

Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 1/11
(30713467/SDS_CPA_CA/EN)

1. Identification

Product identifier used on the label

Titan Insecticide

Recommended use of the chemical and restriction on use

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Contact address:
BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1
CANADA
Telephone: +1 289 360-1300

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification

PCP # 27449
Synonyms: Clothianidin

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Classification of the product

Acute Tox.	4 (oral)	Acute toxicity
Aquatic Acute	1	Hazardous to the aquatic environment - acute
Aquatic Chronic	1	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:

Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 2/11
(30713467/SDS_CPA_CA/EN)



Signal Word:
Warning

Hazard Statement:

H302 Harmful if swallowed.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P273 Avoid release to the environment.
P270 Do not eat, drink or smoke when using this product.
P264 Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth
P391 Collect spillage.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

Hazards not otherwise classified

Labeling of special preparations (GHS):

May produce an allergic reaction. Contains: 1,2-benzisothiazol-3(2H)-one, mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

According to Controlled Products Regulations (CPR) (SOR/88-66)

Emergency overview

WARNING:

POISON.

Contains 1,2-benzisothiazolin-3-one as a preservative.
Contains 5-chloro-2-methyl-4-isothiazolin-3-one as a preservative.
Contains 2-methyl-4-isothiazolin-3-one as a preservative.

KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed.

May be fatal if swallowed.

May be harmful if absorbed through skin.

Wash thoroughly after handling.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
210880-92-5	48.0 %	Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N"-nitro-, [C(E)]-
56-81-5	8.0 %	glycerol

Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 3/11
(30713467/SDS_CPA_CA/EN)

68131-39-5

2.25 %

Alcohols, C12-15, ethoxylated

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. If not breathing, give artificial respiration.

If on skin:

Wash thoroughly with soap and water

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open. Remove contact lenses, if present.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam, carbon dioxide

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
carbon monoxide, carbon dioxide, nitrogen oxides
The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear self-contained breathing apparatus and chemical-protective clothing.

Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 4/11
(30713467/SDS_CPA_CA/EN)

Further information:

Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Suitable materials for containers: High density polyethylene (HDPE)

Suitable materials for containers: HDPE fluorinated

Further information on storage conditions: Keep away from heat. Protect from direct sunlight. Protect product from freezing temperatures

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

glycerol	OSHA PEL	PEL 15 mg/m3 Total dust ; PEL 5 mg/m3 Respirable fraction ; TWA value 10 mg/m3 Total dust ; TWA value 5 mg/m3 Respirable fraction ;
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Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 5/11
(30713467/SDS_CPA_CA/EN)

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wearing of closed work clothing is recommended. The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid, suspension
Odour:	characteristic
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	white to light beige
pH value:	approx. 5.0 - 7.0 (100 %(m), 23 °C)
Melting point:	The product has not been tested.
Boiling point:	The product has not been tested.
Flash point:	> 100 °C
Flammability:	not applicable
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Autoignition:	Based on the water content the product does not ignite.

Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 6/11
(30713467/SDS_CPA_CA/EN)

Vapour pressure:	The product has not been tested.
Density:	approx. 1.25 g/cm ³ (20 °C)
Vapour density:	not applicable
Partitioning coefficient n-octanol/water (log Pow):	The statements are based on the properties of the individual components.
<i>Information on: CLOTHIANIDIN TECHNICAL</i>	
Partitioning coefficient n-octanol/water (log Pow):	0.7 (25 °C)

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	400 - 650 mPa.s (20 °C)
Solubility in water:	(20 °C) miscible
Evaporation rate:	not applicable
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

See SDS section 7 - Handling and storage.

Incompatible materials

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 7/11
(30713467/SDS_CPA_CA/EN)

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Of moderate toxicity after single ingestion. Virtually nontoxic by inhalation. Of low toxicity after short-term skin contact.

Oral

Type of value: LD50
Species: rat (female)
Value: 2,000 mg/kg

Inhalation

Type of value: LC50
Species: rat (male/female)
Value: > 2.6 mg/l
Exposure time: 4 h
An aerosol was tested.

