

<p><b>MONSANTO COMPANY</b> Safety Data Sheet Commercial Product</p>
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**SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

**Product Name**                      **Acceleron™ INT-710 Insecticide and Nematicide Seed Treatment**

**EPA Registration No.**            264-1057-524

**Company**

MONSANTO COMPANY, 800 N. Lindbergh Blvd., St. Louis, MO, 63167  
Telephone: 800-332-3111, Fax: 314-694-5557  
E-mail: TS-SAFETYDATASHEET@DOMINO.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).

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

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Imidacloprid	138261-41-3	24.00
Thiodicarb	59669-26-0	24.00
1,2-Propanediol	57-55-6	1.35
Synthetic amorphous silica	112926-00-8	1.00
Glycerine	56-81-5	

**SECTION 3. HAZARDS IDENTIFICATION**

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

**Emergency Overview**            Caution! Harmful if swallowed, inhaled or absorbed through the skin. Moderate eye irritation. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapour or mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Remove and wash contaminated clothing before re-use.

**Physical State**                      liquid

**Appearance**                        beige

**Routes of Exposure**                Inhalation, Ingestion, Eye contact, Skin contact

**Immediate Effects**

**Eye**                                      Moderate eye irritation. Avoid contact with eyes.

<b>Skin</b>	Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Harmful if absorbed through skin. Avoid contact with skin and clothing.
<b>Ingestion</b>	Harmful if swallowed. Do not take internally.
<b>Inhalation</b>	Harmful if inhaled. Avoid inhalation of vapour or mist.
<b>Chronic or Delayed Long-Term</b>	This product contains ingredients that are considered to be probable or suspected human carcinogens (see Section 11 - Chronic). This product or its components may have target organ effects. This product or its components may have long term (chronic) health effects.
<b>Potential Environmental Effect</b>	Highly toxic to birds. Highly toxic to aquatic invertebrates. Toxic to fish. Toxic to mammals.

**SECTION 4. FIRST AID MEASURES**

<b>General</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Eye</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
<b>Skin</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>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.
<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>Notes to Physician Signs and Symptoms</b>	Temporary blurred vision due to contraction of the pupils (miosis) following contact with the eyes. Bradycardia, low blood pressure, salivation, bronchial hypersecretion, vomiting, diarrhea, sweating, muscular fasciculation, spasm, breathing difficulties, respiratory paralysis, somnolence, coma, respiratory failure, hypothermia, convulsions, nausea
<b>Hazards</b>	This product contains a cholinesterase inhibitor carbamate.
<b>Treatment</b>	The product inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system, and the somatic motor nerves. If symptoms of carbamate poisoning are present, the administration of atropine sulfate is indicated.

**ANTIDOTE:** Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. In mild cases, start treatment by giving 1-2 mg of atropine intravenously every 15 minutes until signs of atropinization appear (dry mouth, flushing and dilated pupils if pupils were originally pinpoint). In severe cases 2 to 4 mg should be injected intravenously every 10 minutes until fully atropinized, then intramuscularly every 30 to 60 minutes as needed to maintain the effect for at least 12 hours. Dosages for children should be appropriately reduced.

Do not use oximes such as 2-PAM unless organophosphate intoxication is suspected. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 24-48 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

**SECTION 5. FIRE FIGHTING MEASURES**

<b>Flash point</b>	95 °C / 203 °F
<b>Suitable Extinguishing Media</b>	Water, Foam, Carbon dioxide (CO2), Dry chemical
<b>Fire Fighting Instructions</b>	Keep out of smoke. Fight fire from upwind position. Cool closed containers/ tanks exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.  Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions</b>	Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.
<b>Methods for Cleaning Up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.
<b>Additional Advice</b>	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

**SECTION 7. HANDLING AND STORAGE**

<b>Handling Procedures</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>Storing Procedures</b>	Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original

container and out of the reach of children, preferably in a locked storage area.

**Work/Hygienic Procedures**

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. Before removing gloves clean them with soap and water. Wash thoroughly and put on clean clothing.

Remove contaminated clothing immediately and dispose of safely.

**Min/Max Storage Temperatures**

Do not transport or store below 2 °C / 36 °F  
Do not transport or store above 46 °C / 115 °F

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

**General Protection**

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.

