



**PROKOZ® ZENITH® 0.5 G INSECTICIDE**

Version 2 / USA  
102000007119

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Revision Date: 10/16/2013  
Print Date: 10/17/2013

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**Product identifier**

Trade name	PROKOZ® ZENITH® 0.5 G INSECTICIDE
Product code (UVP)	04399447
SDS Number	102000007119
EPA Registration No.	432-1328

**Relevant identified uses of the substance or mixture and uses advised against**

Use	Insecticide
Restrictions on use	See product label for restrictions.

**Information on manufacturer**

Bayer Environmental Science  
2 T.W. Alexander Drive  
Research Triangle PK, NC 27709  
United States

**Emergency telephone no.**

All Emergencies, 24hr/ 7 days 1-800-334-7577 (24 hours/day)

<b>Product Information Telephone No.</b>	1-800-331-2867
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**SDS Information or Request** [SDSINFO.BCS-NA@bayer.com](mailto:SDSINFO.BCS-NA@bayer.com)

**SECTION 2: HAZARDS IDENTIFICATION**

**Classification in accordance with regulation HCS 29CFR §1910.1200**

Eye irritation : Category 2B

**Signal word:** Warning

**Hazard statements**

Causes eye irritation.

**Precautionary statements**

Wash thoroughly after handling.

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

If eye irritation persists: Get medical advice/attention.

**Other hazards**

No other hazards known.



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

Hazardous Component Name	CAS-No.	Average % by Weight
Imidacloprid	138261-41-3	0.50
Crystalline quartz (respirable)	14808-60-7	3.82

**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.

**SECTION 5: FIREFIGHTING MEASURES**

**Extinguishing media**

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

**Unsuitable** None known.



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<b>Special hazards arising from the substance or mixture</b>	Hazardous decomposition products due to incomplete combustion.
<b>Advice for firefighters</b>	
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
<b>Further information</b>	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.
<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 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**



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<b>Advice on safe handling</b>	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.
<b>Hygiene measures</b>	Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Wash thoroughly and put on clean clothing.
<b>Conditions for safe storage, including any incompatibilities</b>	
<b>Requirements for storage areas and containers</b>	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.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Imidacloprid	138261-41-3	0.7 mg/m <sup>3</sup> (TWA)		OES BCS*
Imidacloprid	138261-41-3	5 ug/m <sup>3</sup> (AN ESL)	07 2011	TX ESL
Imidacloprid	138261-41-3	50 ug/m <sup>3</sup> (ST ESL)	07 2011	TX ESL
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) (Particulate.)	14808-60-7	0.27 ug/m <sup>3</sup> (AN ESL)	02 2013	TX ESL
Crystalline quartz (respirable) (Particulate.)	14808-60-7	14 ug/m <sup>3</sup> (ST ESL)	02 2013	TX ESL
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 dust.)	14808-60-7	0.1 mg/m <sup>3</sup> (TWA PEL)	08 2010	US CA OEL
Crystalline quartz (respirable) (Respirable.)	14808-60-7	2.4 millions of particles per cubic foot of air (TWA)	2000	Z3



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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

\*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.

<b>Respiratory protection</b>	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.
<b>Hand protection</b>	Chemical resistant nitrile rubber gloves
<b>Eye protection</b>	Tightly fitting safety goggles
<b>Skin and body protection</b>	Wear long-sleeved shirt and long pants and shoes plus socks.
<b>General protective measures</b>	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.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	grey
<b>Physical State</b>	granular
<b>Odor</b>	none
<b>Odour Threshold</b>	no data available
<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available
<b>Bulk density</b>	58 - 64 lb/ft <sup>3</sup>
<b>Evaporation rate</b>	not applicable
<b>Boiling Point</b>	not applicable



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<b>Melting / Freezing Point</b>	not applicable
<b>Water solubility</b>	insoluble
<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**

<b>Reactivity</b>	
<b>Thermal decomposition</b>	no data available
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No hazardous reactions known.
<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Incompatible materials</b>	no data available
<b>Hazardous decomposition products</b>	Hydrogen chloride (HCl) Hydrogen cyanide (hydrocyanic acid) Carbon dioxide (CO <sub>2</sub> ) Nitrogen oxides (NO <sub>x</sub> )

