**Use of Uncertainty Factors by the European Commission Scientific Committee of Occupational Exposure Limits: A follow up**

Linda Schenk & Gunnar Johanson

Supplementary material

**Table S1 Longstanding SCOEL members (>15 years, counting also part of a calendar year as one) as determined by meeting notes (1995-2001) and commission decisions (2002- present).**

|  |  |  |  |
| --- | --- | --- | --- |
| **Last name** | **Country/Nationality** | **Start** | **End** |
| Levy | UK | 1995 | Ongoing |
| Pospischil | Austria | 1995 | Ongoing |
| Bolt | Germany | 1995 | 2015 |
| Greim | Germany | 1995 | 2015 |
| Bertazzi | Italy | 1995 | 2010 |
| Foa | Italy | 1995 | 2010 |
| Gonzalez-Fernandez | Spain | 1995 | 2010 |
| Nordman | Finland | 1995 | 2010 |
| Johanson | Sweden | 1999 | Ongoing |
| Masschelein | Belgium | 1999 | 2014 |
| Nielsen | Denmark | 2002 | Ongoing |

**Table S2 SCOEL documents included in the present study from which an**

**EUF or ISM could be derived and whether the substance has an adopted IOELV.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUM/ REC |  |  | Year of most recent IOELV directivea | | | | | |
| Substance (incomplete) | YEAR | -91 | -00 | -06 | -09 | -17 |
| 1 | Ethyl Acetate | 2008 |  |  |  |  | X |
| 2 | Dimethyl Ether | 1991 |  | X |  |  |  |
| 3 | 1-Pentyl Acetate | 1991 |  | X |  |  |  |
| 4 | Phosgene | 2011 |  | X |  |  |  |
| 5 | 2-butanone | 1999 |  | X |  |  |  |
| 6 | 4-Methylpentan-2-one | 1991 |  | X |  |  |  |
| 7 | Heptan-2-one | 1991 |  | X |  |  |  |
| 8 | Heptan-3-one | 1991 |  | X |  |  |  |
| 9 | 5-Methylheptan-3-one | 1991 |  | X |  |  |  |
| 10 | 5-Methylhexan-2-one | 1991 |  | X |  |  |  |
| 11 | Dimethylamine | 1991 |  | X |  |  |  |
| 12 | Tetrahydrofuran | 1992 |  | X |  |  |  |
| 13 | Cyclohexane | 2001 |  |  | X |  |  |
| 14 | Orthophosphoric acid | 1991 |  | X |  |  |  |
| 15 | Diethyl ether | 1991 |  | X |  |  |  |
| 16 | Phenol | 2003 |  |  |  | X |  |
| 17 | Cyclohexanone | 1992 |  | X |  |  |  |
| 18 | Toluene | 2001 |  |  | X |  |  |
| 19 | Xylenes | 1992 |  | X |  |  |  |
| 20 | Ammonia | 1992 |  | X |  |  |  |
| 22 | Hydrogen selenide | 1992 |  | X |  |  |  |
| 23 | Chloroethane | 1999 |  |  | X |  |  |
| 24 | Ethanolamine | 1993 |  |  | X |  |  |
| 25 | Silver | 1993 |  | Met. | Sol. |  |  |
| 27 | Sulphur dioxide | 2009 |  |  |  |  | X |
| 28 | Ethyl benzene | 1995 |  |  |  |  |  |
| 29 | Cumene (withdrawn) | 2015 |  | X |  |  |  |
| 30 | Chloroform | 1995 |  | X |  |  |  |
| 31 | Carbon tetrachloride | 2008 |  |  |  |  | X |
| 32 | Acrolein | 2007 |  |  |  |  | X |
