

Supplementary Material

Chemical name	CAS #	Reference value ($\mu\text{g}/\text{m}^3$)	Source	HAPS International RfC (mg/m^3)	HAPS International RfC (ppm)	IH exposure limit (ppm)	IH exposure limit source
1,1-Dichloroethane	75-34-3			Not assessed under the IRIS	Not assessed under the IRIS	100	ACGIH TLV
1,1-Dichloroethene	75-35-4	200	RfC	0.20		5	ACGIH TLV
1,1,1-Trichloroethane	71-55-6	5000	RfC	5	0.91644427 1	10	ACGIH TLV
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	105000	RfD	Not assessed under the IRIS	Not assessed under the IRIS	1000	ACGIH TLV
1,1,2-Trichloroethane	79-00-5	6.25	IUR	Not assessed under the IRIS	Not assessed under the IRIS	10	ACGIH TLV
1,1,2,2-Tetrachloroethane	79-34-5	70	RfD	Information reviewed but value not estimated.	Not assessed under the IRIS	1	ACGIH TLV
1,2-Dibromoethane (EDB)	106-93-4	9	RfD	0.009	0.00117133 9	20	ACGIH TLV
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2			Not assessed under the IRIS	Not assessed under the IRIS	1000	ACGIH TLV
1,2-Dichlorobenzene	95-50-1	315	RfD	Not assessed under the IRIS	Not assessed under the IRIS	25	ACGIH TLV
1,2-Dichloroethane	107-06-2	3.85	IUR	Not assessed under the IRIS	Not assessed under the IRIS	100	ACGIH TLV
1,2-Dichloropropane	78-87-5	4	RfC	0.004	0.00086563 2	10	ACGIH TLV
1,2,4-Trichlorobenzene	120-82-1	35	RfD	Not assessed under the IRIS	Not assessed under the IRIS	2	CDC
1,2,4-Trimethylbenzene	95-63-6	60	RfC	0.06	0.01220516 7	25	ACGIH TLV
1,3-Butadiene	106-99-0	2	RfC	0.002	0.00090401 5	2	ACGIH TLV

1,3-Dichlorobenzene	541-73-1			Not assessed under the IRIS	Not assessed under the IRIS	25	ACGIH TLV
1,3,5-Trimethylbenzene	108-67-8	60	RfC	0.06	0.012205167	25	ACGIH TLV
1,4-Dichlorobenzene	106-46-7	800	RfC	0.8	0.133063035	10	ACGIH TLV
1,4-Dioxane	123-91-1	30	RfC	0.03	0.008325199	20	ACGIH TLV
2-Butanone (MEK)	78-93-3	5000	RfC	5	1.695397118	200	ACGIH TLV
2-Hexanone	591-78-6	30	RfC	0.03	0.00732321	100	ACGIH TLV
2-Propanol	67-63-0			Not assessed under the IRIS	Not assessed under the IRIS	200	ACGIH TLV
2,2,4-Trimethylpentane	540-84-1			Not assessed under the IRIS	Not assessed under the IRIS	300	ACGIH TLV
4-Ethyltoluene	622-96-8			Not assessed under the IRIS	Not assessed under the IRIS	None listed	Not applicable
4-Methyl-2-pentanone (MIBK)	108-10-1	3000	RfC	3	0.732320963	20	ACGIH TLV
Acetone	67-64-1	3150	RfD	Information reviewed but value not estimated.	Information reviewed but value not estimated.	250	ACGIH TLV
Allyl chloride	107-05-1	1	RfC	0.001	0.000319512	1	ACGIH TLV
Benzene	71-43-2	30	RfC	0.03	0.009390122	0.5	ACGIH TLV
Benzyl chloride	100-44-7	2.06	OS	Information reviewed but value not estimated.	Not assessed under the IRIS	1	ACGIH TLV
Bromodichloromethane	75-27-4	70	RfD	Not assessed under the IRIS	Not assessed under the IRIS	None listed	Not applicable
Bromoform	75-25-2	90.9	IUR	Information reviewed but value not estimated.	Not assessed under the IRIS	0.5	ACGIH TLV
Bromomethane	74-83-9	5	RfC	5.00E-03	1.29E-03	200	ACGIH TLV

