

## 2004 Review of Occupational Exposure Limits in Ontario

| Current Ontario Listing                            |                                    |                                    |                              | Proposed Ontario Listing                                       |  |          |     | Change  |
|--|------------------------------------|------------------------------------|------------------------------|--|--|----------|-----|---|
| Substance  | OEL                                |                                    |                              | Substance  | OEL  |          |     |   |
|  | TWAEV <sup>1</sup>                 | STEV <sup>2</sup>                  | CEV <sup>3</sup>             |  | TWAEV  | STEV     | CEV |   |
| Acetonitrile [75-05-8] - Skin                      | 40 ppm (67 mg/m <sup>3</sup> )     | 60 ppm (100 mg/m <sup>3</sup> )    |                              | Acetonitrile [75-05-8] - Skin                                  | 20 ppm   |          |     | Exposure limit reduced, STEV eliminated<br>MW 120.15  |
| Acrylonitrile [107-13-1]<br>(Designated Substance) | 2 ppm (4.3 mg/m <sup>3</sup> )     |                                    | 10 (21.7 mg/m <sup>3</sup> ) | Acrylonitrile [107-13-1] - Skin<br>(Designated Substance)      | 2 ppm (4.3 mg/m <sup>3</sup> )                           |          |     | Addition of skin irritant notation, elimination of CEV<br>MW 53.05                          |
| Allyl propyl disulfide [2179-59-1]                 | 2 ppm (12 mg/m <sup>3</sup> )      | 3 ppm (18 mg/m <sup>3</sup> )      |                              | Allyl propyl disulfide [279-59-1]                              | 0.5 ppm  |          |     | Exposure limit reduced, STEV eliminated<br>MW 148.16  |
| tert-Amyl methyl ether [994-05-8]                  | 250 ppm (1,045 mg/m <sup>3</sup> ) | 310 ppm (1,295 mg/m <sup>3</sup> ) |                              | tert-Amyl methyl ether (TAME) [994-05-8]                       | 20 ppm   |          |     | Acronym added, exposure limit reduced, STEV eliminated<br>MW 102.2                          |
| Asphalt fumes [8052-42-4]                          | 5 mg/m <sup>3</sup>                |                                    |                              | Asphalt (Bitumen) fume [8052-42-4], as benzene-soluble aerosol | 0.5 mg/m <sup>3</sup><br>(inhalable)                     |          |     | Nomenclature, allowable exposure based on the benzene-soluble aerosol inhalable fraction    |
| Azinphos-methyl [86-50-0] - Skin                   | 0.2 mg/m <sup>3</sup>              |                                    |                              | Azinphos-methyl [86-50-0] – Skin                               | 0.2 mg/m <sup>3</sup><br>(inhalable, vapour and aerosol) |          |     | Exposure limit developed for vapour and aerosol as an inhalable fraction<br>MW 317.34       |
| Bis (2-(dimethylaminoethyl))ether [3033-62-3]      | 5 ppm (33 mg/m <sup>3</sup> )      |                                    |                              | Bis (2-(diethylaminoethyl))ether (DMAEE) [3033-62-3] - Skin    | 0.05 ppm   | 0.15 ppm |     | Acronym added, exposure limit reduced, addition of skin notation, addition of STEVMW 160.26 |

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| Substance   | OEL                                   |                                    |                                    | Substance   | OEL  |      |     |  |
|   | TWAEV <sup>1</sup>                    | STEV <sup>2</sup>                  | CEV <sup>3</sup>                   |   | TWAEV  | STEV | CEV |  |
| 2,6-Bis (1,1-dimethylethyl)-4-methylphenol [128-37-0]       | 10 mg/m <sup>3</sup>                  |                                    |                                    | 2,6-Bis (1,1-dimethylethyl)-4-methylphenol [128-37-0]<br><br>also known as Butylated hydroxytoluene (BHT) | 2 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol) |      |     | Nomenclature, allowable exposure limit developed for vapour and aerosol as an inhalable fraction MW 220.34 |
| Butane [106—97-8]   | 800 ppm<br>(1,900 mg/m <sup>3</sup> ) |                                    |                                    | Butane, all isomers [106—97-8]  | 1,000 ppm  |      |     | Exposure limit increased   |
| 2-Butoxyethyl acetate [112-07-2] - Skin                     | 25 ppm<br>(164 mg/m <sup>3</sup> )    | 75 ppm<br>(492 mg/m <sup>3</sup> ) |                                    | 2-Butoxyethyl acetate (EGBEA) [112-07-2]  | 20 ppm   |      |     | Acronym added, exposure limit reduced, STEV removed, Skin notation removed                                 |
| n-Butyl alcohol [71-36-3] - Skin                            |                                       |                                    | 50 ppm<br>(150 mg/m <sup>3</sup> ) | n-Butanol [71-36-3]   | 20 ppm   |      |     | Name of substance, TWAEV developed, CEV removed, Skin notation removed MW 74.12                            |
| Calcium carbonate, including marble (total dust) [471-34-1] | 10 mg/m <sup>3</sup>                  |                                    |                                    | Calcium carbonate [471-34-1]  | 10 mg/m <sup>3</sup><br>(D)                                |      |     | Nomenclature, notation added   |
| Caprolactam, vapour and aerosol [105-60-2]                  | 0.25 ppm<br>(1 mg/m <sup>3</sup> )    |                                    |                                    | Caprolactam [105-60-2]  | 5 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol) |      |     | Unit of measurement, allowable exposure developed for vapour and aerosol as an inhalable fraction          |
| Captan [133-06-02]  | 5 mg/m <sup>3</sup>                   |                                    |                                    | Captan [133-06-02]  | 5 mg/m <sup>3</sup><br><br>(inhalable)                     |      |     | Allowable exposure developed as an inhalable fraction MW 300.60  |

