

Material Safety Data Sheet

Effective Date: 07-JAN-2000  
Product: 2,4-D AMINE 4

I. IDENTIFICATION

Chemical Name: DIMETHYLAMINE SALT OF 2,4-D ACETIC ACID  
Chemical Family: CHLORINATED PHENOXY HERBICIDE  
Formula: NOT APPLICABLE, FORMULATED MIXTURE  
Synonyms: NONE  
CAS Number: SEE INGREDIENT STATEMENT, SECTION III.  
EPA Number: 228-145-5905

II. PHYSICAL DATA

Boiling Point: 212 DEGREES F.  
Freezing Point: >40 DEGREES F.  
Spec Gravity: 1.160 GMS/CC  
Vapor Pressure: 16.5 MMHG @ 20 DEG C  
Vapor Density: <1 (WATER VAPOR)  
Solubility: SOLUBLE  
Volatiles: NOT DETERMINED  
Evaporation: NOT DETERMINED  
Melting Point: NOT APPLICABLE  
Appearance: AMBER/BROWN LIQUID, WITH PUNGENT ODOR.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
DIMETHYLAMINE SALT OF 2,4-DICHLOROPHENOXYACETIC ACID	02008-39-1	47.30	10 MG/M3	SKIN & EYE IRRITANT
INERT INGREDIENTS, INCLUDING WATER AND SEQUESTERING AGENTS		52.70	NOT ESTABLISHED	NOT ESTABLISHED

IV. FIRE AND EXPLOSION HAZARD

Flash Point: AQUEOUS PRODUCT  
Autoignition Temp: NOT APPLICABLE  
Flammable Limit: NOT APPLICABLE  
Extinguishing Media: ALCOHOL FOAM, DRY CHEMICAL AND CARBON DIOXIDE EXTINGUISHING MEDIA.  
Special Fire Fight Proc: WEAR POSITIVE PRESSURE, SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING. DIKE AREA TO PREVENT CHEMICAL RUN OFF. STAY UPWIND AND FIGHT FIRE AT A SAFE DISTANCE.  
Fire and Expl Hazard: PRODUCT MAY PRODUCE TOXIC AND IRRITATING

Material Safety Data Sheet

Effective Date: 07-JAN-2000  
Product: 2,4-D AMINE 4

-----  
VAPORS AND FUMES UNDER FIRE CONDITIONS.  
-----

-----  
V. HEALTH HAZARD  
-----

Carcinogen Information: NOT LISTED BY NTP, IARC OR OSHA

ACUTE EFFECTS OF OVER EXPOSURE  
-----

Swallowing: SLIGHTLY TOXIC. THE ORAL LD50 FOR MALE RATS IS  
>1,000 MG/KG INGESTION MAY CAUSE  
GASTROINTESTINAL IRRITATION AND ULCERATION.  
Skin Absorption: SLIGHTLY TOXIC; THE DERMAL LD50 IN MALE  
RABBITS IS 1,122 MG/KG.  
Inhalation: A SINGLE EXPOSURE TO VAPORS IS NOT LIKELY TO  
BE HAZARDOUS. OVER EXPOSURE MAY CAUSE  
IRRITATION OF THE RESPIRATORY TRACT.  
Skin contact: NOT IRRITATING TO SKIN. PROLONGED SKIN  
EXPOSURE MAY RESULT IN THE MATERIAL BEING  
ABSORBED THROUGH THE SKIN.  
Eye Contact: MAY CAUSE SEVERE IRRITATION WITH CORNEAL INJURY  
WHICH MAY RESULT IN PERMANENT EYE DAMAGE.  
Chronic Effects: SIGNS AND SYMPTOMS OF EXCESSIVE EXPOSURE MAY BE  
NAUSEA, VOMITING, ABDOMINAL CRAMPS AND DIARRHEA.  
Other Hazard: NONE CURRENTLY KNOWN.

EMERGENCY AND FIRST AID PROCEDURES  
-----

Swallowing: GIVE ONE OR TWO GLASSES OF WATER TO DRINK AND  
INDUCE VOMITING. OBTAIN MEDICAL ATTENTION  
IMMEDIATELY.  
Skin: WASH SKIN THOROUGHLY WITH SOAP AND WATER. IF  
IRRITATION PERSISTS, CONSULT A PHYSICIAN.  
Inhalation: MOVE PERSON TO FRESH AIR. IF BREATHING BECOMES  
DIFFICULT, OBTAIN MEDICAL ATTENTION IMMEDIATELY.  
Eyes: IT IS IMPERATIVE TO FLUSH EYES WITH WATER FOR  
AT LEAST 30 MINUTES HOLDING EYELIDS OPEN.  
PROMPT MEDICAL ATTENTION IS ESSENTIAL.  
Notes to Physician: SUPPORTIVE CARE; TREATMENT BASED ON JUDGEMENT  
OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF  
THE PATIENT. THERE IS NO SPECIFIC ANTIDOTE. IF  
VICTIM IS FULLY ALERT, INDUCE EMESIS WITH  
SYRUP OF IPECAC. FOLLOWING EMESIS, ADMINISTER  
30 TO 50 GMS. OF ACTIVATED CHARCOAL. IN SEVERE  
POISONING RESULTING FROM THE INGESTION OF  
LARGE AMOUNTS OF THIS PRODUCT, FORCED ALKALINE  
DIURESIS MAY BE REQUIRED.