Carbon disulfide	75-15-0	700	RfC	0.7	0.224809867	1	ACGIH TLV
Carbon tetrachloride	56-23-5	100	RfC	0.1	0.015896132	5	ACGIH TLV
Chlorobenzene	108-90-7	70	RfD	Not assessed under the IRIS	Not assessed under the IRIS	10	ACGIH TLV
Chloroethane	75-00-3	10000	RfC	10	3.79	100	ACGIH TLV
Chloroform	67-66-3	4.35	RfD	Not assessed under the IRIS	Not assessed under the IRIS	10	ACGIH TLV
Chloromethane	74-87-3	90	RfC	0.09	0.043587204	100	ACGIH TLV
cis-1,2-Dichloroethene	156-59-2	7	RfD	Information reviewed but value not estimated.	Not assessed under the IRIS	200	ACGIH TLV
cis-1,3-Dichloropropene	10061-01-5	20	RfC	Not assessed under the IRIS	Not assessed under the IRIS	1	ACGIH TLV
Cyclohexane	110-82-7	6000	RfC	6	1.743066942	100	ACGIH TLV
Dibromochloromethane	124-48-1	70	RfD	Not assessed under the IRIS	Not assessed under the IRIS	None listed	Not applicable
Dichlorodifluoromethane	75-71-8	700	RfD	Not assessed under the IRIS	Not assessed under the IRIS	1000	ACGIH TLV
Ethanol	64-17-5			Not assessed under the IRIS	Not assessed under the IRIS	1000	NIOSH REL/OSH A PEL
Ethyl acetate	141-78-6	3150	RfD	Not assessed under the IRIS	Not assessed under the IRIS	400	ACGIH TLV
Ethylbenzene	100-41-4	1000	RfC	1	0.230295381	20	ACGIH TLV
Hexachlorobutadiene	87-68-3	4.55	IUR	Not assessed under the IRIS	Not assessed under the IRIS	0.02	ACGIH TLV
Isopropylbenzene	98-82-8	400	RfC	0.4	0.081367777	50	ACGIH TLV
m,p-Xylene	179601-23-1	100	RfC	0.1	0.023031274	100	ACGIH TLV
Methylcyclohexane	108-87-2			Not assessed under the IRIS	Not assessed under the IRIS	400	ACGIH TLV

Methylene Chloride	75-09-2	600	RfC	0.6	0.172736586	50	ACGIH TLV
Methyl tert-butyl ether	1634-04-4	3000	RfC	3		50	ACGIH TLV
n-Butylbenzene	104-51-8			Not assessed under the IRIS	Not assessed under the IRIS	10	NIOSH REL/OSH A PEL
n-Heptane	142-82-5			Not assessed under the IRIS	Not assessed under the IRIS	400	ACGIH TLV
n-Hexane	110-54-3	700	RfC	0.7	0.198600571	50	ACGIH TLV
n-Nonane	111-84-2			Not assessed under the IRIS	Not assessed under the IRIS	200	ACGIH TLV
n-Octane	111-65-9			Not assessed under the IRIS	Not assessed under the IRIS	300	ACGIH TLV
N-Propylbenzene	103-65-1			Not assessed under the IRIS	Not assessed under the IRIS	None listed	Not applicable
Naphthalene	91-20-3	3	RfC	0.003	0.000572269	10	ACGIH TLV
o-Xylene	95-47-6	100	RfC	0.1	0.023029104	100	ACGIH TLV
Propene	115-07-1			Not assessed under the IRIS	Not assessed under the IRIS	500	ACGIH TLV
sec-Butylbenzene	135-98-8			Not assessed under the IRIS	Not assessed under the IRIS	None listed	Not applicable
Styrene	100-42-5	1000	RfC	1	0.234753053	20	ACGIH TLV
tert-Butylbenzene	98-06-6			Not assessed under the IRIS	Not assessed under the IRIS	10	NIOSH REL/OSH A PEL
Tetrachloroethene	127-18-4	40	RfC	0.04	0.005897891	25	ACGIH TLV
Tetrahydrofuran	109-99-9	2000	RfC	2	0.678158847	50	ACGIH TLV
Toluene	108-88-3	5000	RfC	5	1.326770927	20	ACGIH TLV
trans-1,2-Dichloroethene	156-60-5	70	RfD	Not assessed under the IRIS	Not assessed under the IRIS	200	ACGIH TLV

trans-1,3-Dichloropropene	10061-02-6	20	RfC	Not assessed under the IRIS	Not assessed under the IRIS	1	ACGIH TLV
Trichloroethene	79-01-6	2	RfC	0.002	0.000372203	10	ACGIH TLV
Trichlorofluoromethane	75-69-4	1050	RfD	Not assessed under the IRIS	Not assessed under the IRIS	1000	ACGIH TLV
Vinyl acetate	108-05-4	200	RfC	0.2	0.056801022	10	ACGIH TLV
Vinyl bromide	593-60-2	3	RfC	0.003	0.000685835	0.5	ACGIH TLV
Vinyl chloride	75-01-4	100	RfC	0.1	0.039122504	1	ACGIH TLV

