

ERPGs and TEELs for Chemicals of Concern: Rev. 20 – April 2004

Introduction

This document is TEELs Rev 20, April 9, 2004 (DKC-04-0003). Temporary Emergency Exposure Limits (TEELs) are provided for over twenty-five hundred chemicals. TEELs Rev 20 includes all chemicals for which AIHA Emergency Response Planning Guideline (ERPG) values had been issued to date¹, including the 2003 and 2004 documents. **These temporary emergency exposure limits are always subject to change.**

Table 1 is an alphabetical list of the chemicals substances and their Chemical Abstract Services Registry Numbers (CASRN), as well as some of their physical constants.

Table 2 is an alphabetical list of the ERPGs and TEELs for these chemicals. Values are given in parts per million (ppm) for gases and volatile liquids and in milligrams per cubic meter (mg/m^3) for particulate materials (aerosols) and nonvolatile liquids.

Table 3 is a list of TEELs sorted by Chemical Abstract Services Registry Number (CASRN).

Table 4 is an alphabetical list of the TEELs in mass per unit volume (mg/m^3) with the ppm to mg/m^3 conversion (carried out at 25°C and 760 mmHg) performed before rounding.

TEEL values that have been changed since the last revision (Rev 19) are indicated in the last column of Table 2. Chemicals added since publication of "TEELs Rev 19" are indicated.

The DOE SCAPA-approved methodology² was used to obtain hierarchy-derived TEELs. Subsequently, published toxicity parameters from SAX³ and RTECS⁴ were used to derive TEEL-2 and TEEL-3 values for chemicals lacking concentration-limit hierarchy-based values, as documented in a Westinghouse Savannah River Company Technical Report (WSRC-TR-98-00080)⁵ and in "Derivation of Temporary Emergency Exposure Limits (TEELs)."⁶ Several SCAPA-approved improvements to the TEEL-derivation methodology have been made since the above two documents were published (see Appendix 1). Hierarchy-based values are presented as given by the original source, but toxicity-based values are rounded down to powers of 10 of the bases 1, 1.25, 1.5, 2, 2.5, 3, 3.5, 4, 5, 6, or 7.5 (unless the derived value is within 5% of the limit above it, e.g., 290 is rounded to 300). Where applicable, conversion from ppm to mg/m^3 is made before rounding.

These temporary emergency exposure limits are always subject to change. If new concentration limits are issued (e.g., ERPGs, PELs or TLVs), or if new or additional toxicity data are found, TEELs will be revised. Further TEEL revisions will be issued as warranted.

ERPGs adopted through the 2004 ERPG set are on SCAPA's home page.

<http://www.orau.gov/emi/scapa/index.htm>. WSRC-TR-98-00080 is also available at that same web address. The most recent TEEL list revision may be found on DOE EH's Chemical Safety home page in both Adobe Acrobat format (.pdf) and as MS Excel tables http://tis-hq.eh.doe.gov/web/chem_safety/ under "Site Map", then "Chemical Management Tools".

Suggestions for improvement of this document, for chemicals to be added to the list, to the format, and other comments, are welcome. All chemicals for which TEELs are derived will be added to the list. Anyone deriving TEELs for chemicals not on the "TEELs Rev 20" list using

the published methodology is asked to send these to craigdk@earthlink.net or craigdk@comcast.net or to the SCAPA web site.

Notes for Tables

The Tables in this document are derived from an Excel Workbook. This has been considerably modified from that described in detail in reference 5, in that nearly all the Excel functions used to automatically calculate TEELs have been replaced by Visual Basic macros. This change reduced the size of the file by a factor of about five, and made the process of adding new chemicals to the list much simpler.

Chemicals whose names are boldface are chemicals for which there are official ERPGs 03/25/2004. "Added" means that the chemical has been added since "TEELs Rev 19". If a TEEL value has been changed in "TEELs Rev. 20" from previously recommended values, the affected values are indicated in the last column of Table 2. Changes from previous TEEL Revisions are usually the consequence of the correction or addition of data and rigid adherence to the above automated methodology⁵, any deviation from which is indicated. (See Appendix 1). The physicochemical data given in these tables is extracted from various sources, not all of which are in agreement with each other. However, the differences are not usually large enough to be of concern in the conduct of safety analyses. All molecular weights (MW) are given to two decimal places. The primary sources of these data are references 3, 4, 7, and 8.