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| Substance   | OEL                                   |                       |                  | Substance   | OEL  |        |     |  |
|   | TWAEV <sup>1</sup>                    | STEV <sup>2</sup>     | CEV <sup>3</sup> |   | TWAEV  | STEV   | CEV |  |
| Carbofuran [1563-66-2]  | 0.1 mg/m <sup>3</sup>                 |                       |                  | Carbofuran [1563-66-2]<br><br>(inhalable, vapour and aerosol)           | 0.1 mg/m <sup>3</sup>  |        |     | Allowable exposure developed for vapour and aerosol as an inhalable fraction MW 221.30                     |
| 1-Chloro-2-propanol [127-00-4] and 2-Chloro-1-propanol [78-89-7] – Skin | Substance not currently listed        |                       |                  | 1-Chloro-2-propanol [127-00-4] and 2-Chloro-1-propanol [78-89-7] - Skin | 1 ppm  |        |     | Addition of substance to regulation MW 94.54   |
| Chlorpyrifos [2921-88-2] - Skin   | 0.2 mg/m <sup>3</sup>                 | 0.6 mg/m <sup>3</sup> |                  | Chlorpyrifos [2921-88-2] - Skin   | 0.1 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol) |        |     | Allowable exposure limit developed for vapour and aerosol as an inhalable fraction, STEV removed MW 350.57 |
| Cyclohexane [110-82-7]  | 300 ppm<br>(1,030 mg/m <sup>3</sup> ) |                       |                  | Cyclohexane [110-82-7]  | 100 ppm  |        |     | Exposure limit reduced MW 84.16  |
| Cyclohexanone [108-94-1] - Skin   | 25 ppm<br>(100 mg/m <sup>3</sup> )    |                       |                  | Cyclohexanone [108-94-1] - Skin   | 20 ppm   | 50 ppm |     | Exposure limit reduced, STEV introduced MW 98.14   |

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| Substance                            | OEL                                   |                   |                  | Substance                            | OEL   |      |     |   |
|                                      | TWAEV <sup>1</sup>                    | STEV <sup>2</sup> | CEV <sup>3</sup> |                                      | TWAEV   | STEV | CEV |   |
| Demeton [8065-48-3] - Skin           | 0.01 ppm<br>(0.11 mg/m <sup>3</sup> ) |                   |                  | Demeton [8065-48-3] - Skin           | 0.05 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol) |      |     | Allowable exposure limit developed for vapour and aerosol as an inhalable fraction MW 258.34                |
| Demeton-S-methyl [919-86-8] – Skin   | Substance not currently listed        |                   |                  | Demeton-S-methyl [919-86-8] – Skin   | 0.05 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol) |      |     | Addition of substance to regulation   |
| 2,2-Dichloropropionic acid [75-99-0] | 1 ppm<br>(6 mg/m <sup>3</sup> )       |                   |                  | 2,2-Dichloropropionic acid [75-99-0] | 5 mg/m <sup>3</sup><br><br>(inhalable)                        |      |     | Allowable exposure limit developed as an inhalable fraction MW 142.97                                       |
| Dichlorvos [62-73-7] - Skin          | 0.1 ppm<br>(0.9 mg/m <sup>3</sup> )   |                   |                  | Dichlorvos (DDVP) [62-73-7] – Skin   | 0.1 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol)  |      |     | Allowable exposure limit developed for vapour and aerosol as an inhalable fraction, acronym added MW 220.98 |

