

Subject Index

- Acceptable daily intake (see also ADI) 2 ff.
- Azinphosethyl and cancer 23
- and reproduction 23
 - ChE depression 22, 23
 - metabolism 22, 23
 - no-effect levels 23
 - residues in food 23
 - technical 22
 - toxicology 23
 - uses 22
- Azinphosmethyl, ADI 6, 23
- mass spectra 84
 - metabolism 23
 - no-effect levels 23
 - residues in food 24
 - structure 128
 - toxicology 23, 24
 - uses 23
- Benomyl** 11
- ADI 5
 - hydrolysis 5
 - metabolism 5
 - residues in food 9
 - uses 5
- Bromo dichlorophenyl methyl**
phenylphosphonate, mass spectra 177
- Bromo dichlorophenyl methyl**
phenylphosphonothioate, mass spectra
178
- Bromophenylphosphonic acid**, mass spectra
167
- Bromophos**, ADI 6, 31
- and cancer 31
 - and reproduction 31
 - and spermatogenesis 31
 - ChE depression 31
 - metabolism 31
 - neurotoxicity 31
 - potentiation 31
 - residues in food 32
 - toxicology 32
 - uses 31
- Bromophos-ethyl**, ADI 6, 32
- and cancer 32
 - and reproduction 32
 - and teratogenicity 32
 - ChE depression 32
 - metabolism 32
 - neurotoxicity 32
 - no-effect levels 32
 - potentiation 32
 - residues in food 32, 33
 - toxicology 33
 - uses 32
- Camphechlor** 40
- Cancer, OP compounds and carbamates** (see
also specific compounds) 11 ff.
- Carbamates, mode of action** 4
- toxicological evaluation (see also
specific compounds) 1 ff.
- Carbaryl** 64
- ADI 6, 10
 - and illness 10
 - and reproduction 10
 - metabolism 10
 - no-effect levels 10
 - residue reduction 10, 11
 - residues in food 11
 - toxicology 11
 - uses 9
- Carbendazim**, see **MBC**
- Carbofuran** 64
- Carbophenothion**, ADI 6, 24
- and reproduction 24
 - ChE depression 24
 - metabolism 24
 - no-effect level 24
 - potentiation 24
 - residues in food 24
 - toxicology 24
 - uses 24
- Chlordecone** 47, 54 ff.
- and cancer 57
 - solubility 48
 - toxicology 56
- Chlorfenvinphos** 64
- ADI 6, 15
 - and reproduction 15
 - ChE depression 15
 - metabolism 15
 - no-effect levels 15
 - residues in food 15
 - technical 15
 - toxicology 15
 - uses 15
- Chlorferron** 34

