



## MATERIAL SAFETY DATA SHEET

### Turan 10 SL

#### IDENTIFICATION OF THE SUPPLIER:

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#### PRODUCT IDENTIFICATION:

**Common Name:** Dinotefuran  
**Trade Name:** Turan 10 SL  
**Uses category:** Insecticide  
**Type of formulation:** Soluble concentrate (SL)  
**Chemical Name:** (RS)-1-methyl-2-nitro-3-(tetrahydro-3-furylmethyl) guanidine  
**Chemical Formula:** C<sub>7</sub>H<sub>14</sub>N<sub>4</sub>O<sub>3</sub>  
**Molecular Weight:** 202.2

#### PRODUCT COMPOSITION:

<b>Active Ingredient:</b>	<b>% w/v</b>	<b>CAS #</b>
Dinotefuran	10%	[165252-70-0]
<b>Inert ingredient:</b>		
Water	45 %	[7732-18-5]
Methanol	40%	[67-56-1]





## HAZARDS IDENTIFICATION:

### EMERGENCY OVERVIEW:

Clear light yellow liquid with faint odor.  
May cause respiratory tract irritation.  
Toxic to bees.  
May cause adverse effects to the environment.

### POTENTIAL HEALTH EFFECTS:

#### Route(s) of Entry:

Inhalation:

Vapor may be irritating to respiratory tract.

Ingestion:

Low hazard by swallowing.

Skin contact:

Non-irritating to the skin.

Eye contact:

Non-irritating to the eyes.

Carcinogenicity:

NTP:

Not listed.

IARC:

Not listed.

OSHA:

Not regulated.

MEDICAL CONDITIONS

No information found.

AGGRAVATED BY EXPOSURE:

## FIRST-AID MEASURES:

### INHALATION:

If you feel unwell, remove to fresh air immediately. Get medical attention if cough or other symptoms develop.

### EYE CONTACT:

Immediately flush with plenty of water. Check for and remove contact lenses if easily possible. Get medical attention if irritation persists.

### SKIN CONTACT:

Immediately remove contaminated clothing and shoes. Flush skin with large amounts of water, clean off with soap and water. Get medical attention if symptoms develop.

### INGESTION:

Rinse mouth with water and give 1 or 2 glasses of water or milk. Get medical attention immediately. Induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious or convulsing person.





## FIRE-FIGHTING MEASURES: -

Extinguishing media:	Water jet, water fog, foam, dry chemical, CO <sub>2</sub>
Extinguishing media which must not be used:	Not available.
General hazard:	No unusual fire or explosion hazard for normal industrial or commercial handling. Emits toxic fumes in fire condition.
Firefighting instructions:	Keep unnecessary and unprotected personnel away. Shut off supply if possible. Remove containers to safe place if possible. Keep surrounding areas cool by spraying water. Fight fire from an upwind position.
Firefighting equipment:	Respiratory and eye protection required for fire-fighting personnel. Full protective equipment and self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires.
Hazardous combustion products:	Carbon oxides, nitrogen oxides.

## ACCIDENTAL RELEASE MEASURE:

PERSONAL PRECAUTIONS:	Keep unnecessary and unprotected personnel away. Wear appropriate personal protective equipment as specified in Section 8.
ENVIRONMENTAL PRECAUTIONS:	Do not let this chemical enter the environment.
CLEAN-UP METHODS:	Absorb or cover with dry earth, sand or other non-combustible material and transfer to sealable containers. Large spills: Dike far ahead of liquid spill for later disposal.





## HANDLING AND STORAGE:

### HANDLING:

Technical Measures: Use in well-ventilated area.  
Avoid contact with eyes, skin, and clothing. Do not breathe vapor. Wear appropriate personal protective equipment.  
Provide hand and eye wash station near work area. Wash thoroughly after handling.

PRECAUTIONS: Use under local exhaust or general ventilation. Remove contaminated clothing immediately.

STORAGE: Storage Conditions:  
Protect from direct sunlight. Store in cool, dark, and well-ventilated area. Keep container tightly closed.  
Store away from strong oxidizers.