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| Substance  | OEL                            |                   |                  | Substance  | OEL   |      |     |   |
|  | TWAEV <sup>1</sup>             | STEV <sup>2</sup> | CEV <sup>3</sup> |  | TWAEV   | STEV | CEV |   |
| Dicrotophos [141-66-2] – Skin  | 0.25 mg/m <sup>3</sup>         |                   |                  | Dicrotophos [141-66-2] – Skin  | 0.05 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol) |      |     | Allowable exposure limit developed for the vapour and aerosol as an inhalable fraction<br>MW 237.21 |
| Diesel fuel [68334-30-5; 68476-30-2; 68476-31-3; 68476-34-6; 77650-28-3], as total hydrocarbons - SkinMW various | Substance not currently listed |                   |                  | Diesel fuel [68334-30-5; 68476-30-2; 68476-31-3; 68476-34-6; 77650-28-3], as total hydrocarbons - Skin | 100 mg/m <sup>3</sup><br><br>(vapour and aerosol)             |      |     | Addition of substance to regulation   |
| ar,ar-Dimethylbenzenamine (sum of all isomers) [1300-73-8] - Skin  | 0.5 ppm                        |                   |                  | ar,ar-Dimethylbenzenamine (sum of all isomers) [1300-73-8] – Skin<br><br>also known as Xylidine        | 0.5 ppm<br><br>(inhalable, vapour and aerosol)                |      |     | Allowable exposure limit developed for the vapour and aerosol as an inhalable fraction MW 121.18    |
| Dimethyl sulfide [75-18-3]   | Substance not currently listed |                   |                  | Dimethyl sulfide [75-18-3]   | 10 ppm  |      |     | Addition of substance to regulation MW 62.14  |
| Dioxathion [78-34-2] - SkinMW 456.54   | 0.2 mg/m <sup>3</sup>          |                   |                  | Dioxathion [78-34-2] - Skin  | 0.1 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol)  |      |     | Allowable exposure limit developed for the vapour and aerosol as an inhalable fraction              |

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| Substance   | OEL  |                   |                  | Substance   | OEL   |      |        |   |
|   | TWAEV <sup>1</sup>   | STEV <sup>2</sup> | CEV <sup>3</sup> |   | TWAEV   | STEV |        | CEV   |
| 1,3-Dioxolane [646-06-0] MW 74.08   | Substance not currently listed   |                   |                  | 1,3-Dioxolane [646-06-0]  | 20 ppm  |      |        | Addition of substance to regulation   |
| Disulfoton [298-04-4]   | 0.1 mg/m <sup>3</sup>  |                   |                  | Disulfoton [298-04-4] - Skin  | 0.05 mg/m <sup>3</sup><br>(inhalable, vapour and aerosol) |      |        | Allowable exposure limit developed for the vapour and aerosol as an inhalable fraction, skin notation added |
| Dodecyl mercaptan [112-55-0]  | Substance not currently listed   |                   |                  | Dodecyl mercaptan [112-55-0]  | 0.1 ppm   |      |        | Addition of substance to regulation MW 202.4  |
| Ethane [74-84-0]  | No specific exposure limit currently. Substance is listed as an asphyxiant in Part 9 of the regulation |                   |                  | Ethane [74-84-0]  | 1,000 ppm   |      |        | TWAEV developed for substance, substance moved from Part 9 (Asphyxiants) of the regulation to Part 4.       |
| O-Ethyl O-p-nitrophenyl phenylphosphonothioate [2104-64-5] - Skin MW 323.31 | 0.1 mg/m <sup>3</sup>  |                   |                  | O-Ethyl O-p-nitrophenyl phenylphosphonothioate (EPN) [2104-64-5] - Skin | 0.1 mg/m <sup>3</sup><br>(inhalable)                      |      |        | Allowable exposure limit developed as an inhalable fraction, acronym added                                  |
| Ethion [563-12-2] - Skin  | 0.4 mg/m <sup>3</sup>  |                   |                  | Ethion [563-12-2] - Skin  | 0.05 mg/m <sup>3</sup><br>(inhalable, vapour and aerosol) |      |        | Allowable exposure limit developed for vapour and aerosol as an inhalable fraction<br><br>MW 384.48         |

