

Material Safety Data Sheet

Aldicarb Oxime

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Aldicarb Oxime

OTHER/GENERIC NAMES: Aldicarb Oxime (ADO)
2-methyl-2-(methylthio) propionaldehyde oxime
ADO Oxime

PRODUCT USE: Industrial chemical

MANUFACTURER: Honeywell
Specialty Chemicals
101 Columbia Road
Box 1053
Morristown, New Jersey 07962-1053

FOR MORE INFORMATION CALL:
(Monday-Friday, 9:00am-4:30pm)
1-800-707-4555

IN CASE OF EMERGENCY CALL:
(24 Hours/Day, 7 Days/Week)
800-424-9300 (CHEMTREC - Domestic)
703-527-3887 (CHEMTREC - International)

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Aldicarb Oxime	1646-75-9	> 99.0

Trace impurities and additional material names not listed above may also appear in Section 15 towards the end of the MSDS. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Material is a clear colorless liquid with an unpleasant musty odor. It will irritate the skin and respiratory tract and may cause severe eye irritation. Prolonged contact may cause permanent eye damage. Determined to be of moderate oral toxicity.

POTENTIAL HEALTH HAZARDS

SKIN: May cause irritation.

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EYES: Liquid contact may cause irritation and may cause permanent damage if not promptly removed by first-air measures. Exposure to mist or vapor may cause irritation.

INHALATION: Inhalation of mist or vapor may irritate respiratory tract. Systemic effects similar to those described for ingestion may occur.

INGESTION: Moderate oral toxicity. Ingestion may cause effects to the central nervous system and may cause blood effects reducing the blood's ability to transport oxygen (methemoglobinemia and anemia).

DELAYED EFFECTS: No information is available

Ingredients found on one of the OSHA designated carcinogen lists are listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
No ingredients listed in this section.			

4. FIRST AID MEASURES

SKIN: Immediately flush with large quantities of water for at least 15 minutes. Remove contaminated clothing and launder before reuse. Get medical attention for irritation or any other symptom.

EYES: Immediately flush with water, continuing for at least 15 minutes. Get immediate medical attention.

INHALATION: Remove to fresh air. If breathing has stopped, apply artificial respiration. If breathing is difficult, give oxygen provided a qualified operator is available. Get medical attention.

INGESTION: If conscious, give two to four glasses of water or milk and induce vomiting by touching finger to back of throat. Get immediate medical attention.

ADVICE TO PHYSICIAN: No additional instructions. Treat according to symptoms present.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: 244°F (118°C)

FLASH POINT METHOD: Open Cup.

AUTOIGNITION TEMPERATURE: 545°F (285°C)

UPPER FLAME LIMIT (volume % in air): Not determined

LOWER FLAME LIMIT (volume % in air): Not determined

FLAME PROPAGATION RATE (solids): Not applicable

OSHA FLAMMABILITY CLASS: None

EXTINGUISHING MEDIA: Use carbon dioxide, dry chemical, water spray or foam.

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UNUSUAL FIRE AND EXPLOSION HAZARDS:

Thermal decomposition would be expected to produce methyl mercaptan, dimethyldisulfide, methacrolein, methacrolein oxime, methylthio isobutyronitrile and methylthio isobutyroaldehyde. Combustion products may include carbon monoxide and oxides of nitrogen.

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:

Wear NIOSH approved self-contained breathing apparatus with full facepiece and protective clothing to prevent contact with skin and eyes. Use water spray to cool fire exposed containers.

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE: (Always wear recommended personal protective equipment.)

Eliminate sources of ignition. Provide proper ventilation to area. Absorb with inert absorbant and place in an approved, labeled chemical waste container. For large spills, dike up with inert material and pump into same container. Do not allow pump to overheat. Do not allow to enter into sewers or waterways.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

7. HANDLING AND STORAGE

NORMAL HANDLING: (Always wear recommended personal protective equipment.)

Keep away from heat, flame and oxidizers. Avoid contact with skin, eyes and clothing. Launder contaminated clothing before reuse. Do not breathe vapor.

STORAGE RECOMMENDATIONS:

Store in a cool, dry, well ventilated area away from heat and oxidizers. Protect containers from physical damage. Keep upright and tightly closed. Do not reuse drum.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Mechanical ventilation is preferred. Use of local exhaust and/or a fume hood is recommended.

PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION:

Minimize skin contact by wearing long-sleeved shirt, gloves and trousers for routine product handling. Use impervious clothing if liquid contact is possible. Showering after work is recommended.

EYE PROTECTION:

Under normal conditions, wear chemical safety glasses or goggles. If liquid contact is possible, add a full-face shield.

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RESPIRATORY PROTECTION:

Not required for properly ventilated areas. If there is potential for inhalation of vapor or mist, use an appropriate NIOSH approved respirator.

The respirator must be selected based on contamination levels and use conditions found in the workplace, must not exceed the working limits of the respirator and be approved by the National Institute for Occupational Safety and Health (NIOSH) and used in accordance with Occupational Safety and Health Administration (OSHA) 29 CFR 1910.134.

