

Pesticide Labeling: First Aid Statements¹

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This document explains first aid statements seen on pesticide labels and discusses the toxicity criteria used in determining the manner in which they are presented on the pesticide label. Examples of typical statements regarding first aid found on pesticide labels are provided.

Introduction

A co-worker has accidentally ingested a small amount of concentrated pesticide from a splash that occurred while pouring the concentrate into the sprayers tank (Figure 1). Should you give the person water to drink? Maybe it would be more appropriate to help your co-worker induce vomiting; but then again, maybe not.

The pesticide label's first aid statements contain valuable information regarding treatment of victims subjected to pesticide exposure – for all major routes of entry into the body, including ocular, oral, dermal, and inhalation.



Figure 1. Properly treating a victim who has been orally exposed to a pesticide is a serious situation.

Which pesticides labels require first aid statements?

A first aid statement (Figure 2) is required when any acute toxicity study result is classified as Category I, II, or III (Table 1). Although not required, it is acceptable for a pesticide manufacturer to include first aid statements on product labels for which studies have shown to be classified as Category IV. The statements will appear under one of the following headings: “First Aid” or “Statements of Practical Treatment.” If the product is classified as toxicity

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Use pesticides safely. Read and follow directions on the manufacturer's label.

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Category I, the statement must appear on the labels front panel.

Products classified as toxicity Categories II and III may have their first aid statements on any panel of the products label. However, if they don't appear on the front panel, a referral statement such as "see side/back panel for first aid" should appear on the front panel in close proximity to the signal word. First aid statements are organized so that the most severe routes of exposure, as shown with the toxicity classification, are listed first. Examples of typical first aid statements are shown in Table 2.

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> 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. Do not give anything by mouth to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with 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:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
<p>For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577.</p> <p>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</p> <p>Aldicarb is a N-methyl carbamate.</p>	

Figure 2. First aid statements on pesticide labeling contain practical directions.

Unique first aid statements for certain pesticides

If the product contains an organophosphate or carbamate. These pesticides inhibit cholinesterase; therefore, a first aid statement similar to the following will be shown: "Product contains (either carbamate or organophosphate) that inhibits cholinesterase."

If the product contains zinc phosphide. Statements similar to the following may appear: "If swallowed: Immediately call a Poison Control Center or doctor or transport the person to the nearest hospital. DO NOT DRINK WATER. Do not administer anything by mouth or make the person vomit unless advised to do so by a doctor."

Note to physicians

Whenever a person has to be taken to an emergency facility due to a pesticide exposure, the products label should be taken along. Found on the label, the note to physicians provides detailed instructions for treating an exposure victim (Figure 3). It is found on labels of:

- All products that are classified as toxicity Category I.
- Products which are corrosive or classified as toxicity Category I for eye or skin. These products will contain the following note to physician: "Probable mucosal damage may contraindicate the use of gastric lavage."
- Products which contain at least 10% petroleum distillate will have a note to physician such as: "Contains petroleum distillate. Vomiting may cause aspiration pneumonia."
- Products which produce physiological effects requiring specific antidotal or medical treatment such as: cholinesterase inhibitors, metabolic stimulants, and anticoagulants.

The note to physician is located in close proximity to the first aid statements, but is clearly distinguished from it. It is not placed within the first aid statements, but appears below the first aid statements.

NOTE TO PHYSICIAN: TEMIK® brand aldicarb is a n-methyl 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. Gastric lavage may be used if this product has been swallowed. TEMIK® brand aldicarb 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 overatropinization. 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. 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 Bayer CropScience. Consultation on therapy can be obtained at all hours by calling the Bayer CropScience emergency number: 1-800-334-7577.

Figure 3. Physicians obtain treatment information from the labels note to physicians.



Figure 4. The note to physicians provides information specific to that product for treating an exposure victim.

Additional information

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Table 1. Acute toxicity measures and warnings.

Category	Signal word	Oral LD ₅₀ mg/kg	Dermal LD ₅₀ mg/kg	Inhalation LC ₅₀ mg/l	Oral lethal dose*
I Highly toxic	DANGER, POISON (skull and crossbones)	0 to 50	0 to 200	0 to 0.2	A few drops to a teaspoon
II Moderately toxic	WARNING	50 to 500	200 to 2,000	0.2 to 2.0	Over a teaspoon to one ounce
III Slightly toxic	CAUTION	500 to 5,000	2,000 to 20,000	2.0 to 20.0	Over one ounce to one pint
IV Relatively non-toxic	CAUTION (or no signal word)	5,000+	20,000+	20+	Over one pint to one pound

* Probable for a 150-pound person.

Table 2. Typical first aid statements according to route of exposure and toxicity category.

Route of exposure and toxicity category	First aid statement
Ingestion treatment for acute oral toxicity Categories I - III	If swallowed: -Call a poison control center or doctor immediately for treatment advice. -Have person sip a glass of water if able to swallow. -Do not induce vomiting unless told to by a poison control center or doctor. -Do not give anything to an unconscious person.
Acute oral toxicity Category IV	Statement is not required. Manufacturers may use statements that are shown for Categories 1 – III if they choose.
Skin exposure treatment for acute dermal toxicity, and irritation Categories I - III	If on skin: -Take off contaminated clothing. -Rinse skin immediately with plenty of water for 15 – 20 minutes. -Call a poison control center or doctor for treatment advice.
Dermal and skin irritation toxicity Category IV	Statement is not required. Manufacturers may use statements that are shown for Categories I – III if they choose.
Inhalation treatment for acute toxicity Categories I - III	If inhaled: -Move person to fresh air. -If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. -Call a poison control center or doctor for further treatment advice.
Inhalation toxicity Category IV	Statement is not required. Manufacturers may use statements that are shown for Categories I – III if they choose.
Eye exposure treatment for eye irritation Categories I – III	If in eyes: -Hold eye open and rinse slowly and gently with 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.
Eye irritation Category IV	Statement is not required. Manufacturers may use statements that are shown for Categories I – III if they choose.
General information to include either near the first aid statement or emergency phone number	-Have the product container or label with you when calling a poison control center or doctor or going for treatment.