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| Substance  | OEL                            |                         |                  | Substance  | OEL  |         |  |
|  | TWAEV <sup>1</sup>             | STEV <sup>2</sup>       | CEV <sup>3</sup> |  | TWAEV  | STEV    |  |
| 2-Ethylhexanoic acid [149-57-5]<br>MW 144.24                               | Substance not currently listed |                         |                  | 2-Ethylhexanoic acid [149-57-5]  | 5 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol)   |         | Addition of substance to regulation  |
| Ethyl tert-butyl ether (ETBE) [637-92-3]<br>MW 102.18                      | Substance not currently listed |                         |                  | Ethyl tert-butyl ether (ETBE) [637-92-3]                                   | 5 ppm  |         | Addition of substance to regulation  |
| Wheat flour dust (total dust)  | 3 mg/m <sup>3</sup>            |                         |                  | Flour dust   | 0.5 mg/m <sup>3</sup><br><br>(inhalable)                     |         | Nomenclature, allowable exposure limit developed as an inhalable fraction                                      |
| Gasoline [8006-61-9]   | 900 mg/m <sup>3</sup>          | 1,500 mg/m <sup>3</sup> |                  | Gasoline [86290-81-5]  | 300 ppm  | 500 ppm | CAS number, unit of measurement  |
| Glyoxal [107-22-2]MW 58.04   | Substance not currently listed |                         |                  | Glyoxal [107-22-2]   | 0.1 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol) |         | Addition of substance to regulation  |
| Hexahydrophthalic anhydride, All isomers [85-42-7; 13149-00-3; 14166-21-3] | Substance not currently listed |                         |                  | Hexahydrophthalic anhydride, All isomers [85-42-7; 13149-00-3; 14166-21-3] |  |         | 0.005 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol)<br>Addition of substance to regulationMW 154.17 |

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|---|------------------------------------|------------------------------------|--------------------------------|--|-----------------------|---------|---------------------------------------|---|
| Substance   | OEL                                |                                    |                                | Substance  | OEL                   |         |                                       |   |
|   | TWAEV <sup>1</sup>                 | STEV <sup>2</sup>                  | CEV <sup>3</sup>               |  | TWAEV                 | STEV    | CEV                                   |   |
| 1-Hexene [592-41-6]   | 30 ppm                             |                                    |                                | 1-Hexene [592-41-6]  | 50 ppm                |         |                                       | Exposure limit increased  |
| Hydrogen bromide [10035-10-6]                                       |                                    |                                    | 3 ppm (10 mg/m <sup>3</sup> )  | Hydrogen bromide [10035-10-6]  |                       |         | 2 ppm                                 | Exposure limit reduced MW 80.92   |
| Hydrogen Chloride [7647-01-0]<br>MW 36.47                           |                                    |                                    | 5 ppm (7.4 mg/m <sup>3</sup> ) | Hydrogen Chloride [7647-01-0]  |                       |         | 2 ppm                                 | Exposure limit reduced  |
| Isobutyl nitrite [542-56-3]   | Substance not currently listed     |                                    |                                | Isobutyl nitrite [542-56-3]  |                       |         | 1 ppm (inhalable, vapour and aerosol) | Addition of substance to regulation MW 103.12   |
| Isopropyl acetate [108-21-4]  | 250 ppm (1,040 mg/m <sup>3</sup> ) | 310 ppm (1,295 mg/m <sup>3</sup> ) |                                | Isopropyl acetate [108-21-4]   | 100 ppm               | 200 ppm |                                       | Exposure limit reduced MW 102.13  |
| Isopropyl alcohol [67-63-0]<br>MW 60.09                             | 400 ppm (980 mg/m <sup>3</sup> )   | 500 ppm (1,225 mg/m <sup>3</sup> ) |                                | Isopropanol [67-63-0]  | 200 ppm               | 400 ppm |                                       | Exposure limit reduced, nomenclature  |
| Kerosene, straight-run [8008-20-6] and hydrosulfurized [64742-81-0] | 35 ppm (250 mg/m <sup>3</sup> )    |                                    |                                | Kerosene [8008-20-6;64742-81-0]/Jet fuels as total hydrocarbon vapour (p) - Skin variable MW | 200 mg/m <sup>3</sup> |         |                                       | Exposure limit reduced, jet fuels added (nomenclature), exposure limit developed as vapour, skin notation added |
| L.P.G. (Liquified petroleum gas) [68476-85-7]                       | 1,800 mg/m <sup>3</sup>            |                                    |                                | L.P.G. (Liquified petroleum gas) [68476-85-7]  | 1000 ppm              |         |                                       | Unit of measure changed   |



