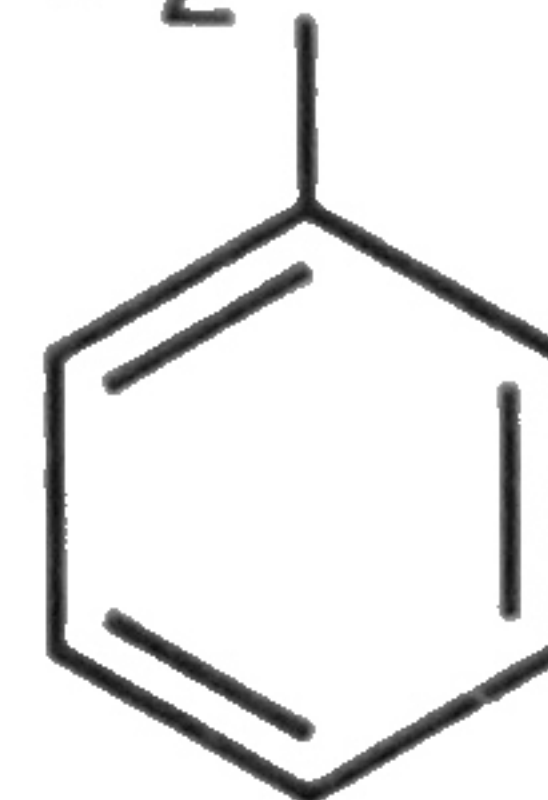


is slowly broken down to 2,6-dichlorobenzoic acid. Half-life of dichlobenil in soil may vary between 1 and 6 months depending on soil type. See K. I. Beynon and A. N. Wright *Residue Rev.* 1972, **43**, 23; A. Verloop *ibid.* 1972, **43**, 55.

204 dichlofluanid

Fungicide

N-trihalomethylthio



NOMENCLATURE

Common name dichlofluanid (BSI, E-ISO), dichlofluanide ((f) F-ISO), dichlorfluanid (JMAF), no name (USA).

IUPAC name *N*-dichlorofluoromethylthio-*N'*,*N'*-dimethyl-*N*-phenylsulfamide.

C.A. name 1,1-dichloro-*N*-[(dimethylamino)sulfonyl]-1-fluoro-*N*-phenylmethane=sulfenamide. **CAS RN** [1085-98-9] **Development code** Bayer 47 531; KUE 13032c.

PHYSICO-CHEMICAL PROPERTIES

Mol. wt. 333.2 **Mol. formula** $\text{C}_9\text{H}_{11}\text{Cl}_2\text{FN}_2\text{O}_2\text{S}_2$

Form Colourless powder. **M.p.** 106 °C **V.p.** 0.021 mPa (20 °C) **K_{ow}** 5000

Solubility In water 1.3 mg/l (20 °C). In dichloromethane > 200, toluene 145, xylene 70, methanol 15, isopropanol 10.8, hexane 2.6 (all in g/l, 20 °C). **Stability** Decomposed by alkaline media; DT₅₀ (22 °C) > 15 d (pH 4), > 18 h (pH 7), < 10 min (pH 9), and by polysulfides. Sensitive to light.

COMMERCIALISATION

History Fungicide reported by H. W. K. Müller (*Erwerbsobstbau*, 1964, **6**, 67); it is a member of the aryl(dichlorofluoromethylthio) compounds described by E. Kühle (*Angew. Chem.*, 1964, **76**, 807). Introduced by Bayer AG. **Patents** DE 1193498

Manufacturer Bayer.

APPLICATIONS

Mode of action Basic contact fungicide with protective action. **Uses** Control of scab, brown rot and storage diseases in apples and pears; *Botrytis* spp., *Alternaria* spp., *Clasterosporium* spp., downy mildews, and other fungal diseases on vines, pome fruit, stone fruit, berry fruit, strawberries, hops, tomatoes, cucurbits, vegetables, ornamentals, and conifer seedbeds. Suppressive effect on spider and rust mites on fruit, grapes and other crops, with only slight effect on beneficial mites. Recommended in IPM programmes. **Phytotoxicity** Some stone fruits and ornamentals may suffer slight injury. **Formulation type** WP; DP; WG; Fumigant (smoke). **Compatibility** Compatible with wettable-powder insecticides and foliar fertilisers, but incompatible with liquid