FILE FOLDER

DESCRIPTION ON TAB:

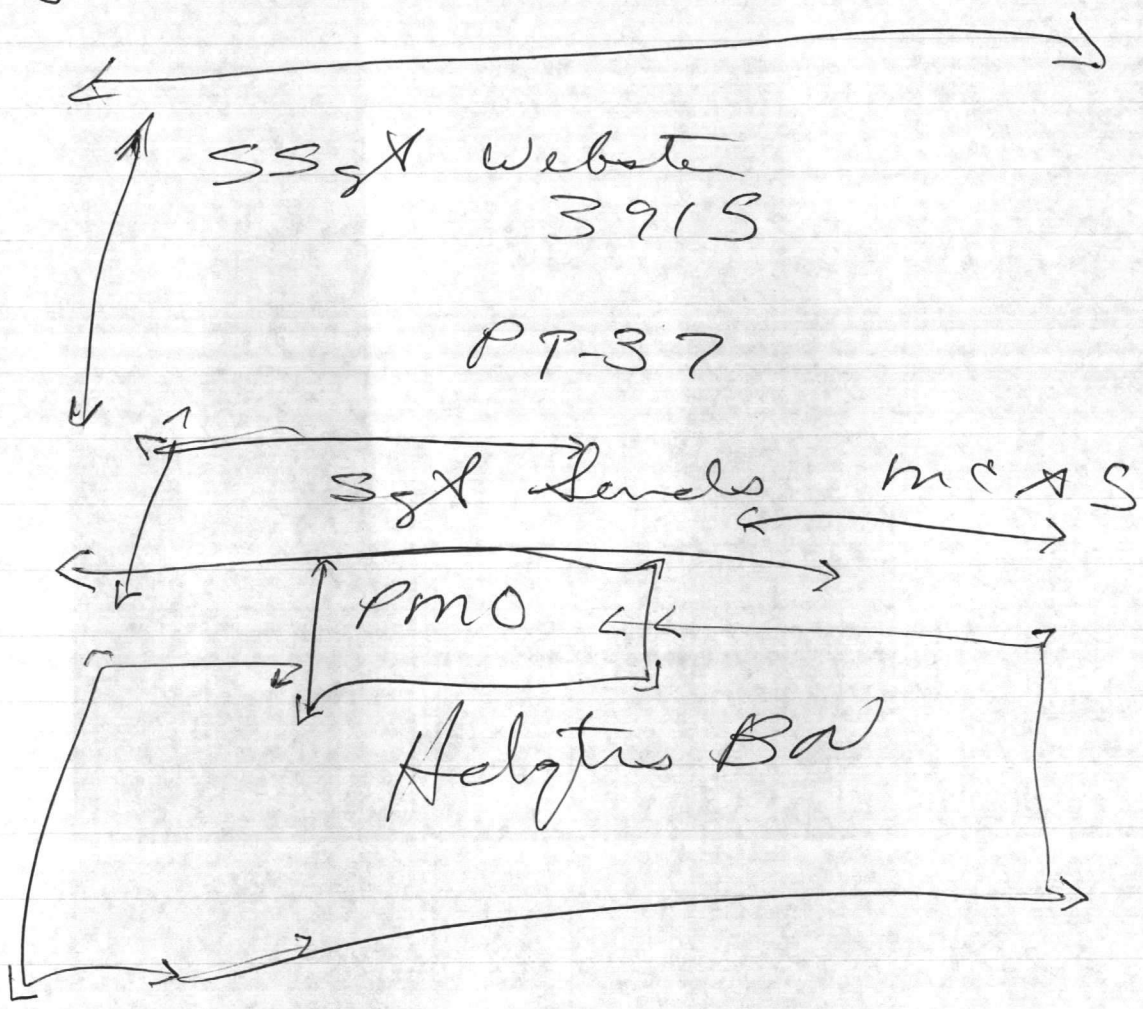
Military working Dogs DiP

☒ **Outside/inside of actual folder did not contain hand written information**

☐ **Outside/inside of actual folder did contain hand written information**
***Scanned as next image**

Confidential Records Management, Inc.
New Bern, NC
1-888-622-4425
9/08

Dog container — not Heb



Tom - sent
- ltr to public works

< Dermatone III - dog dip

- wanted to pipe dog dip to sanitary sewer,
- aberdeen - Dr. adj PH to 9/10 let stand 1 to 2 days.