Follow all label instructions. Train employees in safe use of the product.

**Eye/Face Protection**

Safety glasses with side-shields

**Hand Protection**

Chemical resistant nitrile rubber gloves

**Body Protection**

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

**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.

**Exposure Limits**

1,2-Propanediol	57-55-6	WEEL	TWA		10 mg/m3
		Form of exposure		Aerosol.	
Synthetic amorphous silica	112926-00-8	ACGIH	TWA		10 mg/m3
		OSHA Z1A	TWA		6 mg/m3
		NIOSH	REL		6 mg/m3
		OSHA Z1	PEL		5 mg/m3
		Form of exposure		Respirable fraction.	
		OSHA Z1	PEL		15 mg/m3
		Form of exposure		Total dust.	
		Z3	TWA	15 millions of particles per cubic foot of air	
		Form of exposure		Respirable fraction.	
		Z3	TWA	50 millions of particles per cubic foot of air	
		Form of exposure		Total dust.	
		Z3	TWA		5 mg/m3
		Form of exposure		Respirable fraction.	

Z3	TWA	15 mg/m3		
Form of exposure	Total dust.			
US CA OEL	TWA PEL	5 mg/m3		
Form of exposure	Respirable fraction.			
US CA OEL	TWA PEL	10 mg/m3		
Form of exposure	Total dust.			
US CA OEL	TWA PEL	5 mg/m3		
Form of exposure	Respirable fraction.			
US CA OEL	TWA PEL	10 mg/m3		
Form of exposure	Total dust.			
US CA OEL	TWA PEL	5 mg/m3		
Form of exposure	Respirable fraction.			
US CA OEL	TWA PEL	10 mg/m3		
Form of exposure	Total dust.			
Z3	TWA	20 millions of particles per cubic foot of air		
Z3	TWA	0.8 mg/m3		
Remarks	The value is calculated from a specified equation using a value of 100%. Values lower than 100% will give higher exposure limits. See regulation for specific equation.			
Glycerine	56-81-5	ACGIH	TWA	10 mg/m3
		Form of exposure	Mist.	
		OSHA Z1	PEL	5 mg/m3
		Form of exposure	Respirable fraction.	
		OSHA Z1	PEL	15 mg/m3
		Form of exposure	Total dust.	
		OSHA Z1A	TWA	5 mg/m3
		Form of exposure	Respirable fraction.	
		OSHA Z1A	TWA	10 mg/m3
		Form of exposure	Total dust.	
		US CA OEL	TWA PEL	5 mg/m3
		Form of exposure	Respirable fraction.	
		US CA OEL	TWA PEL	10 mg/m3
		Form of exposure	Total dust.	

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	beige
<b>Physical State</b>	liquid
<b>pH</b>	4.9 - 6.1 (100 %)
<b>Density</b>	approx. 1.26 g/cm <sup>3</sup> at 20 °C
<b>Viscosity</b>	450 - 650 mPa.s

**SECTION 10. STABILITY AND REACTIVITY**

**Hazardous Reactions**      Stable under recommended storage conditions.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Only an acute oral toxicity study has been performed on this product as formulated. The dermal LD50 has been conservatively bridged from thiodicarb technical. The remaining acute toxicity data have been bridged from a formulation containing a higher percentage of thiodicarb. The non-acute information pertains to the technical-grade active ingredients, thiodicarb and imidacloprid.

**Acute Oral Toxicity**      female rat: LD50: 1,750 mg/kg

**Acute Dermal Toxicity**      rabbit: LD50: > 2,000 mg/kg

**Acute Inhalation Toxicity**      rat: LC50: 1.51 mg/l  
Exposure time: 4 h  
Determined in the form of liquid aerosol.

rat: LC50: > 2.53 mg/l  
Exposure time: 1 h  
Determined in the form of liquid aerosol.  
Extrapolated from the 4 hr LC50.

**Skin Irritation**      rabbit: Slight irritation.

**Eye Irritation**      rabbit: Mild eye irritation.

**Sensitization**      guinea pig: sensitizing

**Chronic Toxicity**      Imidacloprid caused thyroid and/or liver effects in chronic dietary studies in rats and dogs.

Thiodicarb caused cholinesterase inhibition and/or organ effects (liver, spleen, testes) in chronic studies in mice, rats and dogs.