- Chlorpropham, ADI 12
 ———— and cancer 12
 ———— toxicology 12
 ———— uses 12
- Chlorpyrifos, ADI 6, 33
 ———— and reproduction 33
 ———— and teratogenicity 33
 ———— ChE depression 33
 ———— metabolism 33
 ———— neurotoxicity 33
 ———— no-effect levels 33
 ———— potentiation 33
 ———— residues in food 33
 ———— toxicology 33
 ———— uses 33
- Chlorthion, toxicology 33
- Cholinesterase as criterion for toxicity 2 ff.
 ———— as guide to exposure, not
 intoxication 3
 ———— in blood, determination 4
 ———— levels and toxic symptoms 3
- Cholinesterase-inhibiting substances (see also
 specific compounds) 2 ff.
- Comfrey 71
- Coumaphos, ADI 6, 34
 ———— ChE depression 34
 ———— mass spectra 84
 ———— metabolism 34
 ———— no-effect levels 34
 ———— residues in food 34
 ———— structure 128
 ———— toxicology 34
 ———— uses 33
- Crufomate, ADI 6, 21
 ———— ChE depression 21
 ———— metabolism 21
 ———— no-effect levels 21
 ———— residues in food 21
 ———— toxicology 21
 ———— uses 21
- Cyclophosphamide, mass spectra 81
 ———— structure 128
- DDT** 28, 40, 46, 48, 64
 ———— and fish 67
 ———— half-life in soil 59
- Demeton 25, 26
 ———— ADI 6
- Demeton compounds, ADI 34
 ———— compounds and reproduction 34
 ———— compounds and teratogenicity 34
 ———— compounds, ChE depression 34
 ———— compounds, metabolism 34
 ———— compounds, neurotoxicity 34
 ———— compounds, no-effect levels 34
 ———— compounds, potentiation 34
 ———— compounds, residues in food 35
 ———— compounds, toxicology 35
 ———— compounds, uses 34
- Demeton-methyl, mass spectra 84
 ———— structure 129
- Demeton-S 26
- Despirol (see also Kelevan) 49 ff., 69, 70
- Diazinon, ADI 6, 35
 ———— and reproduction 35
 ———— and teratogenicity 35
 ———— mass spectra 81
 ———— metabolism 35
 ———— no-effect levels 35
 ———— residue reduction 35
 ———— residues in food 35, 36
 ———— structure 129
 ———— toxicology 36
 ———— uses 35
- Diazoxon, mass spectra 99
 ———— structure 129
- Dichlorvos, ADI 6, 16
 ———— aircraft disinfection 16
 ———— ChE depression 16
 ———— from trichlorfon 19
 ———— mass spectra 90, 99
 ———— metabolism 16
 ———— residue reduction 16
 ———— residues in food 16
 ———— resin strips 15, 16
 ———— structure 129
 ———— uses 15
- Dieldrin and fish 67
- (Diethoxyphosphinothioyl)acetamide,
 mass spectra 162
- Diethyl methylphenyl phosphorothioates,
 mass spectra 172, 173
- Diethyl methylphosphorothioate, mass
 spectra 156
- Diethyl nitrophenyl phosphorothioates, mass
 spectra 174, 175
- Diethyl phenyl phosphorothioates, mass
 spectra 168–170
- Diethyl phosphoramidothioates, mass
 spectra 149, 150
- Diisopropyl methyl phosphorothioates, mass
 spectra 164, 165
- Diisopropyl phosphorothioic acid, mass
 spectra 160
- Dimethoate 27, 38, 39
 ———— ADI 6, 25
 ———— ChE depression 24
 ———— metabolism 25
 ———— no-effect levels 25
 ———— omethoate from 39
 ———— residues in food 25
 ———— toxicology 25
 ———— uses 24
- Dimethoate oxon, mass spectra 114

