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

**Product Identifier**

Product Name: Acceleron IX-409® Insecticide Seed Treatment

Company: MONSANTO COMPANY  
800 N. Lindbergh Blvd., St. Louis, MO, 63167  
Telephone: 800-332-3111, Fax: 314-694-5557  
E-mail: [safety.datasheet@monsanto.com](mailto:safety.datasheet@monsanto.com)

Emergency Numbers: 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).

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**SECTION 2: HAZARDS IDENTIFICATION**

Classification in accordance with regulation HCS 29CFR §1910.1200  
Acute toxicity (Oral, Inhalation): Category 4  
Eye Irritation : Category 2B



Signal word: Warning

**Hazard statements**

Fatal if swallowed or if inhaled.  
Causes eye irritation.

**Precautionary statements**

Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Avoid breathing mist and spray.  
Use only outdoors or in a well-ventilated area.  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
Rinse mouth.

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IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
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.  
Dispose of contents/container in accordance with local regulation.

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	48.70
Glycerine	58-81-5	10.00

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### SECTION 4: FIRST AID MEASURES

#### Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	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.
Skin contact	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.
Eye contact	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.
Ingestion	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** Foam, Carbon dioxide (CO<sub>2</sub>), Dry chemical, Water spray

**Unsuitable** 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** 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.

**Flash point** > 93.4 °C

**Autoignition temperature** no data available

**Lower explosion limit** no data available

**Upper explosion limit** no data available

**Explosivity** 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.

### 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.

**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.

**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 MFR
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
Glycerine (Total dust.)	56-81-5	15 mg/m <sup>3</sup> (PEL)	02 2006	OSHA Z1
Glycerine (Respirable fraction.)	56-81-5	5 mg/m <sup>3</sup> (PEL)	02 2006	OSHA Z1
Glycerine (Respirable fraction.)	56-81-5	5 mg/m <sup>3</sup> (TWA)	1989	OSHA Z1A
Glycerine (Total dust.)	56-81-5	10 mg/m <sup>3</sup> (TWA)	1989	OSHA Z1A
Glycerine (Total dust and mist.)	56-81-5	10 mg/m <sup>3</sup> (TWA)	06 2008	TN OEL
Glycerine (Respirable fraction and dust or fume.)	56-81-5	5 mg/m <sup>3</sup> (TWA)	06 2008	TN OEL
Glycerine (Particulate.)	56-81-5	50 ug/m <sup>3</sup> (ST ESL)	02 2013	TX ESL

Glycerine (Particulate.)	56-81-5	5 ug/m3 (AN ESL)	02 2013	TX ESL
Glycerine (Vapor.)	56-81-5	100 ug/m3 (AN ESL)	02 2013	TX ESL
Glycerine (Vapor.)	56-81-5	1000 ug/m3 (ST ESL)	02 2013	TX ESL

OES MFR: Manufacturer's 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.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	white to light beige
<b>Physical State</b>	suspension
<b>Odor</b>	characteristic
<b>Odour Threshold</b>	no data available
<b>pH</b>	6.5 - 7.5 (100 %) at 20 °C
<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available
<b>Density</b>	1.23 g/cm³ at 20 °C

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Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	dispersible
Solubility in other solvents	no data available
Minimum Ignition Energy	not applicable
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	no data available
Viscosity	550 - 900 mPa.s at 25 °C
Flash point	> 93.4 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable

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#### SECTION 10: STABILITY AND REACTIVITY

##### Reactivity

Thermal decomposition no data available

Chemical stability Stable under recommended storage conditions.

Conditions to avoid Extremes of temperature and direct sunlight.

Incompatible materials no data available

Hazardous decomposition products No decomposition products expected under normal conditions of use.

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**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Exposure routes</b>	Inhalation, Ingestion, Skin Absorption, Eye contact
<b>Immediate Effects</b>	
<b>Eye</b>	May cause mild irritation to eyes.
<b>Skin</b>	Harmful if absorbed through skin. May cause mild irritation to the skin.
<b>Ingestion</b>	Harmful if swallowed.
<b>Inhalation</b>	Harmful if inhaled. Inhalation may cause irritation of nasal passages.
<b>Information on toxicological effects</b>	
<b>Acute oral toxicity</b>	LD50 (male rat) > 300 - < 2,000 mg/kg
<b>Acute inhalation toxicity</b>	LC50 (male rat) 2.5 mg/l Exposure time: 4 h Determined in the form of liquid aerosol.
	LC50 (female rat) > 1.02 - < 2.02 mg/l Exposure time: 4 h Determined in the form of liquid aerosol.
	LC50 (male rat) 10.0 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.
	LC50 (female rat) > 4.1 - < 8.1 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.
<b>Acute dermal toxicity</b>	LD50 (male/female combined rat) > 2,000 mg/kg
<b>Skin irritation</b>	Slight irritation (rabbit)
<b>Eye irritation</b>	Minimally irritating. (rabbit)
<b>Sensitisation</b>	Non-sensitizing. (guinea pig)
<b>Assessment repeated dose toxicity</b>	Imidacloprid did not cause specific target organ toxicity in experimental animal studies.
<b>Assessment Mutagenicity</b>	Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.
<b>Assessment Carcinogenicity</b>	

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

ACGIH  
None.

NTP  
None.

IARC  
None.

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.

**Further Information**

Acute toxicity studies have been bridged from a similar formulation(s).  
The non-acute information pertains to the active ingredient(s).

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**SECTION 12: ECOLOGICAL INFORMATION**

Toxicity to fish	LC50 (Rainbow trout ( <i>Oncorhynchus mykiss</i> )) 211 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient Imidacloprid.
Toxicity to aquatic invertebrates	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.
Toxicity to aquatic plants	EC50 ( <i>Desmodosmus subspicatus</i> ) > 10 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient Imidacloprid.
Biodegradability	Imidacloprid: not rapidly biodegradable
Koc	Imidacloprid; Koc:225



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<b>Bioaccumulation</b>	Imidacloprid: Does not bioaccumulate.
<b>Mobility in soil</b>	Imidacloprid: Moderately mobile in soils
<b>Environmental precautions</b>	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. Do not allow to get into surface water, drains and ground water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.

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### SECTION 13: DISPOSAL CONSIDERATIONS

#### Waste treatment methods

**Product** Open dumping is prohibited.  
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** Do not re-use empty containers.  
Triple rinse containers.  
Puncture container to avoid re-use.  
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.

**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

<b>49CFR</b>	Not dangerous goods / not hazardous material
<b>IMDG</b>	
UN number	3082
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IMIDACLOPRID SOLUTION)
<b>IATA</b>	
UN number	3082

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Class	0
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (IMIDACLOPRID SOLUTION)

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.

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#### SECTION 15: REGULATORY INFORMATION

##### US Federal Regulations

###### TSCA List

Glycerine 56-81-5

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

Glycerine 56-81-5 MN

##### Canadian Regulations

###### Canadian Domestic Substance List

Glycerine 56-81-5

##### 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)

Glycerine 56-81-5

##### EPA/FIFRA Information:

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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, inhaled or absorbed through the skin.

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#### SECTION 16: OTHER INFORMATION

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, MONSANTO Company or any of its subsidiaries makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will MONSANTO Company or any of its subsidiaries be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR TO THE PRODUCT TO WHICH INFORMATION REFERS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Acceleron IX-409®  
Insecticide Seed  
Treatment

MONSANTO Company  
Safety Data Sheet

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