3915 S Byl Webster

20 June 88
to Sam Hy.

Odors Flea Off Shampoo SPA Ry
Vet-Derm Flea + Tick SPA Ry
Pro rute SPA Ry
Vestal LPH SPA Ry

The Dermatron3 Saga

Save all these papers

8-21-87 went to PT-37 met Cpl Dalpe, Sgt King (X3915) Military Work Dogs and Jimmy Kellum, Arsenal Vector (X5761) and Mr Beasley, BMO, P&E (X5794) and Mr Sawyer, BMO. They wanted to know if they could get approval for a drain to be installed in their Dog Dip Tank. Previously, they were digging out contents with a bucket and then pouring it into dog pen drains which go to HP WWTP.

I told them I would let them know! Little did I know how long it would take and how many people I would have to talk to in order to find out proper disposal for Dermatron3.

10-8-87 Finally got answer from U.S. Army Environmental Hygiene Agency, Said to adjust pH to 9-10, let stand 1-2 days, then discharge to Sanitary Sewer.

$$
\begin{array}{r}
24 \\
\times\ 18 \\
\hline
192 \\
24 \\
\hline
432 \\
400 \\
\hline
832
\end{array}
$$

The Dermatron3 Saga

8-21-87 went to PT-37 met Cpl Dalpe, Sgt King (x3915) Military Work Dogs and Jimmy Kellum, Vincent Nestor (x5761) and Mr Beasley, BMO, P&E (x5794) and Mr Sawyer, BMO. They wanted to know if they could get approval for a drain to be installed in their Dog Dip Tank. Previously, they were dipping out contents with a bucket and then pouring it into dog pen drain which goes to HP WWTP.

I told them I would let them know! Little did I know how long it would take and how many people I would have to talk to in order to find out proper disposal for Dermatron3.

10-8-87 Finally got answer from U.S. Army. Environmental Hygiene Agency, Said to adjust pH to 9-10, let stand 1-2 days, then discharge to Sanitary Sewer.

24

18

192

24

432

400

832

28 Sep 87 0830

Mark Henderson. referred me to DEM – Water Quality

DEM – Water Quality: 0840

733-5083

Randy Jones: gave him name of dog dip: he or his offic will call me back.

Call wilmington Regional Office :: 0855

Preston Howard (919) 256-4161

Ted Bush in staff meeting

Ted Bush – will check. 1040

& will call him after lunch.

1405

Call Pest Cont. Bd. Dq Ag. (919) 733-3556

will specify disposal.

Bill McClellan 1415 733-7366

= out q office He will return call

6850 00 285 8012

Item Number 4316 62

What Kind of Solvent (PD680)

is D001 Haz waste ID No.

0830, 29 Sep 87

Mr Bill McClellan 733-7366

NOT IN, will Return my call.

Returned call at 0900

Mr. McClellan (not a chemist)

1. H.W. - strictly speaking, dispose of as H.W.
2. Use a systemic pesticide i.e. Pro Spot - No wastes
3. empty onto grassy area after its toxicity / persistence is very low.

J.

Ms. Gladney 1-800-255-4456 (Kansas City)

Stability data - in concrete vat. 40 da.

disposal - regs vary

best bet. call NC Pest. Board

Spray on soil - 30 days - gone.

Dr. Hillman

Dr. Jim Arends, NCSU
Ext Entomologist
737-2703

N. C. Pesticide
dept for EPA reg. #'s.
Susan Sheets
733-3556

8-24-87

Ms. Betty Frazelle
Librarian x4078
Do not have C.A.S. Registry #'s

ECU Allied Health Sciences Library
(96)919-757-6961

"...Toxic pollutants referred to in Table 1 of Committee Print Numbered 95-30 of the Committee on Public Works and Transportation of the House of Representatives

43542
3483
47025

22458
21084
43,542
1.08
3483.36

2240
1900
= 1.

1757
12
3514
1757
21,084

6000
3760
2240

1.4
19/28.00
19
90
76
140

Marlo Aycock HQMC AV 227-1890

DoD Who you gonna call?

Armed Forces Pest Mgt. Board

Bob Wardwell, AFPMB

(202) 427-5365 Defense Pest Mgt. Ext. Service

NOT IN He will call me after 1 pm today.

—•— He called at 1240 pm ~~today~~.

Army Environ Hygiene Agency

Aberdeen Prov. Ground.

