

**MONSANTO COMPANY**  
Safety Data Sheet  
Commercial Product

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

**Trade name** Acceleron® DX-309  
Fungicide Seed Treatment

**EPA Registration No.** 264-935-524

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

**Use** Fungicide, Seed treatment

**Restrictions on use** See product label for restrictions.

**Information on manufacturer** MONSANTO COMPANY  
800 N. Lindbergh Blvd.  
St. Louis, MO, 63167  
Telephone: 800-332-3111, Fax: 314-694-5557  
E-mail: safety.datasheet@monsanto.com

**Emergency Telephone  
Number (24hr/ 7 days)**

FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call  
CHEMTREC - Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico,  
Canada, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted).  
FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

**SECTION 2: HAZARDS IDENTIFICATION**

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

Skin irritation : Category 2

Eye irritation : Category 2A



**Signal word:** Warning

**Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

**Precautionary statements**

Wash face, hands and any exposed skin thoroughly after handling.

Wear protective gloves.

Wear eye protection/face protection.

IF ON SKIN: Wash with plenty of water/soap.

Specific treatment (see supplemental first aid instructions on this label).

If skin irritation occurs: Get medical advice/attention.

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**

<b>Hazardous Component Name</b>	<b>CAS-No.</b>	<b>Concentration % by weight</b>
Metalaxyl	57837-19-1	28.35
Kaolin	1332-58-7	2.51
1,2-Propanediol	57-55-6	5.00

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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

<b>Suitable</b>	Foam, Dry chemical, Carbon dioxide (CO <sub>2</sub> )
<b>Unsuitable</b>	None known.

**Special hazards arising from the substance or mixture** Dangerous gases are evolved in the event of a fire.

### Advice for firefighters

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

**Further information** Evacuate personnel to safe areas. Avoid contact with spilled product or contaminated surfaces. 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>	no data available
<b>Autoignition temperature</b>	no data available
<b>Lower explosion limit</b>	no data available
<b>Upper explosion limit</b>	no data available
<b>Explosivity</b>	not applicable

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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. Use personal protective equipment.

### Methods and materials for containment and cleaning up

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations. Decontaminate tools and equipment following cleanup.

**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.

## 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. 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.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Metalaxyl	57837-19-1	50ug/m3 (ST ESL)	07 2011	TX ESL
Metalaxyl	57837-19-1	5ug/m3 (AN ESL)	07 2011	TX ESL
Kaolin (Respirable fraction.)	1332-58-7	2 mg/m3 (TWA)	02 2012	ACGIH
Kaolin (Total)	1332-58-7	10 mg/m3 (REL)	2010	NIOSH
Kaolin (Respirable.)	1332-58-7	5 mg/m3 (REL)	2010	NIOSH
Kaolin (Total dust.)	1332-58-7	15 mg/m3 (PEL)	02 2006	OSHA Z1
Kaolin (Respirable fraction.)	1332-58-7	5 mg/m3 (PEL)	02 2006	OSHA Z1
Kaolin (Respirable fraction.)	1332-58-7	5 mg/m3 (TWA)	1989	OSHA Z1A
Kaolin (Total dust.)	1332-58-7	10 mg/m3 (TWA)	1989	OSHA Z1A
Kaolin (Total dust.)	1332-58-7	10 mg/m3 (TWA)	06 2008	TN OEL

Kaolin (Respirable fraction.)	1332-58-7	5 mg/m3 (TWA)	06 2008	TN OEL
Kaolin (Particulate.)	1332-58-7	2ug/m3 (AN ESL)	02 2013	TX ESL
Kaolin (Particulate.)	1332-58-7	20ug/m3 (ST ESL)	02 2013	TX ESL
Kaolin (Respirable dust.)	1332-58-7	2 mg/m3 (TWA PEL)	08 2010	US CA OEL
1,2-Propanediol (Vapor.)	57-55-6	1000ug/m3 (ST ESL)	02 2013	TX ESL
1,2-Propanediol (Vapor.)	57-55-6	50ppb (AN ESL)	02 2013	TX ESL
1,2-Propanediol (Vapor.)	57-55-6	500ppb (ST ESL)	02 2013	TX ESL
1,2-Propanediol (Vapor.)	57-55-6	100ug/m3 (AN ESL)	02 2013	TX ESL
1,2-Propanediol (Aerosol.)	57-55-6	10 mg/m3 (TWA)	2010	WEEL

**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**

Chemical resistant goggles must be worn.

