

MATERIAL SAFETY DATA SHEET:

Solution Water Soluble

1. INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS #</u>	<u>Weight %</u>	<u>Common Name</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid	2008-39-1	96.92%	DMA Salt of 2,4-D	10 mg/ m3 (2,4-D Acid)	N/A
Other ingredients including water* and sequesterents	*7732-18-5	3.08%	Inert Ingredients	N/A	N/A
	Total	100.00%			

2. HEALTH DATA

PRIMARY ROUTE OF ENTRY: Dermal/ Eye: Yes Oral: Yes Inhalation: No

SYMPTOMS OF EXPOSURE: Nonspecific: muscle weakness, lethargy, loss of appetite, abdominal pains, headache, or shortness of breath.

ACUTE HEALTH EFFECTS

Inhalation: Avoid inhalation of dust or mist. May irritate the respiratory tract, and/or cause dizziness.

Eyes: Direct and prolonged eye exposure to the concentrated product may cause corneal opacity, irreversible eye damage.

Skin: This product is considered a minimal skin irritant and is not a dermal sensitizer. Harmful if absorbed through skin. May cause similar symptoms to ingestion.

Ingestion: May cause muscle weakness, nausea, diarrhea, and abdominal pain. Fall in blood pressure or myotonia (prolonged muscular spasm) may occur under extreme exposure conditions. Can be fatal.

TOXICOLOGICAL DATA

Acute Oral LD50: 614 mg/ kg (male rats); 404 mg/ kg (female rats)
Acute Dermal LD50: > 2.0 g/ kg (male rabbits); 1.414 g/ kg (female rabbits)
Acute Inhalation LC50: physical state of product did not mandate study

Eye Irritation: corrosive, irreversible damage (rabbits)
Dermal Irritation: mild irritation (rabbits)
Dermal Sensitization: not a sensitizer (guinea pigs)

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:

Skin exposure may aggravate existing skin conditions. Exposure to dust or mist may aggravate existing respiratory conditions.

CHRONIC HEALTH EFFECTS:

Agency Listing Carcinogen		
<u>NTP</u>	<u>IARC</u>	<u>OSHA</u>
No	No	No

Repeated or prolonged overexposure to phenoxy herbicides may cause liver, kidney, gastrointestinal or muscular system effects. The EPA's Science Advisory Panel has given 2,4-D a class D classification (not classifiable as to human carcinogenicity). Various epidemiological studies have yielded conflicting results with the majority being negative. The current scientific consensus is that there is no proven causal association between 2,4-D and cancer. Recent studies have not shown 2,4-D to be a mutagen or teratogen.

3. FIRST AID MEASURES

EYE CONTACT:	Hold eyelids open and flush entire eye with a steady, gentle stream of water for 15 minutes. Get medical attention at once.
INHALATION:	Remove victim to fresh air. If not breathing, give artificial respiration preferably mouth to mouth. Get medical attention.
INGESTION:	Call a physician or Poison Control Center. Drink promptly a large quantity of milk, egg whites or gelatin solution, or, if these are not available, drink large quantities of water. Avoid alcohol. Do not induce vomiting or give anything by mouth to an unconscious person.
SKIN CONTACT:	Wash affected area with soap and water. If irritation persists, get medical attention.
NOTE TO PHYSICIAN:	Probable mucosal damage may contraindicate gastric lavage. If large amounts of the product were ingested, the stomach should be emptied by gastric intubation.

4. FIRE FIGHTING MEASURES

FLASH POINT (F):	N/A
FLASH POINT METHOD USED:	None- dry powder, does not flash
EXTINGUISHING MEDIA:	Use dry chemical, CO ₂ , or foam if available. Water will dissolve and spread product.
COMBUSTION PRODUCTS:	May include, but are not limited to: hydrogen chloride and nitrogen oxides.
SPECIAL FIRE FIGHTING PROCEDURES:	May emit toxic fumes when heated to decomposition. Use positive pressure self-contained breathing apparatus in smoke or fumes. Contain water used in fire fighting to prevent entry to public water system.
UNUSUAL FIRE & EXPLOSION HAZARDS:	None known See Section 13, REGULATORY INFORMATION, for NFPA rating.

5. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED:

If water soluble bags are damaged, sweep up all spilled material and place in a closed, labeled container for proper use or disposal. Soak up spilled solution with an inert absorbent such as granules. Contain in a closed, marked container for proper disposal.

6. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Always use original container to store pesticides in a secure warehouse or storage building. This product should be stored in a cool, dry location. Do not store near seeds, fertilizers, insecticides, or fungicides. Container should be opened in a well ventilated area. All containers should be kept tightly sealed when not in use. Do not contaminate water, feed or foodstuff by storage or disposal.

WORK HYGIENIC PRACTICE:

Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

7. EXPOSURE CONTROL/PERSONAL PROTECTION

Wear a NIOSH/MSHA approved pesticide respirator when exposed to mist or respirator with a dust filter when exposed to dust.

Open ventilation. Reduce all dust or mist with local exhaust.

Rubber or chemical-resistant gloves

EYE PROTECTION:

Wear splash goggles, face shield, or safety glasses with front, brow, and temple protection.

OTHER PROTECTIVE EQUIPMENT:

Long sleeved shirt, long pants, socks and shoes. A chemical resistant apron should be worn in some instances. (See Precautionary Statements on product label for details)

8. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Dark brown powder, phenolic odor.
SOLUBILITY IN WATER:	100% in water
SPECIFIC GRAVITY:	N/A
pH:	4.5 - 5.5
FREEZING POINT (F):	N/A
BULK DENSITY:	34 lbs/ cubic foot

9. STABILITY AND REACTIVITY

STABILITY:	Stable
CONDITIONS TO AVOID:	Avoid fire conditions
INCOMPATIBILITY:	Strong oxidizers or acids

HAZARDOUS BYPRODUCTS: None

HAZARDOUS POLYMERIZATION: Will Not Occur

10. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:

2,4-D has a relatively short half-life (on average 6-9 days in soil, 6-7 in grass) and is readily degraded into nontoxicological substances by soil microbes and aquatic microorganisms. 2,4-D is soluble in water and, therefore, does not bioaccumulate in mammals or in other organisms.

ECOTOXICITY:

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants.

11. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL:

Pesticide wastes are toxic. Improper disposal of excess pesticide spray mixtures or rinsate is a violation of Federal law and may contaminate groundwater. If product cannot be disposed of by use according to the label, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

Dispose of empty outer plastic bags and shipping case in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

12. TRANSPORTATION INFORMATION

DOT REGULATED CONTAINER SIZE: N/A

PROPER SHIPPING NAME: Compound, Weed Killing, Not DOT Regulated.

13. REGULATORY INFORMATION

SARA TITLE III; Section 311/312:

An immediate and delayed health hazard.

REPORTABLE QUANTITY (RQ):

100 lbs of 2,4-D acid equivalent or approximately 124 lbs of Solution Water Soluble. For releases greater than the RQ, contact the National Response Center at (800) 424-8802.

SARA TITLE III; Section 313- This product contains the following substances subject to the reporting requirements of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

N/A

HMIS INFORMATION	
	2
FLAMMABILITY:	1
REACTIVITY:	0
PROTECTIVE:	D

NFPA INFORMATION	
TOXICITY:	2
FIRE:	1
REACTIVITY:	0
SPECIAL:	N

The information given herein is to the best of our knowledge true and accurate. No warranty, however, expressed or implied, is made.