

**DELTADUST® INSECTICIDE**Version 4.0 / USA  
1020000048461/11  
Revision Date: 10/06/2015  
Print Date: 10/07/2015**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****Product identifier****Trade name** DELTADUST® INSECTICIDE**Product code (UVP)** 05952247**SDS Number** 102000004846**EPA Registration No.** 432-772**Relevant identified uses of the substance or mixture and uses advised against****Use** Insecticide**Restrictions on use** See product label for restrictions.**Information on supplier****Supplier** Bayer Environmental Science  
2 T.W. Alexander Drive  
Research Triangle PK, NC 27709  
United States**Responsible Department** Email: SDSINFO.BCS-NA@bayer.com**Emergency telephone no.****Emergency Telephone Number (24hr/ 7 days)** 1-800-334-7577**Product Information Telephone Number** 1-800-331-2867**SECTION 2: HAZARDS IDENTIFICATION****Classification in accordance with regulation HCS 29CFR §1910.1200**

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

**Other hazards**

No other hazards known.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Hazardous Component Name</b>	<b>CAS-No.</b>	<b>Concentration % by weight</b>
Deltamethrin	52918-63-5	0.05
Crystalline quartz (respirable)	14808-60-7	2.50
Calcium carbonate	1317-65-3	95.4



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#### SECTION 4: FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<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 physician or poison control center immediately.
<b>Skin contact</b>	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
<b>Eye contact</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. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

##### Most important symptoms and effects, both acute and delayed

**Symptoms** To date no symptoms are known.

##### Indication of any immediate medical attention and special treatment needed

**Treatment** Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

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#### SECTION 5: FIREFIGHTING MEASURES

##### Extinguishing media

**Suitable** Carbon dioxide (CO<sub>2</sub>), Dry chemical, Foam, Water

**Unsuitable** None known.

##### Advice for firefighters

**Special protective equipment for fire-fighters** Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

**Further information** Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Contain the spread of the fire-fighting media.

**Flash point** not applicable

**Autoignition temperature** no data available



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<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Explosivity</b>	no data available
<b>Dust explosion class</b>	no data available

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Precautions** Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

### Methods and materials for containment and cleaning up

**Methods for cleaning up** Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

**Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

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## SECTION 7: HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

**Hygiene measures** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.  
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

### Conditions for safe storage, including any incompatibilities

**Requirements for storage areas and containers** Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

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Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m <sup>3</sup> (TWA)		OES BCS*
Crystalline quartz (respirable) (Respirable fraction.)	14808-60-7	0.025 mg/m <sup>3</sup> (TWA)	02 2012	ACGIH
Crystalline quartz (respirable) (Respirable dust.)	14808-60-7	0.05 mg/m <sup>3</sup> (REL)	2010	NIOSH
Crystalline quartz (respirable) (Respirable dust.)	14808-60-7	0.1 mg/m <sup>3</sup> (TWA)	1989	OSHA Z1A
Crystalline quartz (respirable) (Respirable dust.)	14808-60-7	0.1 mg/m <sup>3</sup> (TWA)	06 2008	TN OEL
Crystalline quartz (respirable)	14808-60-7	0.27ug/m <sup>3</sup> (AN ESL)	03 2014	TX ESL
Crystalline quartz (respirable)	14808-60-7	14ug/m <sup>3</sup> (ST ESL)	03 2014	TX ESL
Crystalline quartz (respirable) (Respirable dust.)	14808-60-7	0.1 mg/m <sup>3</sup> (TWA PEL)	08 2010	US CA OEL
Crystalline quartz (respirable) (Total dust.)	14808-60-7	0.3 mg/m <sup>3</sup> (TWA PEL)	08 2010	US CA OEL
Crystalline quartz (respirable) (Respirable.)	14808-60-7	0.1 mg/m <sup>3</sup> (TWA)	2000	Z3
Crystalline quartz (respirable) (Total dust.)	14808-60-7	0.3 mg/m <sup>3</sup> (TWA)	2000	Z3
Crystalline quartz (respirable) (Respirable.)	14808-60-7	2.4millions of particles per cubic foot of air (TWA)	2000	Z3
Calcium carbonate (Respirable.)	1317-65-3	5 mg/m <sup>3</sup> (REL)	2010	NIOSH
Calcium carbonate (Total)	1317-65-3	10 mg/m <sup>3</sup> (REL)	2010	NIOSH
Calcium carbonate (Respirable fraction.)	1317-65-3	5 mg/m <sup>3</sup> (PEL)	02 2006	OSHA Z1
Calcium carbonate (Total dust.)	1317-65-3	15 mg/m <sup>3</sup> (PEL)	02 2006	OSHA Z1
Calcium carbonate	1317-65-3	5 mg/m <sup>3</sup>	1989	OSHA Z1A

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(Respirable fraction.)		(TWA)		
Calcium carbonate (Total dust.)	1317-65-3	15 mg/m3 (TWA)	1989	OSHA Z1A
Calcium carbonate (Total dust.)	1317-65-3	15 mg/m3 (TWA)	06 2008	TN OEL
Calcium carbonate (Respirable fraction.)	1317-65-3	5 mg/m3 (TWA)	06 2008	TN OEL
Calcium carbonate	1317-65-3	5ug/m3 (AN ESL)	03 2014	TX ESL
Calcium carbonate	1317-65-3	50ug/m3 (ST ESL)	03 2014	TX ESL

\*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

**Exposure controls****Personal protective equipment**

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

**Respiratory protection**

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

**Hand protection**

Chemical resistant nitrile rubber gloves

**Eye protection**

Safety glasses  
or  
Goggles

**Skin and body protection**

Wear long-sleeved shirt and long pants and shoes plus socks.