Type of value: LC50
Species: rat (male/female)
Value: > 10.4 mg/l
Exposure time: 1 h
An aerosol was tested.

Dermal

Type of value: LD50
Species: rat (male/female)
Value: > 4,000 mg/kg

Assessment other acute effects

Assessment of STOT single:
Based on available Data, the classification criteria are not met.

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion

Assessment of irritating effects: Not irritating to the eyes. Not irritating to the skin.

Skin

Species: rabbit
Result: non-irritant

Eye

Species: rabbit
Result: non-irritant

Sensitization

Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

Species: guinea pig
Result: Non-sensitizing.

Aspiration Hazard

Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 8/11
(30713467/SDS_CPA_CA/EN)

No aspiration hazard expected. The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organotoxicity was observed after repeated administration to animals.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: CLOTHIANIDIN TECHNICAL

Assessment of reproduction toxicity: Animal studies gave no indication of a fertility impairing effect at doses which were not toxic to the parental animals.

Teratogenicity

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: CLOTHIANIDIN TECHNICAL

Assessment of teratogenicity: Causes developmental effects in animals at high, maternally toxic doses.

Other Information

Misuse can be harmful to health.

Symptoms of Exposure

Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish

Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 9/11
(30713467/SDS_CPA_CA/EN)

Information on: CLOTHIANIDIN TECHNICAL
LC50 (96 h) > 104.2 mg/l, Oncorhynchus mykiss (OECD Guideline 203, static)
LC50 (96 h) > 117 mg/l, Lepomis macrochirus (EPA 72-1, static)

Aquatic invertebrates

Information on: CLOTHIANIDIN TECHNICAL
EC50 (48 h) 40 mg/l, Daphnia magna (OPP 72-2 (EPA-guideline), static)
EC50 (48 h) 0.029 mg/l, Chironomus riparius (static)

Aquatic plants

Information on: CLOTHIANIDIN TECHNICAL
EC50 (72 h) > 120 mg/l (growth rate), Pseudokirchneriella subcapitata (static)
No observed effect concentration (72 h) 15 mg/l (growth rate), Pseudokirchneriella subcapitata (static)
EC50 (14 d) > 121 mg/l, Lemna gibba (other, semistatic)
No observed effect concentration (14 d) 59 mg/l, Lemna gibba (other, semistatic)

Chronic toxicity to aquatic invertebrates

Information on: CLOTHIANIDIN TECHNICAL
No observed effect concentration (21 d) 0.12 mg/l, Daphnia magna (OECD Guideline 211, semistatic)
EC10 (28 d) 0.00072 mg/l, Chironomus riparius (other, static)

Persistence and degradability

Assessment biodegradation and elimination (H2O)

The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment biodegradation and elimination (H2O)

Information on: CLOTHIANIDIN TECHNICAL

Not readily biodegradable (by OECD criteria).

Bioaccumulative potential

Assessment bioaccumulation potential

The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment bioaccumulation potential

Information on: CLOTHIANIDIN TECHNICAL

Mobility in soil

Assessment transport between environmental compartments

Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 10/11
(30713467/SDS_CPA_CA/EN)

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: CLOTHIANIDIN TECHNICAL

Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:
See product label for disposal and recycling instructions.

Container disposal:
Rinse the container or liner as needed for disposal. Add rinsate to spray tank. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. Consult the product label for additional details.

14. Transport Information

Land transport

TDG

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Hazard class:	9
Packing group:	III
ID number:	UN 3082
Hazard label:	9, EHSM
Marine pollutant:	YES
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains CLOTHIANIDINE SOLUTION)

Air transport

IATA/ICAO

Hazard class:	9
Packing group:	III
ID number:	UN 3082
Hazard label:	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains CLOTHIANIDINE SOLUTION)

Safety Data Sheet

Titan Insecticide

Revision date : 2020/03/10
Version: 1.1

Page: 11/11
(30713467/SDS_CPA_CA/EN)

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection DSL, CA released / exempt

Chemical DSL, CA blocked / not listed

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2020/03/10

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