Versions and References for R and Packages

This section is included because knowing the versions of R and packages is essential for reproducible research and to give credit to the developers of the packages.

Versions of R and packages used in this report from the sessionInfo() command:

```
R version 4.3.1 (2023-06-16)
Platform: aarch64-apple-darwin20 (64-bit)
Running under: macOS Ventura 13.5

Matrix products: default

BLAS:   /Library/Frameworks/R.framework/Versions/4.3-arm64/Resources/lib/libRblas.0.dylib
LAPACK: /Library/Frameworks/R.framework/Versions/4.3-arm64/Resources/lib/libRlapack.dylib; LAPACK version 3.11.0

locale:
[1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8

time zone: America/Phoenix
tzcode source: internal

attached base packages:
[1] stats      graphics  grDevices  utils      datasets  methods   base

other attached packages:
[1] report_0.5.7          forcats_1.0.0          stringr_1.5.0
```

```
[4] dplyr_1.1.2          purrr_1.0.1          readr_2.1.4
[7] tidyr_1.3.0          tibble_3.2.1         tidyverse_2.0.0
[10] ggforce_0.4.1        scales_1.2.1         viridis_0.6.4
[13] viridisLite_0.4.2    simplecolors_0.1.1   emmeans_1.8.7
[16] lmerTest_3.1-3       lme4_1.1-34          Matrix_1.6-0
[19] ggpubr_0.6.0         ggplot2_3.4.2        arsenal_3.6.3
[22] lubridate_1.9.2      kableExtra_1.3.4.9000 knitr_1.43
```

loaded via a namespace (and not attached):

```
[1] tidyselect_1.2.0      farver_2.1.1          fastmap_1.1.1
[4] tweenr_2.0.2          digest_0.6.33         timechange_0.2.0
[7] estimability_1.4.1    lifecycle_1.0.3       magrittr_2.0.3
[10] compiler_4.3.1        rlang_1.1.1           sass_0.4.7
[13] tools_4.3.1           utf8_1.2.3            yaml_2.3.7
[16] ggsignif_0.6.4         labeling_0.4.2         bit_4.0.5
[19] xml2_1.3.5            abind_1.4-5           withr_2.5.0
[22] numDeriv_2016.8-1.1   grid_4.3.1            polyclip_1.10-4
[25] fansi_1.0.4           xtable_1.8-4          colorspace_2.1-0
[28] MASS_7.3-60           insight_0.19.3         cli_3.6.1
[31] mvtnorm_1.2-2         crayon_1.5.2          rmarkdown_2.23
[34] ragg_1.2.5            generics_0.1.3        rstudioapi_0.15.0
[37] httr_1.4.6            tzdb_0.4.0            minqa_1.2.5
[40] cachem_1.0.8          splines_4.3.1         parallel_4.3.1
[43] rvest_1.0.3           vctrs_0.6.3           boot_1.3-28.1
[46] webshot_0.5.5         jsonlite_1.8.7        carData_3.0-5
[49] bookdown_0.34         car_3.1-2             hms_1.1.3
[52] pbkrtest_0.5.2        bit64_4.0.5           rstatix_0.7.2
[55] systemfonts_1.0.4     jquerylib_0.1.4       glue_1.6.2
[58] nloptr_2.0.3          stringi_1.7.12        gtable_0.3.3
[61] munsell_0.5.0         pillar_1.9.0          htmltools_0.5.5
[64] R6_2.5.1              textshaping_0.3.6     vroom_1.6.3
[67] evaluate_0.21         lattice_0.21-8        highr_0.10
[70] backports_1.4.1       broom_1.0.5           bslib_0.5.0
[73] Rcpp_1.0.11          svglite_2.1.1         gridExtra_2.3
```

References for R and packages used in this report from the `report::cite_packages()` command:

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