



TEMIK(R) BRAND 15G LOCK AND LOAD ALDICARB PESTICIDE (CALIFORNIA)
MATERIAL SAFETY DATA SHEET Date Prepared: 08/28/00 Supersedes Date: 12/18/95

1. CHEMICAL PRODUCT AND COMPANY DESCRIPTION

AVENTIS CROP SCIENCE USA LP
2 T.W. Alexander Drive
Research Triangle Pk NC 27709

Emergency Phone Numbers:

Medical/Transport:

DART (800)334-7577 24 Hours/Day
CHEMTREC (800)424-9300 24 Hours/Day

For Product Information:

(888) AVENTIS 24 Hours/Day

Product Status:

FIFRA regulated use only.

EPA FIFRA Registration Number:

264-426

Chemical Name or Synonym:

ALDICARB

Molecular Formula:

C7H14N2O2S

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Reg Number	OSHA Hazard	Percentage
ALDICARB	116-06-3	Y	15
GYPSUM	13397-24-5	Y	0.3
DICHLOROMETHANE	75-09-2	Y	BALANCE
OTHER INGREDIENTS (TRADE SECRET)	*****	N	

3. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW:

Physical Appearance and Odor:

dark brown to black granules solid, sulfur-like odor.

Warning Statements:

DANGER! POISON. FATAL IF SWALLOWED. MAY BE FATAL OR HARMFUL BY SKIN OR EYE CONTACT OR BY BREATHING DUST. RAPIDLY ABSORBED THROUGH THE SKIN OR EYES.

B. POTENTIAL HEALTH EFFECTS:

Acute Eye:

May cause redness, irritation, tearing, May be absorbed through the eye and produce symptoms similar to those from ingestion.

Acute Skin:

May be fatal or harmful if absorbed through the skin. May produce symptoms similar to those from ingestion.

Acute Inhalation:

May be fatal or harmful if inhaled. May produce symptoms similar to those from ingestion.

Acute Ingestion:

Fatal if swallowed. This product causes reversible cholinesterase inhibition. Repeated overexposure may cause more severe cholinesterase inhibition with more pronounced signs and symptoms. May lead to rapid onset of nausea, vomiting, diarrhea, abdominal pain, pinpoint pupils, blurred vision, profuse sweating, temporary paralysis, respiratory depression, convulsions.

Chronic Effects:

This product contains ingredients that are considered to be probable or suspected human carcinogens (see Section 11 - Chronic).

4. FIRST AID MEASURES

FIRST AID MEASURES FOR ACCIDENTAL:**Eye Exposure:**

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin Exposure:

In case of contact, immediately wash with plenty of soap and water for at least 15 minutes. Seek medical attention. Remove contaminated clothing and shoes while washing. Clean contaminated clothing and shoes before re-use or discard if they cannot be thoroughly cleaned.

Inhalation:

Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.

Ingestion:

If victim is conscious and alert, give 2-3 glasses of water to drink and induce vomiting by touching back of throat with a finger. Do not induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs and the victim is conscious,

give water to further dilute the chemical.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

NOTES TO PHYSICIAN:

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. This product contains an oxime carbamate insecticide, which is a cholinesterase inhibitor. Overexposure to this substance may cause toxic signs and symptoms due to stimulation of the cholinergic nervous system. These effects of overexposure are spontaneously and rapidly reversible. Specific treatment consists of parenteral atropine sulfate. Improve tissue oxygenation as much as possible before administering atropine to minimize the risk of ventricular fibrillation. 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 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. To aid in confirmation of a diagnosis, urine samples should be obtained within 24 hours of exposure and immediately frozen. Call Rhone-Poulenc at 1-800-334-7577 before sending samples. Analyses will be arranged by Rhone-Poulenc Ag Company. Persons regularly exposed in manufacturing and handling this product should have a preexposure and periodic red blood cell cholinesterase level checks. Narcotics and other sedatives should not be used. Further, drugs like 2-PAM (pyridine-2-aldoxime methiodide) are NOT recommended unless organophosphate intoxication is also suspected.

5. FIRE FIGHTING MEASURES

FIRE HAZARD DATA:

Flash Point:

Not Applicable

Extinguishing Media:

Recommended (small fires): carbon dioxide, dry chemical,
Recommended (large fire): polymer foam, ordinary foam, alcohol foam, water fog.

Special Fire Fighting Procedures:

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. 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.

Unusual Fire and Explosion Hazards:

Not combustible.

Hazardous Decomposition Materials (Under Fire Conditions):

oxides of nitrogen oxides of sulfur oxides of carbon Aldicarb nitrile Aldicarb oxime methylamine

6. ACCIDENTAL RELEASE MEASURES

Evacuation Procedures and Safety:

Evacuate and isolate spill area. Exclude all except properly equipped emergency personnel.

Containment of Spill:

Follow procedure described below under Cleanup and Disposal of Spill.

Cleanup and Disposal of Spill:

Shovel up into an appropriate closed container (see Section 7: Handling and Storage). Avoid creation of dusty conditions. Decontaminate tools and equipment following cleanup.

Environmental and Regulatory Reporting:

Do not flush to drain. If spilled on the ground, the affected area should be scraped clean and placed in a appropriate container for disposal. Prevent material from entering public sewer system or any waterways. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures:

< 46 C (115 F)

Handling:

Do not get on skin or in eyes. Do not breathe dusts. Do not ingest. Dry powders can build static electricity charges when subjected to the friction of conveying, mixing or sliding. Provide adequate precautions, such as electrical grounding, or inert atmospheres when material is used in the presence of flammable materials to prevent ignition.