The method for handling simple asphyxiants has been changed, as detailed in Appendix 2.

Abbreviations used are defined on pages (i) and (ii) of this document. **Hierarchy-based TEEL values** are obtained by strict application of the methodology (described in references 2, 5 and 6) except as noted below or indicated on Table 2.

Information pertinent to the derivation of hierarchy-based TEEL values:

Permissible exposure limits (PEL)⁹ used in earlier revisions of this document were vacated by Court order. Although these vacated values, adopted in 1989 (29 CFR 1910.1000-1910.1200, as of July 1, 1992) are more credible than the 1968 ACGIH TLV values to which the vacated PEL values reverted, they are no longer published in the Federal Register. Most OSHA (PEL), ACGIH (TLV)¹⁰, and NIOSH (REL)⁷ values used are taken from the "Guide to Occupational Exposure Values - 2003"¹¹, compiled by the American Conference of Governmental Industrial Hygienists. This publication also no longer lists vacated PEL values. WEEL¹ values are AIHA Workplace Environmental Exposure Level Guides TWA, STEL or C; "DFG"¹¹ represents concentration limits adopted by the Federal Republic of Germany.

For particulate materials, limits (in mg/m³) are for total dust, even though limits are sometimes also given for the respirable fraction;

PNOS = Particulates Not Otherwise Specified. This TLV-TWA value is for total dust, and the respirable fraction is assumed to be 30% of total concentration;

The note "1910.pqrs" refers to specific paragraphs in the Federal Register (29 CFR) regulating a particular chemical;

For substances that are in particulate form, TEEL-3 has an arbitrary maximum value of 500 mg/m³. This concentration constitutes an upper bound for a stable cloud of respirable dust. The reason for this is that the coagulation rate of particles is a function of the square of the **number** concentration. Higher concentrations are unstable;

Values are restricted by the hierarchy-based TEEL for the next higher category, e.g., TEEL-1 is restricted by the TEEL-2 so that **TEEL-0 ≤ TEEL-1 ≤ TEEL-2 ≤ TEEL-3**;

In a few instances, where the IDLH value for a chemical was less than a well-documented TEEL-2 value, the IDLH was not used as the TEEL-3. The IDLH documentation is not as rigorous as that for the 60-minute EEGL or TLV-C values;

For a few chemicals whose "official" ERPG-1 value was odor-based rather than toxicity-based, the TEEL-1 value was adjusted to the PEL-STEL, TLV-STEL, or 3 x TLV-TWA value. Where applicable, this is indicated in the last column of Table 2;

Some hierarchy-based TEEL-0 and TEEL-1 values are restricted by a PEL-C or TLV-C value, i.e., **TEEL-0 ≤ TEEL-1 ≤ PEL-C or TLV-C**;

In the absence of other concentration limits or appropriate toxicity data for a chemical, a few values are based on British, Finnish, Russian or other guidelines¹²;

The usual order of use of toxicity data for TEEL-2 and/or TEEL-3 is subordinate to human toxicity data for a particular chemical;

In the absence of both hierarchy- and toxicity-based TEELs, the following default ratios have been used:

$$\mathbf{TEEL-0 = (TEEL-1)/3}$$

if there is a TEEL-1;

$$\mathbf{TEEL-1 = (TEEL-0) \times 3}$$

if there is a hierarchy-based TEEL-0, and no PEL-STEL, TLV-STEL, PEL-C or TLV-C;

$$\mathbf{TEEL-1 = (TEEL-2)/7}$$

if there is a toxicity-based TEEL-2.

This is based on the mean ratio of existing ERPG-2s to ERPG-1s;

$$\mathbf{TEEL-2 = (TEEL-0) \times 5}$$

if there is a hierarchy-based TEEL-0, and no PEL-STEL, TLV-STEL, PEL-C or TLV-C;

$$\mathbf{TEEL-2 = (TEEL-3)/ 5}$$

if there is either a hierarchy-based or a toxicity-based TEEL-3.