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| Substance  | OEL  |                     |                  | Substance  | OEL  |      |        |  |
|  | TWAEV <sup>1</sup>   | STEV <sup>2</sup>   | CEV <sup>3</sup> |  | TWAEV  | STEV |        | CEV  |
| Magnesium oxide fume [1309-48-4]<br><br>MW40.32          | 10 mg/m <sup>3</sup>   |                     |                  | Magnesium oxide [1309-48-4]<br><br>(inhalable)       | 10 mg/m <sup>3</sup>                                       |      |        | Allowable exposure changed from fume content to inhalable fraction   |
| Malathion [121-75-5] - Skin<br>MW 330.36                 | 10 mg/m <sup>3</sup>   |                     |                  | Malathion [121-75-5] - Skin                          | 1 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol) |      |        | Allowable exposure limit developed as a vapour and aerosol inhalable fraction  |
| Maleic anhydride [108-31-6]<br>MW 98.06                  | 0.25 ppm<br>(1 mg/m <sup>3</sup> )   |                     |                  | Maleic anhydride [108-31-6]                          | 0.1 ppm  |      |        | Exposure limit reduced   |
| Manganese, dust and compounds (as manganese) [7439-96-5] | 0.2 mg/m <sup>3</sup>  |                     |                  | Manganese [7439-96-5] and inorganic compounds, as Mn | 0.2 mg/m <sup>3</sup>                                      |      |        | STEV eliminated and TWAEV limit developed to apply to exposure to Manganese, and Manganese component of Manganese-containing inorganic compounds |
| Manganese-containing fume (as manganese) [7439-96-5]     | 1 mg/m <sup>3</sup>  | 3 mg/m <sup>3</sup> |                  |  |  |      |        |  |
| Methane [74-82-8]  | No specific exposure limit currently. Substance is listed as an asphyxiant in Part 9 of the regulation |                     |                  | Methane [74-82-8]                                    | 1,000 ppm  |      |        | TWAEV developed for substance, substance moved from Part 9 of the regulation (Exposure Values for Simple Asphyxiants) to Part 4 MW 18            |
| Methyl tert-butyl ether (MTBE) [1634-04-4]               | Substance not currently listed   |                     |                  | Methyl tert-butyl ether (MTBE) [1634-04-4]           | 50 ppm   |      |        | Addition of substance to regulation MW 88.17   |

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| Substance   | OEL                                  |                                      |                  | Substance  | OEL  |         |     |   |
|   | TWAEV <sup>1</sup>                   | STEV <sup>2</sup>                    | CEV <sup>3</sup> |  | TWAEV  | STEV    | CEV |   |
| Methyl methacrylate<br>[80-62-6] MW 100.13                          | 100 ppm<br>(410 mg/m <sup>3</sup> )  |                                      |                  | Methyl methacrylate [80-62-6]                      | 50 ppm   | 100 ppm |     | Exposure limit reduced, STEV introduced   |
| Mevinphos [7786-34-7] - Skin  | 0.01 ppm<br>(0.1 mg/m <sup>3</sup> ) | 0.03 ppm<br>(0.3 mg/m <sup>3</sup> ) |                  | Mevinphos [7786-34-7] - Skin                       | 0.01 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol)              |         |     | Allowable exposure limit developed for vapour and aerosol as an inhalable fraction, STEV eliminated                                     |
| Molybdenum metal, dioxide and disulfide (as molybdenum) [7439-98-7] | 10 mg/m <sup>3</sup>                 |                                      |                  | Molybdenum [7439-98-7], as Mo<br>Soluble compounds | 0.5 mg/m <sup>3</sup><br>(respirable)                                      |         |     | Nomenclature, limit for soluble compounds of Mo reduced, limits for insoluble compounds developed as inhalable and respirable fractions |
| Molybdenum trioxide and molybdates (as molybdenum) [7439-98-8]      | 5 mg/m <sup>3</sup>                  |                                      |                  | Metal and insoluble compounds                      | 10 mg/m <sup>3</sup><br>(inhalable) or 3 mg/m <sup>3</sup><br>(respirable) |         |     |   |
| Monocrotophos [6923-22-4]   | 0.25 mg/m <sup>3</sup>               |                                      |                  | Monocrotophos [6923-22-4] - Skin                   | 0.05 mg/m <sup>3</sup><br><br>(inhalable, vapour and aerosol)              |         |     | Allowable exposure limit developed as a fraction of inhalable vapour and aerosol, skin notation added                                   |

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| Substance  | OEL                            |                   |                  | Substance  | OEL   |      |        |  |
|  | TWAEV <sup>1</sup>             | STEV <sup>2</sup> | CEV <sup>3</sup> |  | TWAEV   | STEV |        | CEV  |
| Naled [300-76-5] - Skin                                    | 3 mg/m <sup>3</sup>            |                   |                  | Naled [300-76-5]   | 0.1 mg/m <sup>3</sup><br>(inhalable, vapour and aerosol)  |      |        | Allowable exposure limit developed as a vapour and aerosol inhalable fraction, skin notation removed |
| Natural gas [8006-14-2]                                    | Substance not currently listed |                   |                  | Natural gas [8006-14-2]                                    | 1,000 ppm   |      |        | Addition of substance to regulation  |
| Natural rubber latex [9006-04-6], as Total proteins - Skin | Substance not currently listed |                   |                  | Natural rubber latex [9006-04-6], as Total proteins – Skin | 0.001 mg/m <sup>3</sup><br>(inhalable)                    |      |        | Addition of substance to regulation  |
| p,p'-Oxybis(benzenesulfonyl hydrazide) [80-51-3]           | Substance not currently listed |                   |                  | p,p'-Oxybis(benzenesulfonyl hydrazide) [80-51-3]           | 0.1 mg/m <sup>3</sup><br>(inhalable)                      |      |        | Addition of substance to regulation  |
| Parathion [56-38-2] - Skin                                 | 0.05 mg/m <sup>3</sup>         |                   |                  | Parathion [56-38-2] - Skin                                 | 0.05 mg/m <sup>3</sup><br>(inhalable, vapour and aerosol) |      |        | Allowable exposure limit developed as a vapour and aerosol inhalable fraction                        |