- (Dimethoxyphosphinothioyl)acetamide,
mass spectra 152
- Dimethyl acetylphosphoramidothioates,
mass spectra 154, 155
- Dimethyl dimethylphosphoramidothioates,
mass spectra 147, 148
- Dimethyl ethylphosphonothioates, mass
spectra 140
- Dimethyl methoxyphenylphosphorothioate,
mass spectra 173
- Dimethyl phosphoramidothioates, mass
spectra 136, 137
- Dioxathion, ADI 6, 25
—— and reproduction 25
—— ChE depression 25
—— mass spectra 87
—— no-effect levels 25
—— residue reduction 25
—— residues in foods 25
—— structure 129
—— technical 25
—— thermal stability 79
—— toxicology 25
—— uses 25
- Dioxin in trichloronat 20
- Disulfoton 30
—— ADI 6, 26
—— and reproduction 26
—— and teratogenicity 26
—— ChE depression 26
—— metabolism 26
—— neurotoxicity 26
—— no-effect levels 26
—— potentiation 26
—— residue reduction 26
—— residues in food 26
—— residue stability 26
—— technical 26
—— toxicology 26
—— uses 25
- Di-Syston 30
- Diuron 12
- Dyfonate, mass spectra 81
—— structure 129
- Endothal 12
- Endrin 40
—— and fish 67
- EPN 39
- EPN oxon, mass spectra 85, 176
—— oxon, structure 130
- Ethion, ADI 6, 27
—— and reproduction 26
—— and teratogenicity 26
—— ChE depression 26
—— metabolism 27
—— neurotoxicity 26
—— no-effect levels 27
—— residues in food 27
—— toxicology 27
—— uses 26
- (Ethoxyethylthiophosphinyl)acetamide,
mass spectra 163
- Ethyl ethyl methylphosphonamidothioate,
mass spectra 144
- Ethyl nitrophenyl phenylphosphonate, mass
spectra 176
- Fenamiphos, ADI 6, 22
—— ChE depression 21, 22
—— metabolism 21, 22
—— no-effect levels 22
—— residues in food 22
—— toxicology 22
—— uses 21
- Fenchlorphos 17
—— ADI 6, 36
—— and reproduction 36
—— ChE depression 36
—— metabolism 36
—— no-effect levels 36
—— phytotoxicity 36
—— residues in food 36
—— toxicology 36
—— uses 36
- Fenitrothion, ADI 7, 37
—— and cancer 37
—— and reproduction 37
—— and teratogenicity 37
—— ChE depression 36, 37
—— mass spectra 84
—— metabolism 36, 37
—— neurotoxicity 37
—— no-effect levels 37
—— residues in food 37
—— structure 130
—— technical 36
—— toxicology 37
—— uses 36
- Fensulfthion, ADI 7, 37
—— and reproduction 37
—— and teratogenicity 37
—— metabolism 37
—— neurotoxicity 37
—— no-effect levels 37
—— potentiation 37
—— residue reduction 37
—— residues in foods 37, 38
—— technical 37
—— toxicology 38
—— uses 37
- Fenthion, ADI 7, 38
—— ChE depression 38
—— metabolism 38

- no-effect levels 38
- residues in food 38
- toxicology 38
- uses 38
- Formothion, ADI** 7, 27
 - and cancer 27
 - ChE depression 27
 - metabolism 27
 - no-effect levels 27
 - residues in food 27, 28
 - technical 27
 - toxicology 28
 - uses 27
- Isopropyl methyl ethylphosphonodithioate, mass spectra** 161
- Isopropylphosphondiamidodithioate, mass spectra** 135
- Kelevan** 45 ff.
 - action on skin and mucous membranes 57
 - and beneficial insects 64 ff.
 - and birds 67
 - and cancer 57
 - and eggs 67
 - and fish 67
 - and honeybees 64
 - and mammals 68
 - and reproduction 57
 - characterization 73
 - chemistry 46
 - degradation in soil 57 ff.
 - effects on animals 49 ff.
 - excretion 54, 56
 - extraction 72
 - formulations and analysis 49, 71
 - GLC 72 ff.
 - half-life in soil 58, 59
 - in agricultural products 68 ff.
 - in animals 64 ff.
 - in carrots 69
 - in environment 57 ff.
 - in grains 69
 - in plants 62 ff.
 - in potatoes 62–66, 68
 - in rape 69
 - insecticidal action 48
 - in soil 61
 - in sugarbeets 69
 - in water 61
 - metabolism 52 ff.
 - minimum intervals 71
 - no-effect levels 52, 56, 57
 - photoproducts 48
 - phytotoxicity 62
 - properties 47
 - residue analysis 72
 - solubility 47, 48
 - stability 48, 72
 - structure 46
 - synthesis 46
 - technical 47
 - tolerances 71
 - toxicology 49 ff.
 - toxic symptoms 51, 56
 - vapor pressure 47
 - volatility 64
- Kelevan acid** 48 ff.
 - acid, toxicity 57
- Keponone**, see Chlordecone
- Leptophos, mass spectra** 80, 84, 178
 - metabolism 19, 20
 - residue reduction 20
 - residues in food 20
 - structure 130
 - technical 19
 - toxicology and neurotoxicity 20
 - uses 19
- Leptophos oxon, mass spectra** 177
 - oxon, structure 130
- Lindane** 48, 64
 - and fish 67
- Malaoxon, structure** 130
- Malathion** 33, 37
 - ADI 7, 28
 - ChE depression 28
 - mass spectra 81, 84
 - metabolism 28
 - no-effect levels 28
 - residue reduction 28
 - residues in food 28
 - structure 131
 - toxicology 28
 - uses 28
- Mancozeb** 49, 51
- Mass spectra, correlations between derived ions and structure** 88, 89
 - spectra, formation of P-containing ions 87, 92, 98
 - spectra fragmentation, principles 81 ff.
 - spectra, fragmentations 92–95, 99, 114, 116, 121
 - spectra, intensity of ion 82
 - spectra, OP compounds (see also specific compounds) 77 ff.
 - spectra, OP esters with P–N bond 119 ff.
 - spectra, phosphates 99 ff.
 - spectra, phosphinates 91 ff.
 - spectra, phosphonates 94 ff.

