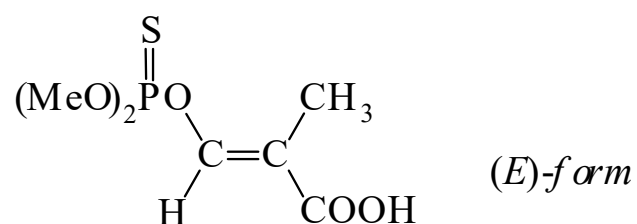




>>Entry Name: 3-[(Dimethoxyphosphinothioyl)oxy]-2-methyl-2-propenoic acid, 9CI  
Synonym(s): 3-Hydroxy-2-methacrylic acid *O*-ester with *O,O*-dimethyl phosphorothioate, 8CI



Related CAS Registry Numbers(s): 30864-28-9

Molecular Formula: C<sub>6</sub>H<sub>11</sub>O<sub>5</sub>PS

Molecular Weight: 226.19

Accurate Mass: 226.006482

Percentage Composition: C 31.86%; H 4.90%; O 35.37%; P 13.69%; S 14.18%

>>Derivative: Ph ester

Synonym(s): Phenyl 3-[(dimethoxyphosphinothioyl)oxy]-2-methyl-2-propenoate

CAS Registry Number: 38289-60-0

Type of Compound Code(s): AC4140

Molecular Formula: C<sub>12</sub>H<sub>15</sub>O<sub>5</sub>PS

Molecular Weight: 302.287

Accurate Mass: 302.037782

Percentage Composition: C 47.68%; H 5.00%; O 26.46%; P 10.25%; S 10.61%

Physical Description: Liq.

Refractive Index: n<sub>D</sub><sup>23</sup> 1.5277

>>Variant: (*E*)-form

Molecular Formula: C<sub>6</sub>H<sub>11</sub>O<sub>5</sub>PS

Molecular Weight: 226.19

Accurate Mass: 226.006482

Percentage Composition: C 31.86%; H 4.90%; O 35.37%; P 13.69%; S 14.18%

>>Derivative: Me ester

Synonym(s): Methyl 3-[(dimethoxyphosphinothioyl)oxy]-2-methyl-2-propenoate. Methacrifos, BSI, ISO. Damfin

CAS Registry Number: 62610-77-9

Type of Compound Code(s): AC4140

Molecular Formula: C<sub>7</sub>H<sub>13</sub>O<sub>5</sub>PS

Molecular Weight: 240.216

Accurate Mass: 240.022132

Percentage Composition: C 35.00%; H 5.45%; O 33.30%; P 12.89%; S 13.35%

Use/Importance: Insecticide and acaricide with vapour, contact, and stomach action

Physical Description: Liq.

Boiling Point: Bp<sub>0.01</sub> 90°

Hazard & Toxicity: LD<sub>50</sub> (rat, orl) 678 mg/kg

#### References:

*Ger. Pat.*, 1972, 2 147 588; *CA*, **77**, 34698, (*esters*)

*Pesticide Manual*, 9th edn., 1991, No. 8060

*Agrochemicals Handbook*, 3rd edn., *Royal Society of Chemistry*, 1992, A818