



Safety Data Sheet (GHS)

1. IDENTIFICATION

Product identifier

PRODUCT NAME: Arena® 50 WDG Insecticide

PCPA REGISTRATION NUMBER: 29383
VC NUMBER(S): 1689, 1694
Synonyms: None

PRODUCT DESCRIPTION: Insecticide

Recommended use of the chemical and restrictions on use

Recommended Use: Use in accordance with label directions

Restrictions on use: No information available

Details of the supplier of the safety data sheet

MANUFACTURER/DISTRIBUTOR

VALENT CANADA, INC.
 3-728 Victoria Road South
 Guelph, Ontario N1L 1C6
 (519) 767-9262
 www.valent.ca

EMERGENCY TELEPHONE NUMBERS

HEALTH EMERGENCY OR SPILL (24 hr):
 (800) 682-5368
 TRANSPORTATION (24 hr.): CHEMTREC
 (800) 424-9300 or (202) 483-7616

24 Hour Emergency Phone Number: 800-682-5368

Restrictions on emergency number: None

2. HAZARDS IDENTIFICATION

Classification: Per WHMIS 2015

This product has been classified under the Guidelines of 2015 Health Canada requirements and the implementation of the GHS (Revision 5) under HPR and the HPA.

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2B

Label elements

WARNING

Hazard statements

Causes eye irritation

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**Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Do not get in eyes, on skin, or on clothing

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Skin

IF ON SKIN: Wash with plenty of soap and water

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing
 Call a POISON CENTRE or doctor if you feel unwell

OTHER INFORMATION

Very toxic to aquatic life with long lasting effects.
 Contains the allergen milk.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Substance**

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Clothianidin	210880-92-5	50	-	-
Kaolin clay	1332-58-7	17.8 - 19.7	-	-
Others	Various CAS#s	30.3 - 32.2	-	-

4. FIRST AID MEASURES**General advice**

Have the product container or label with you when calling a poison control centre or doctor, or going for treatment. You may also contact 1-800-682-5386 for emergency medical treatment information.

Inhalation

Move the person to fresh air. If the person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

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Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, and after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.
Skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
Ingestion	Call a physician or poison control centre immediately. Do NOT induce vomiting. Have patient sip a glass of water, if able to swallow. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Carbon dioxide, dry chemical, foam, or water.
Large Fire	Move containers from fire area if you can do it without risk.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	No information available.
Hazardous combustion products:	May emit toxic gases and irritating fumes under fire conditions. Autoignition Temperature: >150 °C (the technical material decomposes at 150 °C) Ignition Temperature: 208 °C.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions Ensure adequate ventilation.

Methods and material for containment and cleaning up

Methods for containment Reduce airborne dust. Avoid runoff into storm sewers or other bodies of water. Keep well ventilated. Wear proper personal protective equipment.

Methods for cleaning up Clean up spill immediately. Vacuum or sweep up material and place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent

and place in a chemical waste container. Prevent wash water from entering surface water or drains. Wear proper personal protective equipment.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Ensure adequate ventilation. Use personal protection equipment. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and shoes immediately. Then wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Do not store or transport near food or feed. Do not use or store in or around the home. Keep pesticide in original container only. Store in a cool, dry secure place. Store in a well ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	Alberta	British Columbia	Ontario	Quebec
Kaolin clay	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 5 mg/m ³

Appropriate engineering controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Do not get this material in your eyes. Eye contact can be avoided by wearing protective eyewear.

Hand protection

Avoid contact with skin or clothing. Skin contact can be minimized by wearing protective clothing including gloves.