- spectra, phosphorodithioates 115 ff.
- spectra, phosphorothiolates 109 ff.
- spectra, phosphorothionates 115 ff.
- spectra, rearrangements and isomerizations 84, 93, 98, 109, 117, 119
- spectra, reproducibility 80
- MBC 14
 - ADI 11
 - and cancer 11
 - and reproduction 11
 - metabolism 11
 - residues in food 11, 12
 - toxicology 11, 12
 - uses 11
- Methidathion, ADI 7, 29
 - and cancer 29
 - and reproduction 29
 - and teratogenicity 29
 - ChE depression 29
 - metabolism 29
 - neurotoxicity 29
 - no-effect levels 29
 - potentiation 29
 - residue reduction 29
 - residues in food 29, 30
 - technical 29
 - toxicology 30
 - uses 29
- (Methoxymethylthiophosphinyl)acetamide, mass spectra 153
- Methoxyphenyl dimethylphosphate, mass spectra 166
- Methyl butylphosphonamidithioates, mass spectra 145, 146
- Methyl diethylphosphinate, mass spectra 134
- Methyl diethylphosphinothioate, mass spectra 137
- Methyl ethyl methylphosphonamidithioate, mass spectra 138
- Methyl ethylphosphonamidithioates, mass spectra 135, 136
- Methyl isopropylphosphonamidithioates, mass spectra 138, 139
- Methyl methylphosphonamidithioate, mass spectra 133
- Methyl parathion 33, 39, 40
 - parathion, ADI 7, 40
 - parathion and reproduction 40
 - parathion and teratogenicity 40
 - parathion, ChE depression 40
 - parathion, mass spectra 85, 116
 - parathion, metabolism 40
 - parathion, residues in food 40
 - parathion, toxicology 40
 - parathion, uses 40
- Methyl phosphordiamidithioates, mass spectra 133, 134
- Methyl propylphosphonamidithioate, mass spectra 139
- Methyl Trithion, mass spectra 85
- Mevinphos, ADI 7, 17
 - and cancer 17
 - and reproduction 17
 - and teratogenicity 17
 - mass spectra 99
 - metabolism 17
 - no-effect levels 17
 - residues in food 17
 - structure 131
 - technical 16, 17
 - toxicology 17
 - uses 16
- Molecular radical ion, intensity 78 ff.
- Monitor, mass spectra 90, 121, 132, 137
 - structure 131
- Monocrotophos, ADI 7, 17
 - and cotton foliage 17
 - metabolism 17
 - no-effect levels 17
 - potentiation 17
 - residue reduction 17
 - residues in food and beer 17, 18
 - toxicology 17, 18
 - uses 17
- Naled, mass spectra 99
 - structure 131
- Omethoate 27
 - ADI 7, 39
 - and reproduction 39
 - from dimethoate 39
 - metabolism 39
 - no-effect levels 39
 - residues in food 39
 - toxicology 39
 - uses 38
- Organophosphorus compounds and
 - aliesterases 4
 - compounds, diagnosis of intoxication 4
 - compounds, mass spectra (see also specific compounds) 77 ff.
 - compounds, mass spectral fragmentation 81 ff.
 - compounds, metabolites in urine 4
 - compounds, mode of action (see also specific compounds) 4
 - compounds, reproducibility of mass spectra 80
 - compounds, therapy of poisoning 4
 - compounds, thermal stability (see also specific compounds) 79

