

Safety Data Sheet

AgLogic™ 15G Aldicarb Pesticide

1. PRODUCT AND COMPANY IDENTIFICATION

Product Names

AgLogic 15G Aldicarb Pesticide

EPA Reg. No.

87895-1

Product Use

Insecticide, miticide, nematocide

Common Name

Aldicarb

Chemical Name

2-methyl-2-(methylthio) propionaldehyde O-(methylcarbamoyl) oxime

Synonyms

O-(Methylcarbamoyl)-2-methyl-2-(methylthio)propionaldehyde-oxime

Company

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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: 1-703-527-3887 (collect calls accepted).

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards: Highly toxic by inhalation. Highly toxic by ingestion. Harmful by skin and eye absorption.

Target Organs: Cardiovascular system. Central nervous system, Blood, Heart, Eyes.

GHS Label Elements Including Hazard and Precautionary Statements

Signal Word

DANGER

Hazard Pictograms



Hazard Statements

H300 Fatal if swallowed.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

Precautionary Statements

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301 & 310 IF SWALLOWED, immediately call a poison control center or doctor/physician for treatment advice.

HMIS Classification

Health Hazard: 4

Flammability: 1

Physical hazards: 1

NFPA Rating

Health Hazard: 4

Flammability: 1

Reactivity Hazard: 1

Potential Health Effects

Likely routes of exposure

Ingestion, inhalation, skin contact, eye contact

Ingestion

Fatal if swallowed. This product causes reversible cholinesterase inhibition. Repeated overexposure may cause more severe cholinesterase inhibition with more pronounced symptoms. May lead to rapid onset of nausea, vomiting, diarrhea, abdominal pain, pinpoint pupils, blurred vision, profuse sweating, temporary paralysis, respiratory depression and convulsions. Do not take internally.

Inhalation

May be fatal or harmful if inhaled. May produce symptoms similar to those from ingestion. Do not breathe dust.

Skin Contact

May be harmful or fatal if absorbed through the skin. May produce symptoms similar to those from ingestion. Do not get on skin or clothing.

Eye Contact

May be harmful or fatal if absorbed through eyes. May produce symptoms similar to those from ingestion. May cause redness, irritation, and tearing. Do not get in eyes.

Signs and Symptoms of Overexposure

Signs and symptoms of overexposure may include excessive salivation, muscle tremor, nausea, watery eyes, difficult breathing, vomiting, pinpoint eye pupils, excessive sweating, diarrhea, blurred vision, abdominal cramps, weakness, and headache. In severe cases, convulsions, unconsciousness, and respiratory failure may occur.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredient: Aldicarb, 2-methyl-2-(methylthio) propionaldehyde O-(methylcarbamoyl) oxime

Formula: $C_7H_{14}N_2O_2S$

Molecular Weight: 190.26 g/mol

Composition:

COMPONENT	CAS No.	% by weight
Aldicarb	116-06-3	15.0
Dichloromethane	75-09-2	0.5
Acetic acid ethenyl ester, polymer with chloroethane	9003-22-9	1.5
Inert ingredients	--	83.0

4. FIRST AID MEASURES

General Advice

When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment. Move out of dangerous area. Do not leave victim unattended.

If in Eye

Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

If on Skin or Clothing

Take off contaminated clothing and shoes immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed

Immediately call a poison control center or doctor for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Have person sip a glass of water if able to swallow. Never give anything by mouth to an unconscious person.

If Inhaled

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

Signs and Symptoms of Overexposure

Signs and symptoms of overexposure may include excessive salivation, muscle tremor, nausea, watery eyes, difficult breathing, vomiting, pinpoint eye pupils, excessive sweating, diarrhea, blurred vision, abdominal cramps, weakness, and headache. In severe cases, convulsions, unconsciousness, and respiratory failure may occur.

Antidote Statement

Atropine sulfate is highly effective as an antidote.