Packaging Material: Polyethylene or polyethylene-lined metal container.

## EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general ventilation. The use of closed system or local exhaust ventilation is recommended. Provide safety shower and eye wash station near work area.

EXPOSURE LIMITS: None is established for this substance.

Personal protective equipment:

Respiratory protection: Vapor respirator, supplied-air purifying respirator, breathing apparatus.

Hand protection: Protective gloves

Eye protection: Safety glasses or goggles.

Protective clothing: Safety helmet, protective clothing, safety boots.





## PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:	Clear light yellow liquid.
ODOR:	Faint odor.
pH:	4.07
MELTING POINT:	Not available.
FLASH POINT:	Not available.
AUTOIGNITION TEMPERATURE:	Not available.
EXPLODABILITY:	Not available.
BULK DENSITY:	1.07 At 20oC.
SOLUBILITY IN WATER:	Not available.
The following information is for the components of this product.	
[Dinotefuran]	
pH:	5.6 (1% in water at 25oC)
BOILING POINT:	Decomposes.
MELTING POINT:	107.5oC
EXOTHERMIC ONSET TEMPERATURE:	217oC
	111.5oC (by ARC test)
AUTOIGNITION TEMPERATURE:	350oC
EXPLODABILITY:	
Minimum Explosive Concentration:	50 mg/L
Minimum Oxygen Concentration:	10 %
VAPOR PRESSURE:	<1.7×10 <sup>-6</sup> Pa at 30°C.
DENSITY:	1.40 g/cm <sup>3</sup> at 20°C.
SOLUBILITY:	40 g/L in water at 20°C.
	57 g/L in methanol at 20°C.
	9.0×10 <sup>-6</sup> g/L in hexane at 20°C.
Octanol/Water partition coefficient:	0.549 At 25°C.

## STABILITY AND REACTIVITY:

STABILITY:	Stable under ordinary conditions of use and storage.
INCOMPATIBILITIES:	Strong oxidizers, heat, sources of ignition.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon oxides, nitrogen oxides in fire.
HAZARDOUS POLYMERIZATION:	Will not occur.





## TOXICOLOGICAL INFORMATION:

### ACUTE TOXICITY:

Oral:	Rat LD50 >5000 mg/kg
Dermal:	Rat LD50 >5050 mg/kg
Inhalation:	Rat LC50 >5.25 mg/L

### LOCAL EFFECTS:

Skin irritation:	Rabbit Non-irritating
Eye irritation:	Rabbit Non-irritating

### SKIN SENSITIZATION:

Guinea pig No skin sensitization  
(Buehler Test)

The following information is for the components of this product.

[Dinotefuran]

### MUTAGENICITY:

Ames test:	Negative
Chromosomal aberration:	Negative
Micronucleus test:	Negative

### CARCINOGENICITY:

Non-carcinogen.

### TERATOGENICITY:

No developmental toxicity.

REPRODUCTIVE TOXICITY : No reproductive effect.

## ECOLOGICAL INFORMATION: -

### ECOTOXICITY:

Carp:	LC50(96hr) >1000 mg/L
Daphnia magna:	EC50(48hr) 1230 mg/L
<i>Selenastrum capricornutum</i> :	EbC50(72hr) 103 mg/L

The following information is for the component of this product.

[Dinotefuran]

### ECOTOXICITY:

Dinotefuran is toxic to silk worm and bees.

### MOBILITY:

Soluble in water.

### PERSISTENCY/DEGRADABILITY:

#### Biodegradation:

Readily biodegradable.

#### Hydrolytic half-life:

1 year or more (at 25°C, pH 4,7,9) [OECD111]

#### Photolytic half-life in water:

3.8 hours (at 25°C, 400 W/m<sup>2</sup>, 300-800 nm)

### BIOACCUMULATION:

Unlikely.



## DISPOSAL CONSIDERATIONS:

WASTE FROM RESIDUES:

Waste must be disposed of in accordance with federal, state, local, and national regulations.

CONTAMINATED PACKAGING:

Empty the container completely before disposal.