- Ken Olds? Pesticide Hotline
  Ed Evans? AV 584-4131

If they need help, call Bob Wardwell

✔

Ken Olds called. 1545 Dr. Tarsey (EPA) working on it.

Computer search.

— ~~Called~~ Ken Olds called me 10-7-87 @ 1335

I was gone to MCAS-H with Glenee Smith.

— I returned his call on 10-8-87 @ 1300.

AV 584-3773

Answer: to hydrolyze Trichlorfon

Add NaOH to pH 9-10 (or anything to pH 9-10)

Set 1 or 2 days

Discharge to Sanitary Sewer.

– Ray Krueger Asst. Disposal Section, EPA

Use of {KOH / NaOH} would produce heat

---

1) Go to self service. See what bases are available for pH adjustment.
2) Get sample from the vat at PT-37. Check pH while there.
3) Return to lab and determine qty's necessary for pH adjustment.

[antidote for NaOH ingestion is 1% acetic acid]

"major knowledge"

OPNAV 5216/144A (Rev. 8-81)
S/N 0107-LF-052-2320

DEPARTMENT OF THE NAVY
Memorandum

DATE: 17 Nov 87

FROM: Director, NREAD

TO: BMO

SUBJ: Dog Dip Tank and its contents of Dermaton 3 (Trademark) at PT-37

REF: a) 21 Aug 1987 meeting at PT-37 among Military Working Dog Handlers, Insect Vector ~~personnel~~ representative, BMAINT P&E personnel, and NREAD representative

b) 29 Sep 1987 telephone conversation between Mr. Bill McClellan, NCDA, Pest Control Board and Mr. Tom Barker, NREAD

c) 30 Oct 1987 telephone conversation between Mr. Ken Olds, U.S. Army Environmental Hygiene Agency (USAEHA) and Mr. Tom Barker, NREAD

1.

OPNAV 5216/144A (Rev. 8-81)
S/N 0107-LF-052-2320

DEPARTMENT OF THE NAVY

Memorandum

DATE:

FROM:

TO:

SUBJ:

REF:

1. ~~DDR~~ NREAD personnel have reviewed the BMAINT P&E work request from PMO for the dog dip tank to be plumbed to the sanitary sewer. This task was done because of the unknown effect of ~~dog dip~~ waste. Dermaton 3 (Trademark) ectoparasiticide on the wastewater treatment plant. ~~Best~~ Proper disposal of Dermaton 3 (Trademark) to the sanitary sewer is presented in paragraph (3). The work request is discussed in paragraph (2). Alternatives to ~~this~~ Dermaton 3 (Trademark) are presented in paragraph (4). It is requested that BMO review this report and forward it to PMO.

~~it, initially~~

2. NREAD would concur with the work request asking for the dog dip tank to be plumbed to the sanitary sewer, if the following conditions are met. ~~so long as~~ PMD personnel must adhere to the disposal method outlined in paragraphs (3). Any use of This tank for another product chemical would ~~require~~ NREAD ~~request~~ void this concurrence.

3. Information on proper pretreatment and disposal of Dermaton 3 (Trademark) was gained through reference (c). Mr. Ken Olds, USAEHA, quoted Mr. Ray Kruger of the Pesticide Disposal Section of the US EPA on an acceptable method. It is to add dilute sodium hydroxide or other suitable base slowly to the vat while stirring the contents. Enough base must be added to bring the pH up to between 9 and 10. (This hydrolyzes the active ingredient, chlorfenvinphos, to newly chemically-inert compounds.) After the solution has been left to stand for one to two days, it may be discharged to the sanitary sewer. This discharge should be coordinated with Utilities personnel so that it will coincide with a period of high flow to the Halawa WWTP.

4. An Alternative to the use of Dermaton 3 (Trademark) was suggested by Mr. Bill McClellan (reference b). He mentioned use of systemic pesticides such as Pro Spot (Trademark) or Pro Ban (Trademark). Use of these would generate no wastes. As with the use of any product, their effectiveness and safety would need to be evaluated by the Veterinary Service, MCBCL.

5. Point of Contact is Ms. Elizabeth Beltz, extension 5977.

MATERIAL SAFETY DATA SHEET

SECTION I. IDENTIFICATION OF PRODUCT

PRODUCT/TRADE NAMES: Dermaton® (Supona) 3

REGISTRANT: Coopers Animal Health Inc.
(formerly Wellcome Animal Health, Inc.)
2000 South 11th Street
Kansas City, Kansas 66103

EMERGENCY TELEPHONE: Monday thru Friday 7:30 a.m. to 5:00 p.m. call (913) 321-1070 or (800) 255-4456. After hours call (816) 471-4080 or (800) 821-2554.