**General protective measures**

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.  
Keep and wash PPE separately from other laundry.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	white
<b>Physical State</b>	powder
<b>Odor</b>	weak characteristic
<b>Odour Threshold</b>	no data available
<b>pH</b>	no data available
<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available
<b>Bulk density</b>	ca. 55.5 lb/ft <sup>3</sup> (loose)



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<b>Evaporation rate</b>	not applicable
<b>Boiling Point</b>	not applicable
<b>Melting / Freezing Point</b>	not applicable
<b>Water solubility</b>	soluble
<b>Minimum Ignition Energy</b>	no data available
<b>Decomposition temperature</b>	no data available
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Viscosity</b>	not applicable
<b>Flash point</b>	not applicable
<b>Autoignition temperature</b>	no data available
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Explosivity</b>	no data available
<b>Dust explosion class</b>	no data available

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### SECTION 10: STABILITY AND REACTIVITY

#### Reactivity

<b>Thermal decomposition</b>	no data available
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	No hazardous reactions known.
<b>Conditions to avoid</b>	no data available
<b>Incompatible materials</b>	Strong acids
<b>Hazardous decomposition products</b>	no data available

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### SECTION 11: TOXICOLOGICAL INFORMATION

<b>Exposure routes</b>	Skin contact, Eye contact
<b>Immediate Effects</b>	

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**Acute oral toxicity** LD50 (rat) > 5,050 mg/kg

**Acute inhalation toxicity** LC50 (rat) > 26.1 mg/l  
Exposure time: 4 h  
Determined in the form of dust.

LC50 (rat) > 100 mg/l  
Exposure time: 1 h  
Determined in the form of dust.  
Extrapolated from the 4 hr LC50.

**Acute dermal toxicity** LD50 (rabbit) > 2,020 mg/kg

**Skin irritation** No skin irritation (rabbit)

**Eye irritation** No eye irritation (rabbit)

**Sensitisation** Non-sensitizing. (guinea pig)

**Assessment repeated dose toxicity**

Deltamethrin caused neurobehavioral effects and/or neuropathological changes in animal studies. The toxic effects of Deltamethrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

**Assessment mutagenicity**

Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment carcinogenicity**

Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

**ACGIH**

Crystalline quartz (respirable)	14808-60-7	Group A2
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**NTP**

Crystalline quartz (respirable)	14808-60-7
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**IARC**

Deltamethrin	52918-63-5	Overall evaluation: 3
Crystalline quartz (respirable)	14808-60-7	Overall evaluation: 1

**OSHA**

None.

**Assessment toxicity to reproduction**

Deltamethrin did not cause reproductive toxicity in a two-generation study in rats.

**Assessment developmental toxicity**

Deltamethrin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Deltamethrin are related to maternal toxicity.

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Only acute toxicity studies have been performed on the formulated product.  
The non-acute information pertains to the active ingredient(s).

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**SECTION 12: ECOLOGICAL INFORMATION**

<b>Toxicity to fish</b>	LC50 (Oncorhynchus mykiss (rainbow trout)) 0.00091 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
<b>Toxicity to aquatic invertebrates</b>	EC50 (Daphnia magna (Water flea)) 0.00056 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient deltamethrin.
<b>Toxicity to aquatic plants</b>	EC50 (Algae) > 9.1 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
<b>Biodegradability</b>	Deltamethrin: not rapidly biodegradable
<b>Koc</b>	Deltamethrin: Koc: 10240000
<b>Bioaccumulation</b>	Deltamethrin: Bioconcentration factor (BCF) 1,400 Does not bioaccumulate.
<b>Mobility in soil</b>	Deltamethrin: Immobile in soil
<b>Environmental precautions</b>	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

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**SECTION 13: DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Product</b>	Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Follow advice on product label and/or leaflet.
<b>Contaminated packaging</b>	Triple rinse containers. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.



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Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

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**SECTION 14: TRANSPORT INFORMATION****49CFR** Not dangerous goods / not hazardous material**IMDG**

UN number	<b>3077</b>
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE)

**IATA**

UN number	<b>3077</b>
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE )

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON

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**SECTION 15: REGULATORY INFORMATION****EPA Registration No.** 432-772**US Federal Regulations****TSCA list**

Crystalline quartz (respirable)	14808-60-7
Calcium carbonate	1317-65-3

**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**

None.



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#### US States Regulatory Reporting

##### CA Prop65

This product contains a chemical known to the State of California to cause cancer.  
Crystalline quartz (respirable) 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 quartz (respirable)	14808-60-7	MN
Calcium carbonate	1317-65-3	MN

#### Canadian Regulations

##### Canadian Domestic Substance List

None.

#### Environmental

##### CERCLA

None.

##### Clean Water Section 307 Priority Pollutants

None.

##### Safe Drinking Water Act Maximum Contaminant Levels

None.

#### EPA/FIFRA 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 required on the pesticide label:

**Signal word:** Caution!

**Hazard statements:** May be harmful if absorbed through skin.  
Avoid contact with skin, eyes and clothing.  
Wash thoroughly with soap and water after handling.

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## SECTION 16: OTHER INFORMATION

#### Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
CAS-Nr.	Chemical Abstracts Service number
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	US. IARC Monographs on Occupational Exposures to Chemical Agents
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods

# Bayer Environmental Science

## SAFETY DATA SHEET



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N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

#### **NFPA 704 (National Fire Protection Association):**

Health - 1      Flammability - 0      Instability - 0      Others - none

#### **HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)**

Health - 0      Flammability - 0      Physical Hazard - 0      PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

**Reason for Revision:** The following sections have been revised: Section 15: Regulatory information.

**Revision Date:** 10/06/2015

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