATIONS

**General Disposal Guidance** Keep away from food, drink and animal feeding stuffs. Do not re-use empty containers. Pesticide Disposal: Do not contaminate water, food, or feed by disposal. Pesticide, spray mixture or rinse water that cannot be used according to label instructions maybe disposed of at an approved waste facility. Pesticide wastes are acutely toxic hazardous.

Packaging that cannot be cleaned should be disposed of as product waste. Uncontrolled disposal or recycling of this packaging is not permitted and can be dangerous.

**RCRA Classification** Not Regulated under this Statute

### SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:  
Not regulated for Domestic Surface Transportation

### SECTION 15. REGULATORY INFORMATION

**EPA Registration No.** 264-784

#### US Federal Regulations

##### TSCA list

Crystalline Silica (Quartz) 14808-60-7

##### US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None

##### SARA Title III - section 302 - notification and information

None

##### SARA Title III - section 313 - toxic chemical release reporting

Cyfluthrin Technical 68359-37-5 1.0%

#### US States Regulatory Reporting

##### CA Prop65

This product contains a chemical known to the state of California to cause cancer. Crystalline Silica (Quartz) 14808-60-7

This product does not contain any substances known to the State of California to cause reproductive harm.

##### US State right-to-know ingredients

Crystalline Silica (Quartz) 14808-60-7 IL, MA, MN, PA

#### Canadian Regulations

##### Canadian Domestic Substance List

Crystalline Silica (Quartz) 14808-60-7

#### Environmental

##### CERCLA

None

##### Clean Water Section 307 Priority Pollutants

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None  
**Safe Drinking Water Act Maximum Contaminant Levels**  
None

### International Regulations

#### EU Classification

None

#### European Inventory of Existing Commercial Substances (EINECS)

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Crystalline Silica (Quartz)	14808-60-7

## SECTION 16. OTHER INFORMATION

	Health	Flammability	Reactivity	Others
NFPA	2	1	1	None

Reason to Issue: Revise format; update data in Section 15.

Approval Date: 08/31/2004

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