Note to Physician

Aldicarb is an N-methyl carbamate insecticide which is a cholinesterase inhibitor. Overexposure to this substance may cause toxic signs and symptoms due to the cholinergic nervous system. These effects of overexposure are spontaneously and rapidly reversible. Gastric lavage may be used if this product has been swallowed. Poisoning may occur rapidly after ingestion and prompt removal of stomach contents is indicated.

Specific treatment consists of the administration of parenteral atropine sulfate. Caution should be exercised to prevent over atropinization. Mild cases may be given 1 to 2 mg intramuscularly every 10 minutes until full atropinization has been achieved and repeated thereafter whenever symptoms reappear. Severe cases should be given 2 to 4 mg intravenously every 10 minutes until the patient is 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. Complete recovery from overexposure is to be expected within 24 hours.

Narcotics and other sedatives should not be used. Further, drugs such as (pyridine-2-aldoxime methiodide) are NOT recommended unless organophosphate intoxication is also suggested. Consultation on therapy can be obtained at all hours by calling CHEMTREC: 1-800-424-9300.

To aid in confirmation of a diagnosis, urine samples must be obtained within 24 hours of exposure and immediately frozen. Analyses will be arranged by Ag Logic Chemical, LLC.

5. FIRE FIGHTING MEASURES

Flash Point

Not applicable.

Explosion Hazards

Not explosive.

Suitable extinguishing media

Small Fires: carbon dioxide (CO₂), foam, dry chemical.

Large Fires: Polymer foam, ordinary foam, alcohol foam, water fog. Do not use water unless necessary as water may spread contamination.

Special Protective Equipment for Fire-Fighters

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Equipment and clothing should be thoroughly decontaminated after use.

Fire Fighting Instructions

Stay out of smoke. Minimize use of water to prevent contamination of surrounding areas and the environment. Keep unnecessary people away, isolate hazard area and deny entry. Evacuate residents who are downwind of fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Do not scatter the material. Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

Hazardous Products from Combustion

Hazardous products from combustion may include aldicarb, aldicarb sulfoxide, aldicarb sulfone, aldicarb nitrile, aldicarb oxime, monomethylamine, carbon oxides, nitrogen oxides (NO_x), and sulphur oxides.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Wear respiratory protection. Avoid dust formation. Do not breathe dust. Ensure adequate ventilation. Evacuate personnel to safe areas. Exclude all except properly equipped emergency personnel.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Minimize use of water to prevent environmental contamination.

Methods for Cleaning Up

If spilled on the ground or in a storage area, the affected area should be scraped or swept clean and all material should be placed in an appropriate closed container for disposal. Avoid creating dust. Decontaminate tools and equipment following cleanup.

Do not flush to drain. Prevent material from entering public sewer system or any waterway. Spills may be reportable to the National Response Center (800424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE**Handling Procedures**

Do not get in eyes, on skin or on clothing. Do not breathe dust. Do not ingest. Dry powders can build static electricity charges when subjected to the friction of conveying, mixing or sliding. Take measures to prevent the build-up of electrostatic charge.

Storage Procedures

Store in original container only and out of the reach of children and animals. Keep container tightly closed and store in a cool, well-ventilated, secure place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Keep container dry. Keep container off wet floors. Do not store in or around the home or garden.

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. Before removing gloves clean them with soap and water. Remove contaminated clothing immediately and wash thoroughly before reuse. Wear clean clothing daily.

Storage Temperatures

The recommended maximum transport/storage temperature is 46°C (115°F). The 30-day storage temperature average must not exceed the recommended maximum.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component with Workplace Control Parameters

Component	CAS No.	Value	Control Parameters	Basis
Aldicarb	116-06-3	TWA	0.07 mg/m ³	WEEL (Workplace Environmental Exposure Levels)
Dichloromethane	75-09-2	TWA	50 ppm	ACGIH (American Conference of Governmental Industrial Hygienists)
		TWA	25 ppm	OSHA (Occupational Safety & Health Administration)

Engineering Controls

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, traditional exposure control techniques may be used to effectively minimize employee exposures. Have eye wash facilities immediately available at locations where eye contact can occur. Provide adequate ventilation and appropriate exhaust ventilation at places where dust is formed.