Storage:

Store in an area that is dry, cool, out of reach of children and animals, away from food, feedstuffs, fertilizers and seed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks:

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Exposure Guidelines:

Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements. The following limits apply to this material, where, if indicated, S=skin and C=ceiling limit:

ALDICARB

	Notes	TWA	STEL
MFG	S	0.07 mg/cu m	

GYPSUM

	Notes	TWA	STEL
OSHA		5 mg/cu m	
OSHA		15 mg/cu m	

DICHLOROMETHANE

	Notes	TWA	STEL
ACGIH		174 mg/cu m	
ACGIH		50 ppm	

Engineering Controls:

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: local exhaust ventilation at the point of generation.

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 devices 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.

Eye/Face Protection:

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices.

Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material. Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area. Face contact should be prevented through use of a face shield.

Skin Protection:

Skin contact should be prevented through use of suitable protective clothing, gloves and footwear, selected with regard for use conditions and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Work Practice Controls:

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: (1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. (2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet. (3) Wash exposed skin promptly to remove accidental splashes of contact with this material. In addition, based upon the specific hazards of this product: (4) Do not take clothing/objects contaminated by this material off the work site. (5) Shower and change into street clothes before leaving the work site.

9. PHYSICAL AND CHEMICAL PROPERTIES

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.

Physical Appearance:

dark brown to black granules solid.

Odor:

sulfur-like odor.

pH:

6 to 7 at 1 wt/wt%.

Specific Gravity:

Not Available

Water Solubility:

slightly soluble

Melting Point Range:

Not Available

Boiling Point Range:

Not Available

Vapor Pressure:

Not Available

Vapor Density:

Not Available

Molecular Weight:

190.3

10. STABILITY AND REACTIVITY

Chemical Stability:

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

Conditions To Be Avoided:

dusting conditions
extreme heat
open flame

Materials/Chemicals To Be Avoided:

strong bases

The Following Hazardous Decomposition Products Might Be Expected:

Decomposition Type: thermal oxides of nitrogen oxides of sulfur
oxides of carbon Aldicarb nitrile Aldicarb oxime methylamine

Hazardous Polymerization Will Not Occur.

Avoid The Following To Inhibit Hazardous Polymerization:

not applicable

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation:

No test data found for product.

Acute Skin Irritation:

No test data found for product.

Acute Dermal Toxicity:

Toxicological Information and Interpretation

LD50 - lethal dose 50% of test species, 283 mg/kg, rat. LD50 -
lethal dose 50% of test species, > 2000 mg/kg, rabbit.

Acute Respiratory Irritation:
No test data found for product.

Acute Inhalation Toxicity:
No test data found for product.

Acute Oral Toxicity:
Toxicological Information and Interpretation
LD50 - lethal dose 50% of test species, 5.29 mg/kg, rabbit.

Chronic Toxicity:
This product contains the substances that are considered to be probable or suspected human carcinogens as follows:

Regulatory Agency Listing Carcinogen

Ingredient Name	OSHA	IARC	NTP	ACGIH
DICHLOROMETHANE	No	2B	Yes	A2

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.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information
For ecotoxicological data call the product information phone number listed in Section 1.

Chemical Fate Information:
For chemical fate data call the product information phone number listed in Section 1.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:
Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material. EPA Hazardous Waste - YES

14. TRANSPORTATION INFORMATION

For Transportation Regulatory Information call the Product Information phone number in Section 1.

15. REGULATION INFORMATION

FEDERAL REGULATIONS

TSCA Inventory Status:

This product is excluded from TSCA because it is solely for FIFRA regulated use.

SARA Title III Hazard Classes:

Fire Hazard	- NO
Reactive Hazard	- NO
Release of Pressure	- NO
Acute Health Hazard	- YES
Chronic Health Hazard	- YES

SARA 313 Chemicals

ALDICARB (15%)
DICHLOROMETHANE (0.3%)

SARA Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances

Ingredient	CERCLA/SARA RQ	SARA EHS TPQ
ALDICARB	1 lbs	100 10000 lbs
DICHLOROMETHANE	1000 lbs	

STATE REGULATIONS:

This product contains the following components that are regulated under California Proposition 65:

Ingredient Name	Cancer	Reprod.	No Sign.	Risk Lvl (ug/day)
	List	List	California	MFG
DICHLOROMETHANE	Y	N	200	ND

16. OTHER INFORMATION

National Fire Protection Association Hazard Ratings--NFPA(R):

4 Health Hazard Rating--Severe
0 Flammability Rating--Minimal
1 Instability Rating--Slight

National Paint & Coating Hazardous Materials Identification

3 Health Hazard Rating--Serious
0 Flammability Rating--Minimal
1 Reactivity Rating--Slight

Reason for Revisions:

Change of Company Name & Address

Key Legend Information:

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
TLV - Threshold Limit Value
PEL - Permissible Exposure Limit
TWA - Time Weighted Average
STEL - Short Term Exposure Limit
NTP - National Toxicology Program

IARC - International Agency for Research on Cancer
ND - Not determined

Disclaimer:

The information herein is given in good faith but no warranty, expressed or implied, is made.