| 33 | Ethylamine | 1994 |  | X |  |  |  |
| 34 | Trimethylbenzene | 1994 |  | X |  |  |  |
| 35 | 1,2,4-Trichlorobenzene | 1994 |  | X |  |  |  |
| 36 | Chlorodifluoromethane | 1993 |  | X |  |  |  |
| 37 | N,N-Dimethylacetamide | 1994 |  | X |  |  |  |
| 38 | 1-Methoxypropan-2-ol | 1999 |  | X |  |  |  |
| 39 | 1-Methoxypropyl-2-acetate | 1995 |  | X |  |  |  |
| 40 | Ethylene glycol | 1995 |  | X |  |  |  |
| 41 | n-Butylacrylate | 1993 |  | X |  |  |  |
| 42 | Monochlorobenzene | 2003 |  |  | X |  |  |
| 44 | Allyl alcohol | 1993 |  | X |  |  |  |
| 45 | Dipropyleneglycol monomethylether | 1993 |  | X |  |  |  |
| 46 | Methylacrylate | 2004 |  |  |  | X |  |
| 47 | Ethylacrylate | 2004 |  |  |  | X |  |
| 48 | Propionic acid | 1993 |  | X |  |  |  |
| 49 | Hydrogen chloride | 1994 |  | X |  |  |  |
| 50 | Chromium metal, (II) and (III) compounds | 2002 |  |  | X |  |  |
| 51 | Sodium azide | 2008 |  | X |  |  |  |
| 52 | n-Hexane | 1995 |  |  | X |  |  |
| 53 | Nitrogen dioxide | 2014 |  |  |  |  | X |
| 54 | n-Heptane | 1995 |  | X |  |  |  |
| 55 | Triethylamine | 1999 |  | X |  |  |  |
| 56 | Fluorides, inorganic | 1998 |  | X |  |  |  |
| 57 | Carbon monoxide | 1995 |  |  |  |  | X |
| 58 | Phosphine | 1998 |  |  | X |  |  |
| 59 | Methyl formate | 2004 |  |  |  |  | X |
| 64 | Tetraethylsilicate | 2008 |  |  |  |  | X |
| 65 | 1,4-Dichlorobenzene | 2014 |  | X |  |  | X |
| 66 | 1,2-Dichlorobenzene | 1995 |  | X |  |  |  |
| 67 | Caprolactam | 1995 |  | X |  |  |  |
| 68 | 2-Phenylpropene | 1995 |  | X |  |  |  |
| 69 | Sulfotep | 1997 |  | X |  |  |  |
| 70 | 2-Butoxyethanol | 1996 |  | X |  |  |  |
| 72 | Hydrogenated terphenyl | 1994 |  |  |  |  | X |
| 73 | 1,1-Dichloroethane | 1996 |  | X |  |  |  |
| 74 | Acetone | 1997 |  | X |  |  |  |
| 78 | Piperazine | 1997 |  | X |  |  |  |
| 79 | Pentane, neopentane, isopentane | 1997 |  |  | X |  |  |
| 81 | Morpholine | 1999 |  |  | X |  |  |
| 82 | Carbon disulphide | 2008 |  |  |  | X |  |
| 83 | Lead and its inorganic compounds | 2002 |  |  |  |  |  |
| 84 | Mercury and its inorganic divalent compounds | 2007 |  |  |  | X |  |
| 85 | Nickel | 2011 |  |  |  |  |  |
| 87 | White spirit | 2007 |  |  |  |  |  |
| 88 | Man made mineral fibres (withdrawn) | 2012 |  |  |  |  |  |
| 89 | Nitrogen monoxide | 2014 | X |  |  |  | X |
| 91 | Diethylamine | 2002 |  |  | X |  |  |
| 93 | Nitrobenzene | 2002 |  |  | X |  |  |
| 95 | Pyrethrum | 2003 |  |  | X |  |  |
| 98 | Acetic acid | 2012 | X |  |  |  | X |
| 99 | 2-(2-Methoxyethoxy)ethanol | 2001 |  |  | X |  |  |
| 100 | Cyanamide | 2003 |  |  | X |  |  |