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**SECTION 11: TOXICOLOGICAL INFORMATION**

**Exposure routes** Eye contact, Skin Absorption, Skin contact, Ingestion

**Immediate Effects**

**Eye** Causes eye irritation.

**Skin** Harmful if absorbed through skin.

**Ingestion** Harmful if swallowed.

**Information on toxicological effects**

**Acute oral toxicity** LD50 (male/female combined rat) > 4,820 mg/kg

**Acute inhalation toxicity** LC50 (male/female combined rat) > 5.09 mg/l  
Exposure time: 4 h  
Determined in the form of dust.  
(actual)

LC50 (male/female combined rat) > 20 mg/l  
Exposure time: 1 h  
Determined in the form of dust.  
Extrapolated from the 4 hr LC50.  
(actual)

**Acute dermal toxicity** LD50 (male/female combined rabbit) > 2,000 mg/kg

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

**Eye irritation** Mild eye irritation. (rabbit)

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

**Assessment repeated dose toxicity**

Imidacloprid did not cause specific target organ toxicity in experimental animal studies.

**Assessment Mutagenicity**

Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

**Assessment Carcinogenicity**

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

**ACGIH**

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

**NTP**

Crystalline quartz (respirable) 14808-60-7

**IARC**

Crystalline quartz (respirable) 14808-60-7 Overall evaluation: 1



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**OSHA**  
None.

**Assessment toxicity to reproduction**

Imidacloprid caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Imidacloprid is related to parental toxicity.

**Assessment developmental toxicity**

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

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**SECTION 12: ECOLOGICAL INFORMATION**

<b>Toxicity to fish</b>	LC50 (Rainbow trout ( <i>Oncorhynchus mykiss</i> )) 211 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient imidacloprid.
<b>Toxicity to aquatic invertebrates</b>	EC50 (Water flea ( <i>Daphnia magna</i> )) 85 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient imidacloprid.  LC50 ( <i>Chironomus riparius</i> (non-biting midge)) 0.0552 mg/l Exposure time: 24 h The value mentioned relates to the active ingredient imidacloprid.
<b>Toxicity to aquatic plants</b>	( <i>Desmodium subspicatus</i> ) > 10 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient imidacloprid.
<b>Toxicity to bacteria</b>	EC50 (Activated sludge) > 10,000 mg/l The value mentioned relates to the active ingredient imidacloprid.
<b>Biodegradability</b>	Imidacloprid: not rapidly biodegradable
<b>Koc</b>	Imidacloprid: Koc:225
<b>Bioaccumulation</b>	Imidacloprid: Does not bioaccumulate.
<b>Mobility in soil</b>	Imidacloprid: Moderately mobile in soils
<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. Do not allow to get into surface water, drains and ground water.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Product** 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.

**Contaminated packaging** Rinsed packaging may be acceptable for landfill, otherwise incineration will be required in accordance with local regulations. If burned, stay out of smoke.

**RCRA Information** 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**

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.

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

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**SECTION 15: REGULATORY INFORMATION**

**EPA Registration No.** 432-1328

**US Federal Regulations**

**TSCA list**

Crystalline quartz (respirable) 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**

None.

**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

# Bayer Environmental Science

## SAFETY DATA SHEET



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#### Canadian Regulations

##### Canadian Domestic Substance List

Crystalline quartz (respirable) 14808-60-7

#### Environmental

##### CERCLA

None.

##### Clean Water Section 307 Priority Pollutants

None.

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

None.

#### International Regulations

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

Crystalline quartz (respirable) 14808-60-7

#### 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:** Harmful if swallowed or absorbed through skin.  
Causes eye irritation.  
Avoid contact with skin, eyes and clothing.  
Wash thoroughly with soap and water after handling.

#### SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

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

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

Health - 1      Flammability - 1      Physical Hazard - 1      PPE -

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

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 10/16/2013

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