Skin and body protection

No special protective equipment required.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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Physical state	Solid
Appearance	granules
Colour	Dark brown
Odour	Glue, faint paint, very mild soap-like
odor threshold:	No information available

<u>PROPERTIES</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.4 @ 26 - 27°C (VC# 1689) 8-9 @ 26 - 27°C (VC# 1694)	None known
Melting point/freezing point	176.8 °C (Technical)	None known
Boiling point/boiling range	No data available	None known
Flash point	No Data Available	None known
Evaporation rate	No Data Available	None known
Flammability (solid, gas)	No Data Available	None known
Flammability Limits in Air		None known
Upper flammability limits	No Data Available	
Lower Flammability Limit:	No Data Available	
Vapour pressure	No Data Available	None known
Vapour density	No Data Available	None known
Relative density	No Data Available	None known
Water solubility	Soluble in water	None known
Solubility in other solvents	No Data Available	None known
Partition coefficient	log Pow = 0.7 (25° C, technical)	None known
Autoignition temperature	No Data Available	None known
Decomposition temperature	No Data Available	None known
Kinematic viscosity	No Data Available	None known
Dynamic viscosity	No Data Available	None known

OTHER INFORMATION

Explosive properties	No information available.
Oxidizing properties	No information available.
Softening point	No information available
Molecular weight	No information available
VOC (EPA METH.24) (G/L):	No information available
Liquid Density	No information available
Bulk density	37.4 lb/cubic foot @ 20° C = 0.599 g/cubic centimeter

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable at 25°C for 4 months (pH 4 - 9). Stable at 40°C for 3 months.
Possibility of Hazardous Reactions	None under normal processing.
Conditions to avoid	High temperatures.
Incompatible materials	None known based on information supplied.
Hazardous Decomposition Products:	May emit toxic gases and irritating fumes under fire conditions.

11. TOXICOLOGICAL INFORMATION**Acute toxicity:**

Oral Toxicity LD ₅₀ (rats)	3,900 mg/kg (male) 4,700 mg/kg (female)	EPA Tox Category	III
Dermal Toxicity LD ₅₀ (rats)	> 5,000 mg/kg	EPA Tox Category	IV
Inhalation Toxicity LC ₅₀ (rats)	> 2.3 mg/L	EPA Tox Category	IV
Eye Irritation (rabbits)	Moderately irritating	EPA Tox Category	III
Skin Irritation (rabbits)	Slightly irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Non-sensitizer	EPA Tox Category	Not applicable

CARCINOGEN CLASSIFICATION

Chemical name	IARC	OSHA - Select Carcinogens	NTP Carcinogen List
Kaolin clay	Not listed	Not listed	Not listed
Others	Not listed	Not listed	Not listed
Clothianidin	Not listed	Not listed	Not listed

TOXICITY OF CLOTHIANIDIN TECHNICAL

Subchronic: The NOEL in a 3-month rat feeding study with Clothianidin Technical was 27.9 mg/kg/day (male) and 34.0 mg/kg/day (female). The NOEL in a 90-day dog feeding study was 19.3 mg/kg/day (male) and 21.2 mg/kg/day (female). In a subchronic dermal study with rats, the NOAEL is >1,000 mg/kg/day.

Chronic/Carcinogenicity: The Clothianidin NOEL for a 2-year rat study was 9.7 mg/kg/day (female); for a 18-month mouse study was 47.2 mg/kg/day (male) and for a 12-month dog study was 7.8 mg/kg/day (male). The principal target organs were the glandular stomach, kidney, ovary, and liver. No oncogenic effects were observed in the 2-year rat or 18-month mouse feeding studies.

Developmental Toxicity: Transient developmental effects (delayed ossification) were observed in rabbits at maternally toxic doses (100 mg/kg/d). The technical material is fetotoxic in animal studies at maternally toxic doses. No teratogenic effects on rats or rabbits were observed.

Reproduction: No reproductive effects were observed in rats at the highest dose tested (2500 ppm).

Mutagenicity: *In vivo* tests have demonstrated that the technical material is not mutagenic. Some *in-vitro* tests were positive for mutagenicity. The observed effects *in-vitro* were due to cytotoxic effects. The weight-of-evidence from the *in vivo* whole animal tests suggest that this product does not present a mutagenic hazard.