Material Safety Data Sheet

Effective Date: 07-JAN-2000  
Product: 2,4-D AMINE 4

-----  
-----  
VI. REACTIVITY  
-----

Stability: Stable  
Conditions to Avoid: AVOID ELEVATED TEMPERATURES AND OPEN FLAMES.  
Polymerization: Will Not Occur  
Conditions to Avoid: NONE CURRENTLY KNOWN.  
Incompatibility material: (SPECIFIC MATERIALS TO AVOID) ACIDS AND  
OXIDIZING MATERIALS.  
Hazardous Combustion: PRODUCT WILL PRODUCE HCl, NITROGEN OXIDES UNDER  
FIRE CONDITIONS.

-----  
VII. SPILL OR LEAK PROCEDURES  
-----

Spill or Leak Proc: DIKE AND CONTAIN, ABSORB IN INERT MATERIAL SUCH  
AS CLAY, SAND OR SAWDUST. PLACE MATERIAL IN A  
CHEMICAL WASTE CONTAINER FOR PROPER DISPOSAL.  
WASH AREA WITH WATER, DETERGENT AND AMMONIA,  
ABSORB AND PLACE IN WASTE CONTAINER.  
Waste Disposal Method: THIS MATERIAL MUST BE DISPOSED OF ACCORDING TO  
FEDERAL, STATE, OR LOCAL PROCEDURES UNDER THE  
RESOURCE CONSERVATION AND RECOVERY ACT.

-----  
VIII. SPECIAL PROTECTION INFORMATION  
-----

Respiration: WHEN RESPIRATORY PROTECTION IS REQUIRED, USE  
NIOSH/MSHA AIR-PURIFYING RESPIRATOR.  
Ventilation: LOCAL EXHAUST SUFFICIENT.  
Gloves: IMPERVIOUS  
Eyes: CHEMICAL SPLASH GOGGLES.  
Other: EMERGENCY SHOWER, EYE WASH STATION, IMPERVIOUS  
APRON AND FOOTWEAR.

-----  
IX. SPECIAL PRECAUTIONS  
-----

Special precaution: KEEP OUT OF REACH OF CHILDREN. DO NOT STORE  
WITH FOOD, FEED, OR OTHER MATERIAL TO BE USED  
OR CONSUMED BY HUMANS OR ANIMALS. DO NOT  
CONTAMINATE WATER SUPPLIES, LAKES, STREAMS, OR  
PONDS. DO NOT APPLY WHEN WEATHER CONDITIONS  
FAVOR DRIFT FROM TARGET AREA, AS THIS PRODUCT  
MAY INJURE COTTON, BEANS, VEGETABLES, CERTAIN  
LEGUMES AND ORNAMENTALS. DO NOT STORE NEAR  
SEEDS, FERTILIZERS, INSECTICIDES OR FUNGICIDES.  
Other precaution: A) RCRA HAZARDOUS WASTE NUMBER:----- DO16 ,U240  
B) SARA TITLE III, SECTION 313:----- NOT LISTED

Material Safety Data Sheet

Effective Date: 07-JAN-2000  
Product: 2,4-D AMINE 4

C) SARA THRESHOLD PLANNING QUANTITY: NOT LISTED  
D) CERCLA REPORTABLE QUANTITY:----- 100 LB.  
E) CALIFORNIA PROPOSITION 65:----- NOT LISTED  
F) LISTED UNDER MASSACHUSETTS AND NEW JERSEY  
STATE RIGHT-TO-KNOW LAWS.

X. SHIPPING INFORMATION

Shipping name: \*\*\*"RQ"ENVIRONMENTALLY HAZARDOUS SUBSTANCES,  
LIQUID, N.O.S., (2,4-D DMA ACID), 9, UN3082, PG  
III "ERG GUIDE #171"

Hazard Class: CLASS 9  
Identification No: UN3082  
Labels Required: CLASS 9  
Placarding: UN3082

Freight Class: COMPOUNDS, WEED KILLING, LIQUIDS, NOIBN(NMFC  
ITEM 50320, CLASS 60)

Chemical Name	Equivalent R.Q.
---------------	-----------------

2,4-DICHLOROPHENOXYACETIC ACID	100 LB(45.4 KG)
--------------------------------	-----------------

\*\*TRANSPORTATION NOTE: NOT REGULATED BY  
DOT UNLESS IN A  
SINGLE CONTAINER OF 25 GALLONS OR MORE.

XI. GENERAL PRODUCT INFORMATION

National Fire Protection Association Rating:

(Rating level: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

Health: 3

Fire: 1

Reactivity: 1

S.A.R.A. Title III Hazard Classification: (Yes/No)

Immediate (Acute) Health: Y  
Sudden Release of pressure: N  
Reactive: N

Delayed (Chronic) Health: Y  
Fire: N

Mail inquiries to: 225 Schilling Blvd., Suite 300 Collierville, TN 38017  
Helena Chemical Company believes that the data contained herein is factual.  
This data is not to be taken as a warranty or representation of legal  
responsibility. It is offered solely for your consideration, investigation  
and verification.