

Helena Chemical Company
PH: 901-761-0050
CHEMTREC: 800-424-9300

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Material Safety Data Sheet

Effective Date: 16-JAN-2000

Product: BARRAGE HF

I. IDENTIFICATION

Chemical Name: 2-ETHYLHEXYL ESTER OF 2,4-D ACETIC ACID
Chemical Family: CHLORINATED PHENOXY HERBICIDE
Formula: NOT APPLICABLE, FORMULATED MIXTURE
Synonyms: NONE
CAS Number: 25168-26-7
EPA Number: 5905-529

II. PHYSICAL DATA

Boiling Point: >300 DEGREES F.
Freezing Point: <32 DEGREES F.
Spec Gravity: 1.090 GMS/CC
Vapor Pressure: NOT DETERMINED
Vapor Density: NOT DETERMINED
Solubility: EMULSIFIABLE
Volatiles: <0.1%
Evaporation: NOT DETERMINED
Melting Point: NOT APPLICABLE
Appearance: LT. BROWN LIQUID, PETRO. DISTILLATE ODOR

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
2-ETHYLHEXYL ESTER OF 2,4-DICHLOROPHENOXYACETIC ACID (EQUIVALENT TO 51.8% 2,4-D ACID, OR 4.7 LBS/GAL)		78.10	10 MG/M3	SKIN & EYE IRRITANT
INERT INGREDIENTS (INCLUDING PETROLEUM DISTILLATES)		21.90	100 PPM (AIR)	SKIN & EYE IRRITANT

IV. FIRE AND EXPLOSION HAZARD

Flash Point: >200 DEGREES F. (TCC)
Autoignition Temp: 850 DEGREES F.
Flammable Limit: NOT DETERMINED
Extinguishing Media: USE DRY CHEMICALS OR CARBON DIOXIDE. USE OF WATER OR FOAM SHOULD BE DISCOURAGED TO PREVENT SPREADING OF MATERIAL.
Special Fire Fight Proc: USE WATER TO KEEP FIRE EXPOSED CONTAINERS COOL. SELF-CONTAINED BREATHING APPARATUS SHOULD BE PROVIDED FOR FIREFIGHTERS IN BUILDINGS OR CONFINED AREAS.

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Fire and Expl Hazard: MAY LIBERATE HYDROGEN CHLORIDE (AN ACIDIC GAS)
WHEN BURNED.

V. HEALTH HAZARD

Carcinogen Information: DID NOT CAUSE CANCER IN ANIMAL STUDIES.

ACUTE EFFECTS OF OVER EXPOSURE

Swallowing: SINGLE DOSE ORAL TOXICITY IS LOW. ORAL LD50
(MALE RAT)1492 MG/KG. MAY CAUSE
GASTROINTESTINAL IRRITATION OR ULCERATION.
Skin Absorption: LD50 (RABBIT) 2871 MG/KG. SINGLE PROLONGED
SKIN EXPOSURE MAY RESULT IN MATERIAL BEING
ABSORBED IN HARMFUL AMOUNTS.
Inhalation: SINGLE EXPOSURE TO VAPORS IS NOT LIKELY TO BE
HAZARDOUS.
Skin contact: PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE
SKIN IRRITATION.
Eye Contact: MAY CAUSE SEVERE IRRITATION WITH CORNEA INJURY,
WHICH MAY RESULT IN PERMANENT VISION
IMPAIRMENT.
Chronic Effects: EXCESSIVE EXPOSURE MAY CAUSE LIVER, KIDNEY,
GASTROINTESTINAL AND MUSCULAR EFFECTS. SIGNS
AND SYMPTOMS OF EXCESSIVE EXPOSURE MAY BE
NAUSEA, VOMITING, ABNOMINAL CRAMPS AND
DIARRHEA.
Other Hazard: HIGH DIETARY LEVELS CAUSED TOXIC EFFECTS
(WEIGHT AND VIABILITY REDUCTION) IN RATS ON A
REPRODUCTION TEST. RESULT OF MUTAGENICITY TESTS
IN ANIMALS HAVE BEEN INCONCLUSIVE.