| 101 | 2-(2-Butoxyethoxy)ethanol | 2002 |  |  | X |  |  |
| 105 | Sulphuric acid | 2007 |  |  |  | X |  |
| 108 | Man made vitreous fibres | 2002 |  |  |  |  |  |
| 110 | Tert-butyl methyl ether | 2006 |  |  |  | X |  |
| 112 | 1,4-Dioxane | 2004 |  |  |  | X |  |
| 113 | Bisphenol-A | 2014 |  |  |  | X | X |
| 115 | Hydrogen cyanide | 2008 |  |  | X |  | X |
| 116 | 2-Ethoxyethanol | 2007 |  |  |  | X |  |
| 119 | N-Methyl-2-pyrrolidone | 2007 |  |  |  | X |  |
| 120 | 2-Methoxyethanol | 2006 |  |  |  | X |  |
| 121 | N,N-Dimethylformamide | 2006 |  |  |  | X |  |
| 122 | Vinyl acetate | 2005 |  |  |  | X |  |
| 124 | Hydrogen sulphide | 2007 |  |  |  | X |  |
| 125 | Formaldehyde | 2016 |  |  |  |  |  |
| 126 | Methylmethacrylate | 2006 |  |  |  | X |  |
| 127 | Manganese and its inorganic compounds | 2011 |  |  |  |  | X |
| 128 | Acrylic acid | 2012 |  |  |  |  | X |
| 130 | Methylene chloride | 2009 |  |  |  |  | X |
| 132 | Vinylidene chloride | 2008 |  |  |  |  | X |
| 133 | Tetra-chloro-ethylene (PER) | 2009 |  |  |  |  | X |
| 137 | Calcium oxide | 2008 | X |  |  |  | X |
| 138 | Tributyltin | 2010 |  |  |  |  |  |
| 142 | Trichloroethylene | 2009 |  |  |  |  |  |
| 143 | Dibuthyl phthalate | 2016 |  |  |  |  |  |
| 145 | 4-aminotoluene | 2016 |  |  |  |  |  |
| 147 | Glyceryl trinitrate | 2008 |  |  |  |  | X |
| 148 | Diphenyl ether, Octabromoderivative | 2012 |  |  |  |  |  |
| 149 | Diacetyl | 2014 |  |  |  |  | X |
| 153 | Aniline | 2016 |  |  |  |  |  |
| 157 | Amitrole | 2009 |  |  |  |  | X |
| 158 | 2-Ethylhexanol | 2011 |  |  |  |  | X |
| 159 | But-2-yne-1,4-diol | 2011 |  |  |  |  | X |
| 161 | Propylene oxide | 2010 |  |  |  |  |  |
| 163 | Severely refined mineral oil | 2010 |  |  |  |  |  |
| 165 | Refractory Ceramic Fibres (withdrawn) | 2011 |  |  |  |  |  |
| 171 | Copper and inorganic compounds | 2014 |  |  |  |  |  |
| 175 | Beryllium and inorganic compounds | 2017 |  |  |  |  |  |
| 177 | Isoamyl alcohol | 2016 |  |  |  |  |  |
| 178 | N-methylaniline | 2012 |  |  |  |  |  |
| 179 | Trimethylamine | 2017 |  |  |  |  |  |
| 181 | Phosphoryl trichloride | 2015 |  |  |  |  |  |
| 182 | Diphenyl ether | 2012 |  |  |  |  | X |
| 183 | Nitroethane | 2012 |  |  |  |  | X |
| 184 | n-butyl acetate | 2016 |  |  |  |  |  |
| 191 | Chloromethane | 2016 |  |  |  |  |  |
| 336 | Cadmium | 2017 |  |  |  |  |  |

Met. – metallic; Sol. – soluble.

a Directives are 1991/322/EEC; 2000/39/EC; 2006/15/EC; 2017/164/EC. Member States have until 21 August 2018 to bring into force the laws, regulations and administrative provisions necessary to comply Directive 2017/164/EC.