US EPA ARCHIVE DOCUMENT

#586 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY CASWELL FILE

4-28-75

SUBJECT: Naled (1,2-dibromo-2,2-dichloroethyl dimethyl phosphate

DATE: APR 28 1975

FROM: TB

TO: PM

Pesticide Petition No: 5F1614

Petitioner: Chevron Chemical Co.

Tolerance Requested: 0.05 ppm in or on almonds (nuts)
0.05 ppm in or on almond hulls

Pealted Petitions: 330, 7F0532, 8F0975, 1F1078, 1E1100, 1F1111

Established Tolerances: 40 CFR 180.215 (Dibrom)

10 parts per million in or on forage grasses and legumes, as defined in §180.34 (f).

3 parts per million in or on celery, collards, grapefruit, kale, lemons, oranges, spinach, Swiss chard, tangerines, turnip tops.

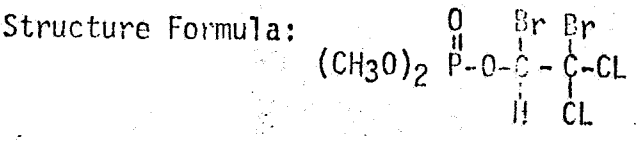
1 part per million in or on brussels sprouts, cabbage, cauliflower, lettuce, strawberries.

0.5 part per million in or on beans (dry and succulent), cottonseed, cucumbers, eggplants, grapes, hops, melons, mushrooms, peaches, peas (succulent), peppers, pumpkins, rice, safflower seed, sugar beets (roots and tops), summer squash, tomatoes, walnuts, and winter squash.

0.5 part per million in or on all raw agricultural commodities (except those otherwise listed in this section from use of the insecticide for area pest (mosquito and fly) control.

0.05 part per million (negligible residue) in eggs; meat, fat, and meat by-products of cattle, goats, hogs, horses, poultry, and sheep; and milk.

Structure Formula:



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EPA Form 1320-6 (Rev. 6-72)

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Synonyms-dibrom, RE-4,355, ENT 24,988

Melting Point-26°C

Physical State-pure compound-solid, technical compound-liquid

Boiling Point-110°C at 0.5 mm

Solubility-insoluble in water, slightly soluble in aliphatic solvents and highly soluble in aromatic solvents.

Background Information

Acute Toxicity

Rat Oral LD_{50}-Tech-	420 mg/kg
Rat Oral LD_{50}-Dibrom LVC-10	1422 mg/kg
Rabbit Dermal LD_{50}-Tech	1100 mg/kg
Rabbit Dermal LD_{50}-Dibrom 14	1005 mg/kg
Rabbit Dermal LD_{50}-Dibrom LVC-10	394 mg/kg
Rabbit Inhalation LC_{50}-Dibrom LVC-10-	15 to 20 mg/L
Rabbit Inhalation LC_{16}-Dibrom 14-	0.17 mg/L
Rabbit Inhalation LC_{16}-10% Dibrom 14	3.3 mg/L
Rabbit Dermal Irritation-Dibrom LVC-10-	produced maximum irritation
Rabbit Dermal Irritation-Dibrom 14 conc.-	produced severe irritation
Rabbit Eye Irritation-Dibrom LVC-10-	produced slight to severe irritation, corneal opacity in rabbits at day 7.
Rabbit Eye Irritation-Dibrom 14 Conc.-	produced severe irritation and complete opacity

Subacute Toxicity

Dog ChE NEL	10 ppm
Rat ChE NEL	20 ppm
5 Week Rat Inhalation-Tech	NEL <50 ppm
5 Week Guinea Pig Inhalation-Tech	NEL <50 ppm

Chronic Toxicity

2 Year Rat Feeding	NEL 100 ppm
2 Year Dog Feeding	NEL 300 ppm
3 Generation Rat Reproduction	NEL 25 ppm (highest fed)

Special Toxicity

Human Patch-Tech primary skin irritant

Present Action

No additional toxicity data were submitted with this petition. During past reviews of this chemical, TB expressed concern that additional tolerances may increase bromine milk residues. Subsequent bromide milk residue data has established a policy. The policy is contained in an "Inorganic Bromide residue" memo Oct 11, 1972. The new residue information shows average milk residues are below the ADI of 8 ppm and consequently the proposed new uses for bromide containing pesticides can be sanctioned as long as the Br. contribution of the proposed use plus the average Br. background in milk does not exceed the ADI.

TB considers the proposed usage to be toxicologically insignificant and also will not exceed the ADI.

Robert D. Coberly, Biologist
Toxicology Branch
Registration Division

cc: Branch Reading File
RCoberly:ir: 4/28/75
Initial O.E. Paynter