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| Substance  | OEL   |                   |                  | Substance   | OEL  |         |     |   |
|  | TWAEV <sup>1</sup>  | STEV <sup>2</sup> | CEV <sup>3</sup> |   | TWAEV  | STEV    | CEV |   |
| Particulates (insoluble) Not Otherwise Classified (PNOC) | 10 mg/m <sup>3</sup> (D) (inhalable) or 3 mg/m <sup>3</sup> (D)(respirable) |                   |                  | Particles (insoluble or poorly soluble) Not Otherwise Specified (PNOS)                          | 10 mg/m <sup>3</sup> (inhalable) or 3 mg/m <sup>3</sup> (respirable) |         |     | Nomenclature, (D) notation removed  |
| n-Amyl acetate [628-63-7]                                | 100 ppm (530 mg/m <sup>3</sup> )  |                   |                  | Pentyl acetate, Sum of all isomers [628-63-7; 626-38-0; 123-92-2; 625-16-1; 624-41-9; 620-11-1] | 50 ppm   | 100 ppm |     | New format of listing includes all pentyl isomers of acetate, as a summed total exposure, 3 new isomers |
| sec-Amyl acetate [54396-15-4]                            | 125 ppm (660 mg/m <sup>3</sup> )  |                   |                  |   |  |         |     |   |
| Isoamyl acetate [123-92-2]                               | 100 ppm (530 mg/m <sup>3</sup> )  |                   |                  |   |  |         |     |   |
| Perfluorobutyl ethylene [19430-93-4]                     | Substance not currently listed  |                   |                  | Perfluorobutyl ethylene [19430-93-4]  | 100 ppm  |         |     | Addition of substance to regulation   |
| (Phenoxymethyl)oxirane [122-60-1]                        | 0.1 ppm   |                   |                  | (Phenoxymethyl)oxirane [122-60-1] – Skin<br>also known as Phenyl glycidyl ether (PGE) MW 150.17 | 0.1 ppm  |         |     | Nomenclature, skin notation added   |
| Phenyl mercaptan [108-98-5] - Skin                       | Substance not currently listed  |                   |                  | Phenyl mercaptan [108-98-5] - Skin  | 0.1 ppm  |         |     | Addition of substance to regulation MW 110.18   |

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| Current Ontario Listing   |                                     |                                     |                  | Proposed Ontario Listing                |   |         | Change |  |
|---|-------------------------------------|-------------------------------------|------------------|---|---|---------|--------|--|
| Substance   | OEL                                 |                                     |                  | Substance                               | OEL   |         |        |  |
|   | TWAEV <sup>1</sup>                  | STEV <sup>2</sup>                   | CEV <sup>3</sup> |   | TWAEV   | STEV    |        | CEV  |
| Phosphorothionic acid 0,0-diethyl o-(6-methyl)-2-(1-methylethyl)-4-pyrimidinyl) ester [333-41-5] - Skin | 0.1 mg/m <sup>3</sup>               |                                     |                  | Diazinon [333-41-5] - Skin              | 0.01 mg/m <sub>3</sub><br><br>(inhalable, vapour and aerosol) |         |        | Name of substance, allowable exposure limit developed as vapour and aerosol inhalable fraction MW 304.36 |
| Phosphorus (yellow or white) [7723-14-0]  | 0.1 mg/m <sup>3</sup>               |                                     |                  | Phosphorus (yellow) [12185-10-3]        | 0.1 mg/m <sup>3</sup>   |         |        | Nomenclature, CAS number updated 123.92  |
| Propane [74-98-6]   | 2,500 ppm                           |                                     |                  | Propane [74-98-6]                       | 1,000 ppm   |         |        | Exposure limit reduced MW 50   |
| n-Propyl alcohol [71-23-8] - Skin   | 200 ppm<br>(490 mg/m <sup>3</sup> ) | 250 ppm<br>(615 mg/m <sup>3</sup> ) |                  | n-Propanol (n-Propyl alcohol) [71-23-8] | 200 ppm   | 250 ppm |        | Nomenclature, skin notation removed MW 60.09   |
| Propionaldehyde [123-38-6]<br><br>MW 58.1   | Substance not currently listed      |                                     |                  | Propionaldehyde [123-38-6]              | 20 ppm  |         |        | Addition of substance to regulation  |
| Propylene oxide [75-56-9]<br>MW 58.08   | Substance not currently listed      |                                     |                  | Propylene oxide [75-56-9]               | 2 ppm   |         |        | Addition of substance to regulation  |
| Pyridine [110-86-1]   | 5 ppm (16 mg/m <sup>3</sup> )       |                                     |                  | Pyridine [110-86-1]                     | 1 ppm   |         |        | Exposure limit reduced MW 79.10  |