ADDITIONAL RECOMMENDATIONS:

Provide eyewash stations and safety showers convenient to work areas.

EXPOSURE GUIDELINES (Guidelines exist for the following ingredients)

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER LIMIT</u>
Aldicarb Oxime	None	None	10 ppm (TWA)*

* = Limit established by Honeywell International, Inc.

** = Workplace Environmental Exposure Level (AIHA).

*** = Biological Exposure Index (ACGIH).

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:

None.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear, colorless
PHYSICAL STATE:	Liquid
MOLECULAR WEIGHT:	133
CHEMICAL FORMULA:	C ₅ H ₁₁ NOS
ODOR:	Unpleasant musty odor
SPECIFIC GRAVITY (water = 1.0):	1.05 gm/ml
SOLUBILITY IN WATER (weight %):	2.5 @ 72°F (22°C)
pH:	About 7
BOILING POINT:	410°F (210°C). Boils with partial decomposition
MELTING POINT:	69.8°F (21°C)
VAPOR PRESSURE:	< 0.1 mm Hg @ 68°F (20°C)
VAPOR DENSITY (air = 1.0):	4.6 (estimated)
EVAPORATION RATE:	> 1.0 COMPARED TO: Butyl acetate = 1.0
% VOLATILES:	0
FLASH POINT:	244°F (118°C)

(Flash point method and additional flammability data are found in Section 5.)

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10. STABILITY AND REACTIVITY

NORMALLY STABLE? (CONDITIONS TO AVOID):

Stable under normal conditions. Do not expose to high temperatures.

INCOMPATIBILITIES:

Do not expose to acids, alkalies or oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition products include methyl mercaptan, dimethyldisulfide, methacrolein, methacrolein oxime, methylthio isobutyronitrile and methylthio isbutyraldehyde.

HAZARDOUS POLYMERIZATION?

Will not occur.

11. TOXICOLOGICAL INFORMATION

IMMEDIATE (ACUTE) EFFECTS:

Acute Oral (rat) LD₅₀ = 742 mg/kg

Acute Dermal (rabbit) LD₅₀ = 1900 mg/kg

Inhalation (rat) LC₅₀ = 1230 mg/m³/4 hr.

DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:

A 7-day repeated feeding study in rats showed that the no-effect level was between 125 and 250 mg/kg/day.

A 90-day chronic toxicity study in albino rats at levels up to 125 mg/kg/day (feeding) showed lower average body weight in the higher dose for females; however, no adverse effects in mortality, hematology, blood chemistry, urinalysis, or gross pathology were noted.

OTHER DATA:

None.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:

275 ppm/96 hr./bluegill/LC₅₀/EC₅₀/fresh water

28 ppm/96 hr./rainbow trout/LC₅₀/EC₅₀/fresh water

343 ppm/48 hr./water flea/LD₅₀/EC₅₀/fresh water

Microbial Toxicity:

> 5000 ppm/5 hr./activated sludge/IC₅₀

Material appears to be non-biodegradable

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13. DISPOSAL CONSIDERATIONS

RCRA

Is the unused product a RCRA hazardous waste if discarded? No.

If yes, the RCRA ID number is: Not applicable.

OTHER DISPOSAL CONSIDERATIONS: Disposer must comply with Federal, State and Local disposal or discharge laws.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

US DOT HAZARD CLASS: Not regulated

US DOT ID NUMBER: None required

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA INVENTORY STATUS: Listed on the TSCA Inventory

OTHER TSCA ISSUES: None.

SARA TITLE III/CERCLA

RQs & TPQs:

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

<u>INGREDIENT NAME</u>	<u>SARA/CERCLA RQ (lb)</u>	<u>SARA EHS TPO (lb)</u>
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No ingredients listed in this section.

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

SECTION 311 HAZARD CLASS: Immediate. Delayed.

SARA 313 TOXIC CHEMICALS:

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The following ingredients are SARA 313 "Toxic Chemicals". CAS numbers and weight percents are found in Section 2.

INGREDIENT NAME

COMMENT

No ingredients listed in this section.

STATE RIGHT-TO-KNOW

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

INGREDIENT NAME

WEIGHT % COMMENT

No ingredients listed in this section.

ADDITIONAL REGULATORY INFORMATION:

None

WHMIS CLASSIFICATION (CANADA):

Not determined

FOREIGN INVENTORY STATUS:

Listed on the EINECS Inventory. EINECS No. 216-709-5
On the Canadian NDSL.
On the Korean Inventory. Korean Gazette Number KE-24441.
On the Australian Inventory.

16. OTHER INFORMATION

CURRENT ISSUE DATE: January 27, 2000.

PREVIOUS ISSUE May 25, 1999.

DATE:

CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:

Replaced AlliedSignal logo with Honeywell logo.
Added CHEMTREC International Telephone Number, Section 1.
Amended Foreign Inventory Status, Section 15.

OTHER INFORMATION: None.