- compounds, toxicological evaluation
(see also specific compounds) 1 ff.
- Orthene, mass spectra 90, 155
- structure 131
- Oxydemeton-methyl, residues in food 35

- Paraoxon, mass spectra 99
- structure 131
- Parathion 64
- ADI 7, 39
- ChE depression 39
- mass spectra 84, 85
- metabolism 39
- residues in foods 40
- structure 132
- toxicology 39, 40
- uses 39
- Phenylphosphonic acid, mass spectra 143
- Phosalone, ADI 7, 30
- and reproduction 30
- and teratogenicity 30
- metabolism 30
- neurotoxicity 30
- no-effect levels 30
- potentiation 30
- residues in food 30
- toxicology 30
- uses 30
- Phosphamidon, ADI 7, 18
- mass spectra 99
- metabolism 18
- no-effect levels 18
- residues in food 18
- structure 132
- toxicology 18
- uses 18
- Phosphates, mass spectra 99 ff.
- Phosphinates, mass spectra 91 ff.
- Phosphonates, mass spectra 94 ff.
- Phosphorodithioates, mass spectra 115 ff.
- Phosphorothiolates, mass spectra 109 ff.
- Phosphorothionates, mass spectra 115 ff.
- Phosphorus bond energies 83
- Pirimiphos-methyl, ADI 7, 41
- and reproduction 41
- and teratogenicity 41
- ChE depression 41
- metabolism 41
- no-effect levels 41
- residue reduction 41
- residues in food 41
- toxicology 41
- uses 40
- Potentiation 4, 30
- Propham, ADI 12
- and cancer 12
- toxicology 12
- uses 12
- Propoxur, ADI 7, 13
- and cancer 13
- and reproduction 13
- and teratogenicity 13
- ChE depression 3, 13
- hydrolysis 13
- metabolism 13
- no-effect levels 13
- residues 13, 14
- safe use 14
- technical 13
- toxicology 13, 14
- uses 12

- Ronnel, mass spectra 84

- TEPP, structure 132
- thermal stability 81
- Thiometon, ADI 7, 31
- and reproduction 30
- ChE depression 31
- metabolism 30
- no-effect levels 31
- residues in food 31
- toxicology 31
- uses 30
- Thiophanate-methyl 11
- ADI 7, 14
- and cancer 14
- and reproduction 14
- metabolism 14
- no-effect levels 14
- residues in food 15
- toxicology 14, 15
- uses 14
- TOCP, neurotoxicity 20, 22
- Toxaphene 40
- Toxicological criteria, insecticides 2 ff.
- Trichlorfon, ADI 7, 19
- and cancer 19
- and spermatogenesis 19
- dichlorvos from 19
- hydrolysis 18
- mass spectra 99
- metabolism 19
- no-effect levels 19
- residue reduction 19
- residues in food 19
- structure 132
- toxicology 19
- uses 18
- Trichloronat and cancer 20
- dioxin in 20
- metabolism 20

- residue reduction 21
- residues in food 20, 21
- technical 20
- toxicology 20, 21
- uses 20
- Triethyl phosphate, mass spectra and mass spectral fragmentations 86, 151
- Triethyl phosphorothioates, mass spectra 158, 159
- Trimethyl phosphorothioates, mass spectra 141, 142
- Trimethyl phosphorotrithioate, mass spectra 157
- Trithion, mass spectra 85
- Vamidothion and reproduction 42**
 - ChE depression 42
 - metabolism 42
 - no-effect levels 42
 - residues in food 42
 - toxicology 42
 - uses 42