INGREDIENTS:

Active	
2-chloro-1-(2,4-dichlorophenyl) vinyl diethyl phosphate	12.25%
Inert	87.75%
	100.00%

SHIPPING PAPER DESCRIPTION: Insecticides or Insect Repellents, O/T Agr., N.O.I., item 102130 Sub.

SECTION II. HAZARDOUS COMPONENTS OF MIXTURE

ACTIVE INGREDIENT: 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate

INERT INGREDIENTS: Mixture of petroleum hydrocarbons

SECTION III. PRODUCT PHYSICAL DATA

PROPERTY

DESCRIPTION: A yellow-brown free flowing liquid with a characteristic odor

SOLUBILITY IN WATER: Emulsifies with water

SPECIFIC GRAVITY (H_2O = 1): 0.879 @ 25°C

SECTION IV. FIRE AND EXPLOSION DATA

FLAMMABILITY (Flashpoint): 105°F

EXTINGUISHING MEDIA: Foam, dry chemical, water spray or mist or CO_2

SPECIAL FIREFIGHTING PROCEDURES: Wear full protection clothing and gear to prevent all body contact. Use air supplied breathing equipment for enclosed areas. Cool exposed containers with water spray. Avoid breathing vapors or fumes. Avoid spread of contamination.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS: Toxic product vapor concentration can be produced. At high temperature, product decomposition can release hydrogen chloride. Do not mix or store with strong oxidants like liquid chlorine or concentrated oxygen. Prolonged contact with metal powder may produce explosive H_2 gas.

SECTION V. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: For current threshold limit values of various ingredients, refer to 29 CFR Part 1910 Subpart Z "Toxic and Hazardous Substances."

EFFECTS OF OVEREXPOSURE: Overexposure can cause dizziness, headache, unconsciousness, blurred vision, weakness, nausea, cramps, diarrhea, pain or tightness in chest, sweating, pupil constrictions, increased salivation, tearfulness, breathing difficulty.

EMERGENCY FIRST AID PROCEDURES: Remove person from further exposure. Get medical help immediately.

IF SWALLOWED: CONSULT A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. NOTE: ATROPINE IS ANTIDOTAL. If swallowed, gastric lavage is indicated. DO NOT INDUCE VOMITING, unless under medical supervision. Vomiting petroleum distillates can produce aspiration pneumonia. If vomiting occurs spontaneously, DO NOT let victim lie down. DO NOT allow any material to enter the airway.

IF ON SKIN: Remove contaminated clothing and immediately wash skin thoroughly with soap and water.

IF IN EYES: Immediately flush eyes with running water for at least 10 minutes. Get medical attention if irritation persists.

IF INHALED: Remove victim to fresh air. Artificial respiration or administration of oxygen may be lifesaving.

NOTE TO PHYSICIAN: 2-chloro-1-(2,4 dichlorophenyl) vinyl diethyl phosphate is a cholinesterase inhibitor and treatment of poisoning should include atropine.

SECTION VI. REACTIVITY DATA

STABILITY: Stable.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATABILITY (Materials to Avoid): Strong basis and strong oxidants like liquid chlorine, concentrated oxygen, sodium or calcium hypochlorite. Oxygen under pressure, metal powders (Al, Mg, Zn, etc.).

HAZARDOUS DECOMPOSITION PRODUCTS: Fumes smoke and carbon monoxide in cases of incomplete combustion. Hydrogen chloride may be liberated on thermal degredation. Phosgene or hydrogen gas may also be liberated during combustion.

CONDITIONS TO AVOID: Contact with flame or hot, glowing surfaces may produce toxic gasses (phosgene, HCL).

SECTION VII. SPILLS AND LEAKS

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wear approved respirator plus appropriate protective clothing and gear to prevent all body contact. Remove all ignition sources. Keep people away. Stop leak if it can be done safely. Recover free liquid by adding absorbant (clay, earth, sawdust, etc.) to spill area. Shovel waste into a suitable container for disposal. Avoid breathing vapors. Open all windows and doors. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, water courses, or extensive land areas.

DECONTAMINATION: Wash spill area with plenty of water and collect washings with a suitable absorbent. Shovel waste washings into a suitable container. Repeat as needed until spill area is clean.

