



MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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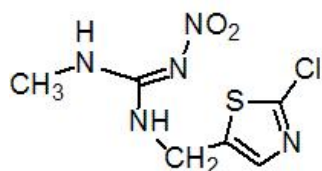
1. Chemical Product Identification

Product Name: Clothianidin 50% WDG

Molecular Formula: C₆H₈ClN₅O₂S

Molecular Weight: 249.7 g/mol

Structural Formula:



Chemical Name: (E)-1-(2-chloro-1,3-thiazol-5-ylmethyl)-3-methyl-2-nitroguanidine

Form: Granule

Color: Off White

CAS No.: 210880-92-5

2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Clothianidin	210880-92-5	50.0
Other ingredients		50.0

3. Hazards Identification

Hazard Classification: Hazardous according to the criteria of the Australian Safety and Compensation Council (ASCC).



Risk Phrases: Xn:

R22 – Harmful if swallowed.

R48/22 – Harmful: Danger of serious damage to health by prolonged exposure if swallowed.

N:

R52/53 – Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R57 – Toxic to bees.

Safety Phrases:

S22 – Do not breathe dust.

S25 – Avoid contact with eyes.

ADG Classification: Not subject to the ADG Code when transported by Road and Rail.

4. First Aid Measures

Skin: take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Get medical attention immediately if irritation persists.

Eyes: 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 poison control center or doctor for treatment advice.

Inhalation: in case of inhalation, remove the victim from contaminated atmosphere without exposing yourself. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention immediately.

Ingestion: call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

5. Fire-Fighting Measures

Flashpoint: NA

Flammable limits: NDA

Auto-ignition temperature: 208°C

Dust Explodability: None

Corrosiveness: None

Oxidising Properties: None



Suitable Extinguishing Media: Small fire: Use dry chemical, carbon dioxide, water spray or foam.

Large fire: Use water spray, fog or foam.

Hazards from Combustion Products: May emit toxic gases under fire conditions. Keep fire exposed containers cool by spraying with water.

Precautions for Fire Fighting and Special Protective Equipment: Ensure respiratory equipment is available. Evacuate immediate area. Advise Fire Brigade of nature of hazard. Wear full protective equipment, including breathing apparatus. Surrounding containers should be cooled using a fine water spray. All run-off must be contained.

Hazchem Code: None.

6. Accidental Release Measures

Small Spills(Dry spill): Reduce airborne dust. Clean up spill immediately. Sweep up material and contain in a refuse vessel for disposal. If necessary, wash the spill area with an alkali detergent and water and absorb and contain for disposal.

Large Spills (Dry Spill): Reduce airborne dust. Place leaking containers into salvage drums. Clean up spill immediately. Form a barricade around spill and in front of drains or waterways in spill vicinity, using soil or other non reactive material. Sweep up material and contain in a refuse vessel for disposal. Contact emergency services as required.

Spills in Water: Stop or reduce contamination of any water. Isolate contaminated water. Remove contaminated water for treatment or disposal.

Disposal: Contaminated material must be disposed of in accordance with all State and/or Local regulations..

7. Handling And Storage

Precautions for Safe Handling: DO NOT USE OR STORE near flame, sparks or hot surfaces. Use only in well ventilated area. Keep container closed. Keep out of reach of children, unauthorised persons and animals. After handling and before eating, drinking or smoking, wash hands, arms and face with soap and water. For personal protection, see Section 8.

Conditions for Safe Storage: Keep out of reach of children, unauthorised persons and animals. Store in the closed, original container in a dry, cool, well ventilated area, away from direct sunlight. Do not store near food, feedstuffs, fertiliser or seed. Store at ambient temperatures.



8. Exposure Controls / Personal Protection

NATIONAL EXPOSURE STANDARDS

Australian Safety and Compensation Council (ASCC) exposure standards have not been assigned for the active ingredient.

ENGINEERING CONTROLS

Use only in well ventilated areas. Do not inhale dust.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use only in well ventilated areas. Respiratory protection is recommended.

Hand Protection: Wear chemical resistant gloves.

Eye Protection: Avoid contact with eyes. Eye contact can be avoided by wearing protective eyewear.

Skin and Body Protection: Avoid contact with skin or clothing. Skin contact should be minimised by wearing protective clothing including gloves, hat, long sleeved shirt, long pants and chemical resistant boots.

Other Information: Wash hands after use. Launder clothes, gloves and face shield or goggles before reuse.

9. Physical And Chemical Properties

Appearance: Off White Granule

pH: 5.0-9.0

Water content: $\leq 0.3\%$

Suspensibility: $\geq 80\%$

Wetting time: $\leq 90s$

10. Stability And Reactivity

Chemical Stability: Stable under recommended storage and handling conditions.

Thermal Stability: No decomposition occurring below 150°C.

Conditions to Avoid: Avoid direct sunlight. Isolate from sources of heat, naked flames or sparks.

Incompatible Materials: NDA

Hazardous Decomposition



Products: May emit toxic fumes under fire conditions (See also Section 5).

Hazardous Reactions: None in normal conditions.

11. Toxicological Information

Acute oral LD₅₀ for rats is >500 a.i.mg/kg.

Acute dermal LD₅₀ for rabbits is >2000 a.i.mg/kg.

Acute inhalation LC₅₀ (4 h) for rat: >5.54 a.i.mg/L.

Skin irritation: Non-irritating to skin (rabbits).

Eye irritation: Slightly irritating to eyes (rabbits).

Skin sensitization: Non-sensitizing (guinea pigs).

12. Ecological And Ecotoxicological Information

Effect on birds: moderate toxicity to birds, acute LD₅₀ for Bobwhites quail is 430 a.i.mg/kg.

Effect on fish: low toxicity to fish, acute 96 hour LC₅₀ for Rainbow trout is >104.2 a.i.mg/L.

Effect on aquatic invertebrates: moderate toxicity to aquatic invertebrates, acute 48 hour EC₅₀ for Daphnia magna is >40 a.i.mg/L.

Effect on algae: low toxicity to algae, acute 72 hour EC₅₀ for Pseudokirchneriella subcapitata is 55 a.i.mg/L.

Effect on honeybees: high toxicity to honeybees, contact acute 48 hour LD₅₀ is 0.044 a.i.µg/bee; Oral acute 48 hour LD₅₀ is 0.004 a.i.µg/bee.

Effect on earthworms: moderate toxicity to earthworms, acute 14 day LC₅₀ for Eisenia foetida is 13.21 a.i.mg/kg.

13. Disposal Considerations

This material must be disposed of as a hazardous waste. Disposal should be in accordance with local, national or state regulations.

Contaminated Packaging:

Rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. DO NOT burn empty containers

14. Transport Information



Not applicable

15. Regulatory Information

Not applicable

16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.