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| Current Ontario Listing   |  |                     |                  | Proposed Ontario Listing   |   |      | Change |  |
|---|--|---------------------|------------------|--|---|------|--------|--|
| Substance   | OEL                                    |                     |                  | Substance  | OEL   |      |        |  |
|   | TWAEV <sup>1</sup>                     | STEV <sup>2</sup>   | CEV <sup>3</sup> |  | TWAEV   | STEV |        | CEV  |
| Rosin core solder pyrolysis products (as formaldehyde)                              | 0.1 mg/m <sup>3</sup>                  |                     |                  | Rosin core solder thermal decomposition products (colophony) [8050-09-7] (L)                 |   |      |        | TWAEV withdrawn, notation (L) added to require exposure by all routes be carefully controlled to levels as low as possible, CAS number added, nomenclature |
| Silica, Crystalline – Quartz [14808-60-7]<br><br>(Designated Substance)<br>MW 60.08 | 0.10 mg/m <sup>3</sup><br>(respirable) |                     |                  | Silica, Crystalline – Quartz [14808-60-7]<br><br>(Designated Substance)                      | 0.05 mg/m <sup>3</sup><br>(respirable)  |      |        | Exposure limit reduced   |
| Silicon Carbide (total dust) [409-21-2]   | 10 mg/m <sup>3</sup><br>(D)            |                     |                  | Silicon Carbide [409-21-2]<br>Nonfibrous<br><br>Fibrous (including whiskers)<br><br>MW 40.10 | 10 mg/m <sup>3</sup><br>(inhalable) (D)<br>or 3 mg/m <sup>3</sup><br>(respirable)(D)<br><br>0.1 f/cc<br>(respirable fibre(F)) |      |        | Individual limits developed for Non-fibrous and Fibrous forms, limits developed for the inhalable and/or respirable fraction with appropriate notation     |
| Sulfuric acid [7664-93-9]   | 1 mg/m <sup>3</sup>                    | 3 mg/m <sup>3</sup> |                  | Sulfuric acid [7664-93-9]  | 0.2 mg/m <sup>3</sup><br>(thoracic)   |      |        | Introduces allowable exposure limit for thoracic particulate mass, STEV removed  |

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| Current Ontario Listing  |                     |                   |                  | Proposed Ontario Listing                            |   |      |     | Change  |
|--|---------------------|-------------------|------------------|---|---|------|-----|---|
| Substance  | OEL                 |                   |                  | Substance   | OEL   |      |     |   |
|  | TWAEV <sup>1</sup>  | STEV <sup>2</sup> | CEV <sup>3</sup> |   | TWAEV   | STEV | CEV |   |
| Synthetic Vitreous Fibres<br>(Man made Mineral Fibres)   |                     |                   |                  | Synthetic Vitreous Fibres                           |   |      |     | Specific limit for refractory ceramic fibres introduced, limit developed as a respirable fraction or inhalable fraction, (F) notation added where appropriate |
| Continuous filament glass fibres   | 1 f/cc              |                   |                  | Continuous filament glass fibres                    | 1 f/cc<br>(respirable fibre(F))<br>or<br>5 mg/m <sup>3</sup><br>(inhalable) |      |     |   |
| Continuous filament glass fibres, inhalable  | 5 mg/m <sup>3</sup> |                   |                  | Glass wool fibres                                   | 1 f/cc<br>(respirable fibre(F))   |      |     |   |
| Glass wool fibres  | 1 f/cc              |                   |                  | Rock wool fibres                                    | 1 f/cc<br>(respirable fibre(F))   |      |     |   |
| Rock wool fibres   | 1 f/cc              |                   |                  | Slag wool fibres                                    | 1 f/cc<br>(respirable fibre(F))   |      |     |   |
| Slag wool fibres   | 1 f/cc              |                   |                  | Special purpose glass fibres                        | 1 f/cc<br>(respirable fibre(F))   |      |     |   |
| Special purpose glass fibres   | 1 f/cc              |                   |                  | Refractory ceramic fibres                           | 0.2 f/cc<br>(respirable fibre(F))   |      |     |   |
| Synthetic vitreous fibres, not otherwise classified<br>(excluding fibrous glass dust and mineral wool fibre) | 1 f/cc (E)          |                   |                  | Synthetic vitreous fibres, not otherwise classified | 1 f/cc (E)  |      |     |   |