PRODUCT DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

SECTION VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type): Use a hydrocarbon vapor canister or supplied air respiratory protection in confined or enclosed spaces.

VENTILATION: Local exhaust - Face velocity > 60 fpm: Special Use only with adequate (equivalent to outdoors) ventilation: Mechanical (General) Use explosive proof equipment: Other - no smoking or open lights.

PROTECTIVE CLOTHING: Impervious rubber gloves and other protective clothing is required to prevent any body contact.

EYE PROTECTION: Wear goggles, safety glasses or face shield when eye contact may occur.

SECTION IX. SPECIAL PRECAUTIONS OR OTHER COMMENTS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed when not in use. Store in cool, dry place away from heat and open flame.

OTHER PRECAUTIONS: May be fatal if swallowed, inhaled or absorbed through the skin. Do not breath spray mist. Causes eye irritation. Contaminated clothing and protective devices must be decontaminated after each use. Destroy contaminated leather articles including shoes. Wash skin thoroughly with soap and water after handling.

* * * * * * * *

NOTICE: The information herein is given in good faith but is furnished without warranty or guarantee of any kind. Liability is expressly disclaimed for any loss or injury arising out of the use of this information or the use of any materials designated.

$48.00

FARM CHEMICALS HANDBOOK '87

FERTILIZER DICTIONARY

BUYERS' GUIDE

PESTICIDE DICTIONARY

APPLICATION EQUIPMENT

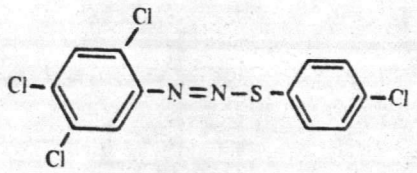
FERTILIZER TRADE NAMES

Chlorfensulphide

CHEMICAL NAME: 4-Chlorophenyl 2,4,5-trichlorophenylazo sulphide.

COMMON NAMES: *chlorfensulphide* (ISO), *CPAS* (MAF).

ACTION: Acaricide.



Chlorfensulphide

Chlorfenvinphos

CAS: 470-90-6

CHEMICAL NAME: 2-Chloro-1-(2,4-dichlorophenyl)-vinyl diethylphosphate, or *O,O*-diethyl-*O*-1-(2',4'-dichloro-phenyl)-2-chlorovinylphosphate.

COMMON NAME: *chlorfenvinphos* (BSI, ISO).

OTHER NAMES: *Apachlor**, *Birlane**, *Birlane 24**, *C 8949*, *CFV**, *CGA 26351*, *Compound 4072*, *Sapecron**, *Steladone*, *SD 7859** (Shell Chemical Co.), *Supona**, *Vinylphate**.

ACTION: Insecticide, acaricide.

CHEMICAL PROPERTIES: Technical material is an amber liquid with boiling range of 167-170° C at 0.5 mm Hg.

TOXICITY: Acute oral LD_{50} (rat), 10-39 mg/kg; acute dermal LD_{50} (rabbit), 400-4700 mg/kg.

SOLUBILITY: In water 145 ppm at 23° C; miscible with organic solvents.

SIGNAL WORD: DANGER, POISON.

ANTIDOTE: Atropine combined with oxime preparations.

HANDLING AND STORAGE CAUTIONS: Poisonous if swallowed, inhaled, or absorbed through skin. Do not contaminate feed or foodstuffs. Do not get in eyes, skin, or clothing. Do not breathe spray, keep container closed. Use with adequate ventilation and protective clothing. Wear face mask and neoprene apron when unloading/handling containers containing powder, dust, or granular formulations. Wash thoroughly after handling. Do not drink any alcoholic beverages before or during spraying since alcohol promotes absorption of organic phosphates.

APPLICATION: *Apachlor** as preharvest insecticide for control of various root-flies in root-vegetables, Brussels sprouts and onions; as foliar for Colorado beetle and other pests on potatoes and leafhoppers on rice and for control of ectoparasites on livestock. *Birlane** as a soil insecticide for root maggots rootworms, and cutworms. As a foliage insecticide for Colorado beetle, citrus scale and rice stem borers. As a seed dressing for wheat bulb fly. *Birlane 24** controls root flies, phorid and sciarid fly larvae; also fruit fly on maize and sweet corn, wheat bulb fly in winter wheat. *Birlane 10% Granules** for control of root flies. *Birlane Liquid Seed Treatment** for control of wheat bulb fly in winter wheat.