**Assessment Carcinogenicity**

Imidacloprid was not carcinogenic in studies in rats and mice.

Thiodicarb has been classified by EPA as a Group B2 (probable human carcinogen) based on its oncogenic potential at high dose levels in mice (liver tumors) and rats (benign testicular tumors). At low doses the product would not be expected to cause these tumors in humans.

**ACGIH**

None.

**NTP**

None.

**IARC**

Synthetic amorphous silica

112926-00-8

Overall evaluation: 3

**OSHA**

None.

**Reproductive & Developmental Toxicity**

**REPRODUCTION:**

Imidacloprid was not a reproductive toxicant in a multi-generation study in rats.

Thiodicarb is not a primary reproductive toxicant based on a two-generation study in rats. Reproductive effects (e.g., decreased viability) were considered secondary to maternal toxicity.

**DEVELOPMENTAL TOXICITY:**

Imidacloprid is not considered a primary developmental toxicant in rats and rabbits. Developmental effects were observed at doses that caused maternal toxicity.

Thiodicarb is not teratogenic based on developmental toxicity studies in rats, mice and rabbits. Developmental effects (e.g., delayed ossifications) were observed in rats and were considered secondary to maternal toxicity.

**Neurotoxicity**

Imidacloprid showed slight behavioral and activity changes only at the highest dose tested in neurotoxicity studies in rats. There were no correlating morphological changes observed in the neural tissues.

Thiodicarb caused transient neurobehavioral effects related to cholinergic toxicity in acute and/or subchronic neurotoxicity screening studies in rats. There were no neuropathological changes observed in either study. Thiodicarb did not cause neurotoxic effects in a delayed neurotoxicity study with atropine-pretreated hens.

**Mutagenicity**

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

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

**SECTION 12. ECOLOGICAL INFORMATION**

**Environmental Precautions**

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.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**General Disposal Guidance**

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.

**Container Disposal**

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.

**RCRA Classification**

The RCRA Classifications may be on the individual component(s) and not necessarily on the product as a whole.

59669-26-0 Thiodicarb  
US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261): U410

59669-26-0 Thiodicarb  
US. EPA Resource Conservation and Recovery Act (RCRA) U List of Hazardous Wastes (40 CFR 261.33(f) and 40 CFR 302 [CERCLA]): U410

**SECTION 14. TRANSPORT INFORMATION**

TRANSPORTATION CLASSIFICATION:  
US DOT  
Not Regulated for Domestic Surface Transportation

FREIGHT CLASSIFICATION:  
Insecticide or Fungicides, N.O.I., other than poison

**SECTION 15. REGULATORY INFORMATION**

EPA Registration No. 264-1057-524

**US Federal Regulations**

**TSCA list**

1,2-Propanediol 57-55-6  
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**

Thiodicarb 59669-26-0 1.0%

**US States Regulatory Reporting**

**CA Prop65**

This product contains a chemical known to the State of California to cause cancer.

Thiodicarb 59669-26-0

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

**US State Right-To-Know Ingredients**

Thiodicarb	59669-26-0	CT, NJ
1,2-Propanediol	57-55-6	MN, RI
Synthetic amorphous silica	112926-00-8	CA, IL, MN, RI
Glycerine	56-81-5	IL, MN, RI

**Canadian Regulations**

**Canadian Domestic Substance List**

1,2-Propanediol 57-55-6  
Synthetic amorphous silica 112926-00-8



Glycerine 56-81-5

**Environmental**

**CERCLA**

Thiodicarb 59669-26-0 1 lbs

**Clean Water Section 307 Priority Pollutants**

None.

**Safe Drinking Water Act Maximum Contaminant Levels**

None.

**International Regulations**

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

Thiodicarb 59669-26-0

1,2-Propanediol 57-55-6

Glycerine 56-81-5

**SECTION 16. OTHER INFORMATION**

NFPA 704 (National Fire Protection Association):

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

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

Reason to Revise: New Material Safety Data Sheet.

Revision Date: Not applicable

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Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.