**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>	light brown
<b>Physical State</b>	Liquid
<b>Odor</b>	musty
<b>Odour Threshold</b>	no data available
<b>pH</b>	5.0 - 8.0 at 100 % (23 °C)

<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available
<b>Density</b>	1.10 g/cm <sup>3</sup> at 20 °C
<b>Evaporation rate</b>	no data available
<b>Boiling Point</b>	no data available
<b>Melting / Freezing Point</b>	no data available
<b>Water solubility</b>	dispersible
<b>Minimum Ignition Energy</b>	not applicable
<b>Decomposition temperature</b>	not applicable
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Viscosity</b>	250 - 600 mPa.s at 25 °C
<b>Flash point</b>	no data available
<b>Autoignition temperature</b>	no data available
<b>Lower explosion limit</b>	no data available
<b>Upper explosion limit</b>	no data available
<b>Explosivity</b>	not applicable

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## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

<b>Thermal decomposition</b>	not applicable
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed instructions.
<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight.
<b>Incompatible materials</b>	Strong acids, Strong bases, Oxidizing agents
<b>Hazardous decomposition products</b>	No decomposition products expected under normal conditions of use.

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## SECTION 11: TOXICOLOGICAL INFORMATION

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

<b>Eye</b>	Moderate eye irritation.
<b>Skin</b>	Causes skin irritation. Harmful if absorbed through skin.
<b>Ingestion</b>	Harmful if swallowed.

**Information on toxicological effects**

<b>Acute oral toxicity</b>	LD50 (rat) > 2,900 mg/kg
<b>Acute inhalation toxicity</b>	LC50 (rat) > 21.94 mg/l Exposure time: 4 h
<b>Acute dermal toxicity</b>	LD50 (rabbit) > 2,000 mg/kg
<b>Skin irritation</b>	Moderate skin irritation. (rabbit)
<b>Eye irritation</b>	Moderate eye irritation. (rabbit)
<b>Sensitisation</b>	no data available

**Assessment repeated dose toxicity**

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

**Assessment Mutagenicity**

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

**Assessment Carcinogenicity**

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

**ACGIH**

Kaolin	1332-58-7	Group A4
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**NTP**

None.

**IARC**

None.

**OSHA**

None.

**Assessment toxicity to reproduction**

Metalaxyl did not cause reproductive toxicity in a multi-generation study in rats.

**Assessment developmental toxicity**

Metalaxyl did not cause developmental toxicity in rats and rabbits.

**Further information**

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>	no data available
<b>Biodegradability</b>	Metalaxyl: ; not rapidly biodegradable
<b>Koc</b>	Metalaxyl: Koc: 163
<b>Bioaccumulation</b>	Metalaxyl: Bioconcentration factor (BCF) < 7; Does not bioaccumulate.
<b>Mobility in soil</b>	Metalaxyl: Moderately mobile in soils
<b>Environmental precautions</b>	Apply this product as specified on the label. 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 apply when weather conditions favor runoff or drift. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

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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.
<b>Contaminated packaging</b>	Follow advice on product label and/or leaflet. Do not re-use empty 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.
<b>RCRA Information</b>	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



#### US Federal Regulations

##### TSCA list

Kaolin 1332-58-7  
1,2-Propanediol 57-55-6

##### 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 does not contain any substances known to the State of California to cause cancer.

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

#### US State Right-To-Know Ingredients

Kaolin	1332-58-7	MN
1,2-Propanediol	57-55-6	MN

#### Canadian Regulations

##### Canadian Domestic Substance List

Kaolin 1332-58-7

#### 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)

Kaolin 1332-58-7

#### 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:** Warning!

**Hazard statements:** Harmful if swallowed or absorbed through skin.  
Causes skin irritation.  
Moderate eye irritation.  
Do not get in eyes, on skin, or on clothing.  
Avoid inhalation of vapour or mist.

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## SECTION 16: OTHER INFORMATION

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

Health - 2      Flammability - 1      Instability - 0      Others - none

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

Health - 1      Flammability - 1      Physical Hazard - 0      PPE -

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

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