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| Current Ontario Listing  |  |                       |   | Proposed Ontario Listing  |   |   | Change |  |
|--|--|-----------------------|---|---|---|---|--------|--|
| Substance  | OEL  |                       |   | Substance   | OEL   |   |        |  |
|  | TWAEV <sup>1</sup>                           | STEV <sup>2</sup>     | CEV <sup>3</sup>                            |   | TWAEV   | STEV                                      |        | CEV  |
| Terbufos [13071-79-9] – Skin<br>MW 288.45                          | Substance not currently listed               |                       |   | Terbufos [13071-79-9] – Skin  | 0.01 g/m <sup>3</sup><br>(inhalable,<br>vapour<br>and<br>aerosol) |   |        | Addition of substance to regulation  |
| Tetrafluoroethylene [116-14-3]<br>MW 100.20                        | Substance not currently listed               |                       |   | Tetrafluoroethylene [116-14-3]  | 2 ppm   |   |        | Addition of substance to regulation  |
| Isocyanates, Toluene<br>diisocyanate<br><br>(Designated Substance) | 0.005 ppm<br>(0.2<br>µmoles/m <sup>3</sup> ) |                       | 0.02 ppm<br>(0.8<br>µmoles/m <sup>3</sup> ) | Isocyanates, Toluene-2,4 or 2,6-<br>diisocyanate (or as a mixture)<br>[584-84-9; 91-08-7]<br>(Designated Substance) | 0.005<br>ppm  | 0.02 ppm                                  |        | Nomenclature, introduction of STEV and<br>elimination of CEV increases exposure<br>limit                             |
| Trichlorphon [52-68-6] MW<br>257.60                                | Substance not currently listed               |                       |   | Trichlorphon [52-68-6]  | 1 mg/m <sup>3</sup><br>(inhalable)                                |   |        | Addition of substance to regulation  |
| Turpentine [8006-64-2]   | 560 mg/m <sup>3</sup>                        |                       |   | Turpentine [8006-64-2] MW<br>136.00 and selected<br>monoterpenes [80-56-8; 127-91-<br>3; 13466-78-9] MW variable    | 20 ppm  |   |        | Allowable exposure reduced, selected<br>monoterpenes added to regulation, unit<br>of measurement                     |
| N-Vinyl-2-pyrrolidone [88-12-0]<br>MW 111.16                       | Substance not currently listed               |                       |   | N-Vinyl-2-pyrrolidone [88-12-0]   | 0.05 ppm  |   |        | Addition of substance to regulation  |
| Zinc oxide (total dust) [1314-13-2]                                | 10 mg/ m <sup>3</sup>                        |                       |   | Zinc oxide [1314-13-2]  | 2 mg/ m <sup>3</sup><br>(respirabl<br>e)                          | 10 mg/ m <sup>3</sup><br>(respirabl<br>e) |        | Allowable exposure reduced,<br>consolidation of listing, limits developed<br>for the respirable fraction, STEV added |
| Zinc oxide fume [1314-13-2]  | 5 mg/ m <sup>3</sup>                         | 10 mg/ m <sup>3</sup> |   |   |   |   |        |  |



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Shading of row denotes substance is a new addition to the regulation.

<sup>1</sup> TWAEV: Time weighted average exposure value; the average of the airborne concentrations of a biological or chemical agent determined from air samples of the airborne concentrations to which a worker is exposed in eight-hour day or a 40-hour week.

<sup>2</sup> STEV: Short-term exposure value; is the maximum airborne concentration of a biological or chemical agent to which a worker is exposed in any 15-minute period determined from a single sample or a time-weighted average of sequential samples taken during such a period.

<sup>3</sup> CEV: Ceiling exposure value; is the maximum airborne concentration of a biological or chemical agent to which a worker is exposed at any time.

(D) Particulate matter containing no asbestos and less than 1% crystalline silica.

(E) A secondary limit of  $5 \text{ mg/m}^3$  (total dust) is recommended to deal with dusty operations where fibre counts are usually difficult to determine. Where both types of measurements are made simultaneously, the more restrictive limit should be used to assess the exposures.

(F) Respirable fibres: length  $> 5\mu\text{m}$ ; aspect ratio  $\geq 3:1$  as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination.

(P) Application of limit restricted to conditions in which there are negligible aerosol exposures.

(L) means ACGIH recommends that exposure by all routes should be carefully controlled to levels as low as possible.