



MATERIAL SAFETY DATA SHEETS

14

Aldicarb

1. CHEMICAL IDENTITY

Chemical Name : Aldicarb

Chemical Classification: Toxic

Trade Name : Temik

Synonyms: Carbanolate, 2-methyl-2-(methylthio) propionaldehyde o-(methylcarbamoyl) oxime

Formula : C₇H₁₄N₂O₂S

CAS No: 116-06-3

UN No: 2757

Regulated Identification

Shipping Name : Carbamate Pesticide

Hazchem Code : 2X

Codes / Label : Class 6.1, Toxic

Hazardous Waste ID No : 15

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1 Aldicarb	116-06-3	3	
2		4	

2. PHYSICAL / CHEMICAL DATA

Boiling Pt. °C:	Decomposes	Physical State:	Solid	Appearance:	White crystalline
Melting Pt °C:	99-100	Vapour Pressure @ 35°C mmHg:	9.75X10 ⁻⁵ mm Hg @ 20 °C	Odour:	A slightly sulfurous odor.
Vapour Density(Air =1):	6.6	Solubility in water at 30°C g/100ml:	Almost insoluble	Others:	Soluble in acetone, benzene. Decomposes above 100 deg C
Specific Gravity (Water =1):	1.1950 at 25°C			pH :	

3. FIRE / EXPLOSION HAZARD DATA

Flammability :	No	LEL:		Flash Point °C in OC:	
TDG Flammability:		UEL:		Flash Point °C in CC:	

Autoignition Temperature °C :

Explosion sensitivity to impact:

Explosion sensitivity to static Electricity:

Hazardous Combustion Products : When heated, aldicarb emits very toxic fumes of nitrogen oxides and sulfur oxides.

Hazardous Polymerization : Will not occur

Combustible Liquid:	No	Explosive Material:	No	Corrosive Material	No
Flammable Material:	No	Oxidiser :	No	Others:	
Pyrophoric Material:	No	Organic Peroxide :	No		

4. REACTIVITY DATA

Chemical Stability : Heat-sensitive, inherently unstable chemical. Must be stabilised to obtain a practical shelf-life.

Incompatibility with other material : Incompatible with highly alkaline substances.

Reactivity : Reacts with strong oxidisers and acids.

Hazardous :
Reaction Products

5. HEALTH HAZARD DATA

Routes of entry: Oral, dermal, eyes and inhalation.

Effects of Exposure / Symptoms:

Inhalation: Dyspnea, rales, bronchoconstriction and pulmonary edema may occur.

Skin: Diaphoresis may be seen.

Eyes: Pinpoint pupils, tearing and excessive salivation may be seen.

Ingestion: Nausea, vomiting, diarrhea, and abdominal cramping may be noted.

Emergency Treatment :

Inhalation: Remove the victim from exposure and have the physician treat with atropine injections, if necessary.

Skin: Remove contaminated clothing and jewelry. Wash the skin, including hair and nails, vigorously; do repeated soap washings. Discard contaminated clothing.

Eyes: Irrigate exposed eyes with copious amounts of tepid water for at least 15 minutes. If irritation, pain, swelling, lacrimation, or photophobia persist, the patient should be seen in a health care facility.

Ingestion: Induce vomiting until vomit fluid is clear. Make the victim drink plenty of milk or water. Have him lie down and keep him warm. Do not induce vomiting if the victim is unconscious.

LD50 (oral-rat) mg/kg: 650 ug/kg	STEL:
LC50 (rat) mg/kg: 200 mg/cu m/5 hr	Odour Threshold:
Permissible Exposure Limit:	TLV (ACGIH) :

NFPA Hazard	Health	Flammability	Reactivity	Special
Signals				

6. PREVENTIVE MEASURES

Personal Protective Equipment : Wear long-sleeved clothing and protective gloves when handling. Wear appropriate chemical protective clothing, gloves, boots and goggles.

Handling : Keep in a cool, dry well ventilated place away from oxidizers and acids.

Storage : Store at in a clean, dry, and well-ventilated area.

Precautions : Avoid direct physical contact.

7. EMERGENCY / FIRST AID MEASURES

FIRE:

Fire Extinguishing Media : If involved in fire use CO₂, dry chemical, water as fire extinguishing media.

Special Procedure : Keep containers, if exposed to heat or flame, cool by spraying water.

Unusual Hazards :

EXPOSURE: First Aid Measures:

Inhalation: Remove the victim from exposure and have the physician treat with atropine injections, if necessary.

Skin: Remove contaminated clothing and jewelry. Wash the skin, including hair and nails, vigorously; do repeated soap washings. Discard contaminated clothing.

Eyes: Irrigate exposed eyes with copious amounts of tepid water for at least 15 minutes. If irritation, pain, swelling, lacrimation, or photophobia persist, the patient should be seen in a health care facility.

Ingestion: Induce vomiting until vomit fluid is clear. Make the victim drink plenty of milk or water. Have him lie down and keep him warm. Do not induce vomiting if the victim is unconscious.

Antidotes / Dosages: Atropine sulphate

SPILLS :

Steps To Be Taken : Sweep and collect without making dust. Wash the area with water and soda ash.

Waste Disposal Method: Seal all wastes in tight plastic bags for eventual disposal.

8. ADDITIONAL INFORMATION / REFERENCES

Aldicarb is used as an insecticide, acaricide and nematicide. It has a high acute toxicity as an acetylcholinesterase inhibitor. It has been found to leach in soils resulting in contamination of ground water. It is highly toxic to wild life organisms. The metabolisms of aldicarb in plants and animals are similar. It is metabolised rapidly by oxidation to the sulfoxide metabolite and then to sulfone metabolite. Both the metabolites are then hydrolysed and degraded to yield less toxic entites. Neither aldicarb nor its metabolites are neurotoxic, oncogenic, teratogenic or mutagenic. In the USA all aldicarb products are classified as "Restricted Use" in order to minimize ground water contamination.

9. MANUFACTURERS / SUPPLIERS DATA

NAME OF FIRM :	Contact person
MAILING ADDRESS :	in Emergency :
TELEPHONE / TELEX NOS :	Local Bodies involved :
TELEGRAPHIC ADDRESS :	Standard Packing :
OTHERS :	Trem Card Details / Ref :

10. DISCLAIMER

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Total No. of Pages: 3