

# WES Review 2018

*Selection of hazardous chemicals  
to be considered for addition to  
or removal from the  
workplace exposure standards list*

*Australian workplace exposure standards  
and advisory notations*

Safe Work Australia (2018)



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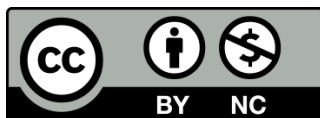
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# Selection of hazardous chemicals to be considered for addition to or removal from the Workplace Exposure Standards list

This document records the outcomes of the third part of the methodology for a regulatory framework for recommending and reviewing health-based workplace exposure standards and notations.

## Background

A methodology has been developed to update the composition of the [Workplace Exposure Standards for Airborne Contaminants list](#) (the WES list), including to make recommendations on and an approach to determine:

- which chemicals should be considered to be added to the WES list, and
- which chemicals should be considered for removal from the WES list

## Method

The selection of chemicals considered to be added to the WES list and those considered for removal from the WES list has been undertaken using the [Criteria for the selection of hazardous chemicals to be considered for addition to or removal from the Workplace Exposure Standards list](#).

## Outcomes

### Chemicals to be considered to be added to the WES list

Based on the criteria for considering addition of a chemical to the list, the following chemicals were identified (n=78):

Chemical	CAS No.	Chemical	CAS No.
1,2,3-Trimethylbenzene	526-73-8	Gallium arsenide	1303-00-0
1,2,4-Trimethylbenzene	95-63-6	$\gamma$ -Butyrolactone	96-48-0
1,3,5-Trimethylbenzene	108-67-8	Glyoxal	107-22-2
1,3-Dioxolane	646-06-0	Hard metals (containing cobalt and tungsten carbide)	7440-48-4; 12070-12-1
1,4-Dichloro-2-butene	764-41-0	Hexachlorobenzene	118-74-1
1-Bromopropane	106-94-5	Hexahydrophthalic Anhydride	85-42-7
1H-Benzotriazole	95-14-7	Hexamethyl phosphoramidate	680-31-9
2,4,5-Trimethylaniline	137-17-7	Hydroxyacetic acid butyl ester	7397-62-8
2,4-Pentanedione	123-54-6	Isopentane (2-methyl butane)	78-78-4
2-Ethylhexanoic acid	149-57-5	Man-made mineral fibres (fibrous dust)	

Chemical	CAS No.	Chemical	CAS No.
2-Ethylhexanol	104-76-7	Ethylene thiourea	96-45-7
2-Hydroxypropyl acrylate	25584-83-2	Flour Dust (cereal)	
2-Methylbutyl acetate	624-41-9	m-Cresol	108-39-4
3,3'-Dichlorobenzidine	91-94-1	Methyl Vinyl Ketone	78-94-4
4-Vinyl Cyclohexene	100-40-3	Natural Rubber Latex	9006-04-6
5-Nitro-o-toluidine	99-55-8	Neopentane (2,2-Dimethylpropane)	463-82-1
Benzidine	92-87-5	Nickel, insoluble	
Benzoyl chloride	98-88-4	N-Nitrosodimethylamine	62-75-9
Bisphenol A diglycidyl ether	1675-54-3	N-Phenyl-2-naphthylamine	135-88-6
Bisphenol-A	80-05-7	N-Vinyl-2-pyrrolidone	88-12-0
But-2-yne-1,4-diol	110-65-6	o-Anisidine	90-04-0
Chloromethyl methyl ether	107-30-2	o-Cresol	95-48-7
Chrysene	218-01-9	o-Tolidine	119-93-7
Cyanide salts		p-Cresol	106-44-5
Diacetyl	431-03-8	Peracetic acid	79-21-0
1,2-Dibromo ethane	106-93-4	2,3-Pentanedione (Acetyl propionyl)	600-14-6
Dichloroacetic acid	79-43-6	Perfluorooctanoic acid (PFOA) and its inorganic salts	335-67-1
Diesel engine emissions		Phenyl isocyanate	103-71-9
Diethyl sulfate	64-67-5	Piperazine and salts	110-85-0
Diethylene glycol monobutyl ether	112-34-5	Polyvinyl chloride	9002-86-2
Diglycidyl resorcinol ether	101-90-6	Polycyclic aromatic hydrocarbon (PAH) mixture when containing benzo[a]pyrene	
Dimethyl carbomoyl chloride	79-44-7	Propane sulfone	1120-71-4
Dimethyl sulfide	75-18-3	Terephthalic Acid	100-21-0
Dimethylsulfamoyl chloride	13360-57-1	Tetrafluoroethylene	116-14-3
DMA	87-62-7	Toluene-2,4-diisocyanate	91-08-7
EDTA	60-00-4	Urethane	51-79-6