Eye/Face Protection

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. Face contact should be prevented through use of a face shield. An emergency eye wash must be readily accessible to the work area.

Hand Protection

Handle with chemical resistant gloves made of any waterproof material.

Skin and Body Protection

Skin contact should be prevented through use of suitable protective clothing, gloves and footwear, selected with regard of use conditions and exposure potential. Handlers should wear coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, and chemical-resistant footwear plus socks. In addition, handlers should wear a chemical-resistant apron during loading, equipment cleaning or repair, or spill clean up.

Respiratory Protection

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Under normal conditions, in the absence of other airborne contaminants, the following should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): dust/mist filtering respirator.

Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a self-contained breathing apparatus unit

General Protection

Avoid contact with skin, eyes and clothing. Do not breathe dust. Wash hands immediately and thoroughly after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Wear clean clothing daily. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

These data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Color/color range	Dark brown to black
Physical state	Solid granules
Odor	Slightly sulfurous
pH	6.0 to 6.5 at 1% in water @ 21°C
Melting point	Not Applicable
Boiling point	Not Applicable
Flash point	Not Applicable
Explosive properties	Not Applicable
Density (Tap)	0.727 g/cm ³
Water solubility	Slightly soluble

Other Information

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

10. STABILITY AND REACTIVITY

Chemical Stability/Storage Stability

This material is stable under normal handling and storage conditions described in Section 7.

Conditions to Avoid

Dusting conditions, extreme heat and open flame.

Incompatibility

Strong bases.

Hazardous Decomposition Products

Hazardous products from combustion may include aldicarb, aldicarb sulfoxide, aldicarb sulfone, aldicarb nitrile, aldicarb oxime, monomethylamine, carbon oxides, nitrogen oxides (NOx), and sulphur oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Oral LD50 rat: 29.6 mg/kg

Dermal LD50 rat: 149.9 mg/kg

Dermal LD50 rabbit: >2,000 mg/kg

Inhalation LC50: No data available.

Skin irritation: No data available. Aldicarb is highly toxic and is rapidly absorbed through the skin.

Eye irritation: No data available. Aldicarb is highly toxic and is rapidly absorbed through the eyes.

Skin sensitization: No data available.

Carcinogenicity

Aldicarb was not carcinogenic in lifetime feeding studies in rats and mice.

IARC: Aldicarb, Group 3, not classified as carcinogenicity to humans. Dichloromethane, Group 2B.

ACGIH: Aldicarb not classified as carcinogenicity to humans. Dichloromethane, Group A3.

NTP: No component of this product identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product identified as a known or anticipated carcinogen by OSHA.

Neurotoxicity

Aldicarb caused transient neurobehavioral effects related to cholinergic toxicity in acute, subchronic and developmental neurotoxicity screening studies in rats. There were no neuropathological changes observed in these studies. Aldicarb did not demonstrate delayed neurotoxicity in hens.

Mutagenicity

Aldicarb was not mutagenic or genotoxic based on a battery of *in vitro* and *in vivo* tests.

Chronic toxicity

Dichloromethane has been shown to increase the rate of spontaneously occurring malignant tumors in a particular strain of mice and benign tumors in laboratory rats. In other animal toxicology studies and in human epidemiologic studies, dichloromethane failed to show a tumorigenic response.

Potential Health Effects

Inhalation

May be fatal or harmful if dust inhaled. May cause respiratory tract irritation. Do not breathe dust.

Skin Contact

May be fatal or harmful if absorbed through skin. May cause skin irritation. Do not get on skin or on clothing.

Eye Contact

May be fatal or harmful by eye contact. May cause eye irritation. Do not get in eyes.

Ingestion

May be fatal or harmful if swallowed.

Signs and Symptoms of Overexposure

Signs and symptoms of overexposure may include excessive salivation, muscle tremor, nausea, watery eyes, difficult breathing, vomiting, pinpoint eye pupils, excessive sweating, diarrhea, blurred vision, abdominal cramps, weakness, and headache. In severe cases, convulsions, unconsciousness, and respiratory failure may occur.