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

12. ECOLOGICAL INFORMATION

AVIAN TOXICITY: The following results were obtained from studies with Clothianidin Technical:
 LD₅₀ Japanese quail: 430 mg/kg
 LD₅₀ Northern bobwhite: >2000 mg/kg
 LC₅₀ Northern bobwhite: >5200 ppm
 LC₅₀ Mallard duck: >5200 ppm

AQUATIC ORGANISM TOXICITY: This product is toxic to aquatic invertebrates. The following are results from testing of Clothianidin Technical:
 Bluegill 96-hr LC₅₀: >120 mg/L
 Rainbow trout 96-hr LC₅₀: >100 mg/L

Sheepshead minnow 96-hr LC₅₀: >100 mg/L
 Water flea 48-hr EC₅₀: 40 mg/L
 Mysid 96-hr LC₅₀: 0.053 mg/L
 Algae 72-hr ErC₅₀: >120 mg/L
 Partition coefficient: log P_{ow}: 0.7 @ 25 C; Degradation in soil: DT₅₀: >140 days

OTHER NON-TARGET ORGANISM TOXICITY:

The following information is based on Clothianidin Technical: The following information is based on Clothianidin Technical:
 LD₅₀ 48-hr oral Honeybee: 0.0038 ug (microgram)/bee
 LD₅₀ 48-hr contact Honeybee: 0.044 ug (microgram)/bee
 LC₅₀ 7-day Earthworm: 19 mg/kg dry soil

OTHER ENVIRONMENTAL INFORMATION:

Apply this product only as specified on the label. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product allowing it to drift to blooming crops or weeds if bees are visiting the treatment area.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Canadian formulators using this product should dispose of unwanted active ingredient and containers in accordance with municipal or provincial regulations. For information on disposal or unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

Contaminated packaging Do not reuse empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORTATION INFORMATION

DOT (ground) shipping name: Not Regulated for domestic ground transport by US DOT or Canada TDG

Emergency Response Guidebook No.: Not applicable

ICAO/IATA proper shipping name: UN 3077 Environmentally Hazardous Substance, Solid, N.O.S. (Clothianidin), 9, III, Marine Pollutant

Remarks: Single or inner packaging less than 5 L (liquid) or 5 Kg net (solids) excepted from Dangerous Goods regulations -- see IATA Special Provision A197.

IMDG proper shipping name: UN 3077 Environmentally Hazardous Substance, Solid, N.O.S. (Clothianidin), 9, III, Marine Pollutant

Remarks: Single or inner packaging less than 5 L (liquid) or 5 Kg net (solids) excepted from Dangerous Goods regulations – see IMDG 2.10.2.7
 For US shipping, Emergency Response Guidebook No. 171

EMS No.: F-A, S-F

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

PMRA LABEL INFORMATION THAT DIFFERS FROM WHMIS-GHS REQUIREMENTS:

Pesticide products in Canada are registered by PMRA and are subject to certain labeling requirements under federal pesticide law. These requirements may differ from the classification criteria and hazard information required under WHMIS GHS for the data sheets and for workplace labels of non-pesticide chemicals. The following hazard information as required on the product label:

PMRA SIGNAL WORD: • Caution

PMRA pesticide label hazard information

Causes eye irritation
Keep out of reach of children
Read the label before using

Chemical name	Canada - WHMIS - Ingredient Disclosure List
Clothianidin	Non-controlled
Kaolin clay	Non-controlled
Others	Non-controlled

Chemical name	Canada DSL Inventory List -	Canada NDSL Inventory List -	EINECS Inventory List -
Clothianidin	Not Listed	Not listed	Not Listed
Kaolin clay	Present	Not Listed	Present

For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

PESTICIDE REGULATIONS: All pesticides are governed under PCPA (Pest Control Products Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

PROVINCIAL REGULATIONS: This product did not trigger any provincial regulations.

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

16. OTHER INFORMATION

REASON FOR ISSUE: Updated information to meet WHMIS 2015 (GHS) regulations.
SDS NO.: CAN-0277
PCPA REGISTRATION NUMBER: 29383
REVISION NUMBER: 1
REVISION DATE: 01/30/2019
SUPERCEDES DATE: January 11, 2013
RESPONSIBLE PERSON(S): Valent U.S.A. LLC, Corporate EH&S, (925) 256-2803

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent Canada, Inc. and its

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The Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE PMRA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use.

The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the PMRA under the authority of the *Pest Control Products Act* through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use a PMRA-registered pesticide product in any manner inconsistent with its labeling.

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