Chemical	CAS No.	Chemical	CAS No.
Ethyl Cyanoacrylate	7085-85-0	Vinylidene Fluoride	75-38-7
Ethylene	74-85-1	White spirit Type 3	64742-48-9

Search performed: 3 August 2017

### Chemicals to be considered for removal from the WES list

Based on the criteria for considering the removal of a chemical from the list, the following chemicals were identified (n=47):

Chemical	CAS No.	Chemical	CAS No.
1-Chloro-1-nitropropane	600-25-9	Methyl demeton	8022-00-2
ANTU	86-88-4	Nitrapyrin	1929-82-4
Bismuth telluride	1304-82-1	Nitrogen trifluoride	7783-54-2
Bismuth telluride, Se-doped	1304-82-1	n-Propyl nitrate	627-13-4
Bromine pentafluoride	7789-30-2	o-Chlorobenzylidene malononitrile	2698-41-1
Carbonyl fluoride	353-50-4	o-Chlorostyrene	2039-87-4
Chlorinated diphenyl oxide	31242-93-0	Oxygen difluoride	7783-41-7
Chlorine trifluoride	7790-91-2	Pentachloronaphthalene	1321-64-8
Chlorodiphenyl 42% chlorine (PCBs)	53469-21-9	Perchloromethyl mercaptan	594-42-3
Chlorodiphenyl 54% chlorine (PCBs)	11097-69-1	Perchloryl fluoride	7616-94-6
Crufomate	299-86-5	Phenylphosphine	638-21-1
Decaborane	17702-41-9	sec-Butyl acetate	105-46-4
Demeton	8065-48-3	Selenium hexafluoride (as Se)	7783-79-1
Diborane	19287-45-7	Sesone	136-78-7
Dioxathion	78-34-2	Stibine	7803-52-3
Emery (dust)	1302-74-5	Sulfotep	3689-24-5
EPN	2104-64-5	Sulfur pentafluoride	5714-22-7
Ferrovandium dust	12604-58-9	Sulfuryl fluoride	2699-79-8
Fonofos	944-22-9	TEPP (tetraethyl pyrophosphate)	107-49-3
Germanium tetrahydride	7782-65-2	Tetrachloronaphthalene	1335-88-2
Hafnium	7440-58-6	Tetranitromethane	509-14-8

Chemical	CAS No.	Chemical	CAS No.
Hexachloronaphthalene	1335-87-1	Trichloronaphthalene	1321-65-9
Hexafluoroacetone	684-16-2	Yttrium, metal & compounds	7440-65-5
Hydrogen selenide	7783-07-5		

Search performed: 3 August 2017

## Next steps

External consultation will be sought to confirm the set of chemicals that will be recommended for addition to the WES list. Data available from trusted domestic and international sources<sup>1</sup> will be used to recommend workplace exposure standards and notations for these chemicals<sup>2</sup>.

The group of chemicals recommended for removal from the WES list will be examined by an internal Agency panel to assess whether there are justifiable reasons for retaining any of the chemicals on the mandatory WES list. External consultation will then be sought to confirm the set of chemicals that should be recommended for removal from the WES list.

Any chemical and associated workplace exposure standards removed from the WES list will be retained in a repository maintained by Safe Work Australia. The workplace exposure standards for these chemicals will not be actively maintained or updated as part of the scheduled reviews.

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<sup>1</sup> [Selection of sources for workplace exposure standards, notations and supporting data](#)

<sup>2</sup> [WES Methodology: Recommending health-based workplace exposure standards and notations](#)