*Supona** for the control of ticks, flies, lice, and mites on cattle and blowfly, lice, ked, and itchmite on sheep. Fleas and ticks on dogs.

CGA 26351, *Steladone** for cattle dip and sprays. Not marketed in U.S.

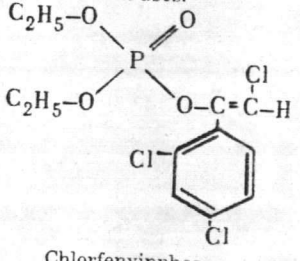
FORMULATIONS: Emulsifiable concentrates, wettable powder, granules, seed treatments.

Specialized emulsifiable concentrates of *Supona** for cattle and sheep dipping/spraying.

*Birlane 24**, *Birlane Granules **, *Birlane Liquid Seed Treatment**, emulsifiable concentrate 24%.

C8949, *CGA 26351*, *Sapecron**, not marketed in U.S.

*Steladone**, *Birlane** and *Supona** not registerd for crop uses in U.S., but for some animal health uses.



Chlorfenvinphos

BP: Ciba-Geigy Ltd. (Switzerland) *(C 8949, CGA 26351, Sapecron*, Steladone*)*

KenoGard VT AB (Sweden) *(Apachlor*)*

Shell International Chemical Co., Ltd. (London) *(Birlane*, Supona*)*

Sintesul S.A. (Brazil)

Chlorflurazole (Discontinued by FBC Ltd.)

CHEMICAL NAME: 4,5-Dichloro-2-trifluoromethylbenzimidazole.

COMMON NAME: *chlorflurazole*

ACTION: Herbicide.

Chlorflurecol — see Chlorflurenol.

Chlorflurecol-methyl ester — see Chlorflurenol.

Chlorflurenol

CHEMICAL NAME: Methyl 9-hydroxyfluorene-9-carboxylate.

COMMON NAMES: *chlorflurecol-methyl ester* (BSI), *chlorflurenol-methyl ester* (ISO).

OTHER NAMES: *CF 125**, *Curbistain* CF 125* (Uniroyal), *Multiprop* CF 125*; *Maintain* CF 125)*; growth regulator.

ACTION: Plant growth retardant.

CHEMICAL PROPERTIES: White crystals, mp 152° C. Solubility in water low (at 25° C), soluble in benzene, and alcohol.

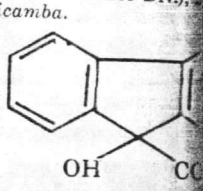
TOXICITY: Acute oral LD_{50} (rat) [illegible]

SIGNAL WORD: CAUTION, *(CF*

APPLICATION: *CF 125**: Retardant for broadleaf weeds and vines. Recommended for regular mowing and trimming areas around fences and guard rails, around signposts, rights-of-way, median strips, and [illegible] banding to inhibit tree growth. *Curbiset** in all-female cultivars of pickling cucumbers in U.S. for *Curbiset**. *Multiprop** induces flowering material on pineapple plants. S[illegible]

FORMULATIONS: *CF 125** and *M[illegible]* trate 12.5%, containing 8.8% methyl 9-hydroxyfluorene-9-carboxylate, 2.1% methyl-9-hydroxyfluorene-9-carboxylate, 1.6% methyl-9-hydroxyfluorene-9-carboxylate. *Curbiset**: Emulsifiable concentrate 5%, containing 3.5% methyl 9-hydroxyfluorene-9-carboxylate, 0.8% methyl-9-hydroxyfluorene-9-carboxylate.

COMBINATION: *Broad Spectrum* (Andersons, Lawn Fertilizer Div.); [illegible] *flurecol* and *dicamba*.



Chlorflurecol-methyl

BP: Celamerck GmbH & Co. KG (F[illegible] *(CF 125*, Curbiset*, Multiprop**

Chlorfonium — see Phosfon*.

Chloridazon — see Pyradex; Pyramin.

Chloride of Lime

CHEMICAL NAME: Calcium hypochlorite.

CHEMICAL FORMULA: $CaOCl_2$.

OTHER NAME: Bleaching powder.

ACTION: Fungicide; bactericide.

CHEMICAL PROPERTIES: Bactericidal chlorine slowly released.

Chlorimuron ethyl — see Classic*.

Chlorinat — see Carbyne*.

Chlorinated Camphene — see Toxaphene.