EMERGENCY AND FIRST AID PROCEDURES

Swallowing: DILUTE BY GIVING 1 OR 2 GLASSES OF WATER TO
DRINK. DO NOT INDUCE VOMITING. CALL A PHYSICIAN
OR POISON CONTROL CENTER IMMEDIATELY.
Skin: WASH CONTAMINATED SKIN WITH SOAP AND WATER.
OBTAIN MEDICAL ATTENTION IF IRRITATION
DEVELOPS. LAUNDRER CLOTHING BEFORE RE-USE.
Inhalation: MOVE VICTIM TO FRESH AIR. IF STOPPED BREATHING,
GIVE ARTIFICIAL RESPIRATION. OBTAIN MEDICAL
ATTENTION IMMEDIATELY.
Eyes: FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR AT
LEAST 15 MINUTES, HOLDING EYES OPEN. OBTAIN
MEDICAL ATTENTION IMMEDIATELY.
Notes to Physician: NO SPECIFIC ANTIDOTE. GIVE SUPPORTIVE CARE.
TREATMENT BASED ON JUDGEMENT OF THE PHYSICIAN

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IN RESPONSE TO REACTIONS OF THE PATIENT.

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

Stability: Stable
Conditions to Avoid: DO NOT EXPOSE TO HEAT OR FLAME.
Polymerization: Will Not Occur
Conditions to Avoid: NONE CURRENTLY KNOWN.
Incompatibility material: NONE CURRENTLY KNOWN.
Hazardous Combustion: MAY PRODUCE HYDROGEN CHLORIDE (AN ACIDIC GAS)
UNDER FIRE CONDITIONS.

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

Spill or Leak Proc: CONTAIN SPILLS. REMOVE AS MUCH MATERIAL AS
POSSIBLE INCLUDING CONTAMINATED SOIL. "DO NOT
USE VACUUM TRUCK". USE ABSORBENT MATERIAL.
TRANSFER TO RECOVERY DRUMS FOR PROPER DISPOSAL.
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: USE APPROVED NIOSH/MSHA AIR PURIFYING
RESPIRATOR IF ATMOSPHERE CONTAINS LEVELS ABOVE
TLV.
Ventilation: GOOD GENERAL VENTILATION IS SUFFICIENT.
Gloves: IMPERVIOUS
Eyes: CHEMICAL WORKERS GOGGLES.
Other: 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.
Other precaution: A) RCRA HAZARDOUS WASTE NUMBER:----- U240 -
2,4-D SALTS AND ESTERS

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B) SARA TITLE III, SECTION 313:----- 2,4-D
(78.1%) 01/01/87
C) SARA THRESHOLD PLANNING QUANTITY: 10,000
LBS/MIXTURE
D) CERCLA REPORTABLE QUANTITY:----- 21 GALLON
E) 49 CFR 172.101, APPENDIX A:----- HAZARDOUS
SUBSTANCE
F) 49 CFR 172.101, APPENDIX B:----- MARINE
POLLUTANT.

X. SHIPPING INFORMATION

Shipping name: RQ ENVIRONMENTALLY HAZARDOUS SUBSTANCES,
LIQUID, N.O.S., (2,4-D ACID ESTER), 9, UN3082,
PG III "ERG GUIDE #171"
Hazard Class: CLASS 9
Identification No: UN3082
Labels Required: CLASS 9
Placarding: NO PLACARD REQUIRED
Freight Class: COMPOUND, WEED KILLING, LIQUID, NOIBN(NMFC ITEM
50320, CLASS 60)

Chemical Name Equivalent R.Q.

2,4-DICHLOROPHOXYACETIC ACID ESTER 100 LBS(45.4 KG)

*TRANSPORTATION NOTE; NOT REGULATED BY
DOT
IN SINGLE CONTAINERS LESS THAN 21
GALLONS.

XI. GENERAL PRODUCT INFORMATION

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

Health: 2 Fire: 2 Reactivity: 0

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

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

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