12. ECOLOGICAL INFORMATION

The toxicity data cited below are based on the technical grade active ingredient (aldicarb).

Aquatic toxicity, fish

Rainbow trout (*Oncorhynchus mykiss*): Acute toxicity, 96 hours, LC50 560-880 µg /L (ppb).

Bluegill sunfish (*Lepomis macrochirus*): Acute toxicity, 96 hours, LC50 50-100 µg /L (ppb).

Aquatic toxicity, invertebrates

Water flea (*Daphnia magna*): Acute toxicity, 48 hours, EC50 75 µg /L (ppb).

Avian toxicity

Bobwhite quail (*Colinus virginianus*): Acute oral toxicity, single dose LD50 2.0 mg/kg body weight.

Mallard duck (*Anas platyrhynchos*): Acute oral toxicity, single dose LD50 3.4 mg/kg body weight.

Environmental Hazards

This pesticide is extremely toxic to birds and other wildlife. Birds feeding on exposed granules may be killed. Cover or immediately soil incorporate granules spilled during loading, at row ends, or elsewhere to ensure the granules are completely covered with soil. This pesticide is toxic to fish and aquatic invertebrates. Run-off from treated areas may be hazardous to fish in neighboring areas. 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 water when disposing of equipment washwaters.

Aldicarb is known to leach through soil into ground water under certain conditions. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination. Apply this product only as specified on this label. Read the use directions and the appended Environmental Precautions and Soil Type Restrictions Tables prior to making applications.

13. DISPOSAL CONSIDERATIONS

Product

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency or the hazardous waste representative at the nearest EPA regional office for guidance.

Container

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If container is burned, stay away from and do not breathe or contact smoke.

14. TRANSPORT INFORMATION

DOT (US)

UN Number: 2757
Hazchem Class: 6.1
Packing group: II
Proper shipping name: Carbamate pesticides, solid, toxic (Aldicarb)
Marine pollutant: Yes
Poison Inhalation Hazard: No

IMDG

UN Number: 2757
Hazchem Class: 6.1
Packing group: II
EMS No: F-A, S-A
Proper shipping name: Carbamate pesticides, solid, toxic (Aldicarb)
Marine pollutant; Yes

IATA

UN Number: 2757
Hazchem Class: 6.1
Packing group: II
Proper shipping name: Carbamate pesticides, solid, toxic (Aldicarb)

15. REGULATORY INFORMATION

OSHA Hazards

Target Organ Effect. Highly toxic by inhalation. Highly toxic by ingestion. Highly toxic by skin or eye absorption.

Canadian NDSL Status

Aldicarb, CAS No. 116-06-3.

SARA Title III Rules

Section 311/312 Hazard Categories: Acute health hazard.
Section 302 Extremely Hazardous Substances: Aldicarb, CAS No. 116-06-3.
Section 313 Toxic Chemical(s): Aldicarb, CAS No. 116-06-3.

California Prop 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Federal Fungicide, Insecticide, Rodenticide Act (FIFRA)

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

DANGER
FATAL IF SWALLOWED

Acute oral toxicity: FIFRA category I.
Acute dermal toxicity: FIFRA category I.
Acute inhalation toxicity: FIFRA category II.
Skin irritation: FIFRA category III.
Eye irritation: FIFRA category III.
Skin sensitization: No skin sensitization

Causes cholinesterase inhibition. May be fatal or harmful by skin or eye contact or by breathing dust. Rapidly absorbed through skin or eyes. Do not get in eyes, on skin or on clothing. Do not breathe dust. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

16. OTHER INFORMATION

The information presented here is not necessarily exhaustive but is representative of relevant, reliable data and is provided in good faith but without express or implied warranty. Buyer assumes all responsibility for safety and use not in accordance with label instructions. For additional information refer to the product label. Please consult AgLogic Chemical, LLC if further information is needed. Follow all local, regional, national, and international regulations.

	Health	Flammability	Instability	Additional Markings
NFPA	4	1	1	
0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard				

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (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, while the labeling provides that information specifically for product use in the ordinary course. In the USA, 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.

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