Chlorinated Hydrocarbon

A group of pesticides which contain chlorine. See *Chlorinated Organic Pesticides*.

Chlorinated Organic Insecticides and Acaricides

The organo-chlorine chemicals form one of the major insecticide families. This class in the insecticide group has related pharmacological effects, and EPA has established tolerances of these related chemicals for residues in or on crops. The following chemicals and their metabolites are included:

Aldrin
BHC (benzene hexachloride)
Chlorbenside
Chlordane
Chlorobenzilate
DDT
Dicofol
Dieldrin
Endosulfan

Chlor Kil* — see Chlordane.

Chlormephos

CHEMICAL NAME: *S*-Chlormethyl [illegible] dithioate.

COMMON NAME: *chlormephos* (BSI, 18[illegible]

OTHER NAMES: *Dotan**.

DISCONTINUED NAMES: *MC 2188**.

ACTION: Insecticide.

8-21-87

Cpl Dalpe } 3915
Sgt King }

Dermaton 3
from Base Vet at T.T.

2-Chloro-1 (2,4-dichlorophenyl)
vinyl diethyl phosphate ~~12.8~~ 12.25%

Inert ingred. 87.75%
(contains methylene chloride) 100.0%

EPA Reg. No. 59-203

1 gal. containers

4 blocks x 2 and stairs
4 blocks high

Coopers Animal Health Inc.
Kansas City, Mo 64108
1-800-325-6037

64
6
20
12
56

MSDS 1800 255 4456 / Judy Gladney
Dr Salisbury

150 gal vat
mix 10#/gal water use it for 40-60 days

4
28
2.5
140
56
70.0

Mr Beasley BMO P&E 5794
Mr Sawyer BMO
Jimmy Kellum Insect V. 5761

Inside sealed with sealer

7.5 #/gal X 28 #3 2.8' x 2 x 5 = 28 ft³ 7.5 gal/ft3

5.6
5

38
-12
26" x 58"

32" D x W x L

pH - Super Trump (straight stuff) is 13.4

0.3 mL Straight Super Trump + 100 mL Dematron 3 → pH 9-10

25 mL Super Trump + 1000 mL Distilled Water

pH is 12.5

1.5 mL titrated in 100 mL Dematron, final pH is 9.6

2.0 mL " 10.0

Straight

$\frac{1.5}{10.0} = \frac{X}{1000}$

$100X = 1.5(1000)$

$X = \frac{1.5(1000)}{100}$

$X = 1.5 \times 10 = 15$

$\frac{15\ mL}{1\ L} \times \frac{3.785\ L}{gal}$

$3.785 \times 15 = 56.775$ mL/gal.

$\frac{56.8\ mL/gal}{100\ gal} = 5680$ mL dilute

$\frac{3\ mL}{1\ L} \times 378.5\ L = 1135.5$ mL $\approx$ 1,135 mL Straight

517
533

100 gal x 3.785 L/gal = 378.5 L

Say 375 L

$\frac{0.6\,mL}{0.460\,L} = \frac{X}{375\,L}$ | $\frac{11\,mL}{0.5\,L} = \frac{X}{375\,L}$

$0.460\,L\ X = (0.6\,mL)(375\,L)$ $\quad X = \frac{(11\,mL)(375\,L)}{0.5\,L}$

~~488~~ $= \frac{225}{.460}$

$X = 8{,}250\,mL = 8.25\,L$

$= 489$

350
400
5-50
0
0
13

500mL
.01
5.00mL

375
11
375
375
4125

8250.
0.5 | 4125.0
40
12
10
25
25

$KOH + HCl = KCl + HOH$

Room temperature

Dermatm	titrant	VOL/TITRANT Req'd/mL	pH (target 9-10)
500 mL	5N NaOH	0.6	~~9.5~~ 10.1
460 mL	0.1 N NaOH	10.6	9.6

50mL KOH + 60mL 6N HCl

?

extreme action
Grease cutter
~~Degreaser~~ 793001 C008424 4gal./box $31.29/box
NA 1760 Compound, cleaning, liquid
(Caustic soda and glycol ethers)
skin, inhale)

SuperTrump 793001 C008941 4gal/box $28.85/box
12740 UN1760 Corrosive liquid, N.O.S.
(Potassium Hydroxide NA 1719)

$40 roll wire
1 post
anchor bolts
roll 6 mil plastic

39.95
750
5x150

150/5 = 750 ft²

200 − 172 = 28

200/750 = .26

6 × 6 = 36