This is based on the mean ratio of existing ERPG-3s to ERPG-2s;

$$\mathbf{TEEL-3 = (TEEL-2) \times 5}$$

if there is either a hierarchy-based TEEL-2 or a toxicity-based TEEL-2;

A few values depart from the usual guidelines, and are estimates based on existing concentration limits (at other TEEL values) and/or a comparison with similar chemicals and/or a review of available toxicity data. For example, the TEEL-3 value for 1-Bromo-3-chloro-5,5-

dimethylhydantoin is estimated from the toxicity-based TEEL-3 for 3-Bromo-1-chloro-5,5-dimethylhydantoin;

In a few instances, the toxicity-based TEELs were significantly **greater** than the hierarchy-based values and the latter (e.g., some HT-2s based on REL-Cs) were ignored. All TEELs other than hierarchy-based values are rounded.

Further Information

Because of its length, "TEELs Rev 20" is not available as a bound hard copy document. This included all the input data used to generate hierarchy-based TEELs (i.e., the first worksheet in the Excel workbook), and the selected toxicity data (based on the priority described in reference 5) used to derive toxicity-based TEELs), and the physicochemical data included in Table 1. It also included a table of hierarchy-based TEELs and a table of procedure-based TEEL-2 and TEEL-3 values.

Contact Douglas K. Craig for further information, at (386) 304-2524 (Nov. – April), (609) 296-1639 (May - October), (803) 599-4018 (cell), or by e-mail at either craigdk@earthlink.net (preferred in winter) or craigdk@comcast.net (summer) or the SCAPA web site,

References:

1. The AIHA 2003 Emergency Response Planning Guidelines and Workplace Environmental Exposure Level Guides Handbook. AIHA Press, Fairfax, Virginia (2003).
2. Craig, D.K., J.S. Davis, R. DeVore, D.J. Hansen, A.J. Petrocchi, and T.J. Powell. Alternative Guideline Limits for Chemicals without ERPGs. *Amer. Ind. Hyg. Assoc. J.* 56, 919-925 (1995).
3. Lewis, R.J., Sr.: Sax's Dangerous Properties of Industrial Materials, 10th Edition, John Wiley & Sons, New York, (1999). This publication is now available as a CD ROM (now from Wiley Environmental Science).
4. CHEM-BANK™ (August 2003) Databanks of potentially hazardous chemicals: RTECS^R – U.S. Department of Health and Human Services (NIOSH) Compact disc Vol. Id:RT25. SP-018-062 (SilverPlatter). This CD also includes other data bases, all of which have been scanned for pertinent data if necessary. These include: OHMTDS, TSCA and IRIS – US Environmental Protection Agency; CHRIS – U.S. Department of Transportation (Coast Guard); HSDB – U.S. Library of Medicine; NPG – U.S. National Institute for Occupational Safety and Health (NIOSH).
5. Craig, D.K. and C. Ray Lux: WSRC-TR-98-00080. Methodology for Deriving Temporary Emergency Exposure Limits (TEELs) (U). Westinghouse Savannah River Company, Aiken, SC (1998).
6. Craig, D.K., J.S. Davis, D.J. Hansen, A.J. Petrocchi, T.J. Powell, and T.E. Tuccinardi, Jr. Derivation of Temporary Emergency Exposure Limits. *J. Appl. Toxicol.* 20, 11-20 (2000).

7. NIOSH Pocket Guide to Chemical Hazards: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control (June 1990). A revised "Guide" was issued in June 1997, and the latest version is included in Ref. 4 above.
8. Lewis, R.J., Sr.: Hawley's Condensed Chemical Dictionary, 14th Ed. John Wiley & Sons, New York, (2001). This publication is available as a CD ROM.
9. Code of Federal Regulations, Title 29 – Labor, Part 1910.1000, Occupational Safety and Health Administration, Air Contaminants, Subpart Z: Toxic and Hazardous Substances. Tables Z-1, Z-2 and Z-3 (July 2002).
10. 2003 TLVs^R and BEIs^R Threshold Limit Values for Chemical Substances and Physical Agents: The American Conference of Governmental Industrial Hygienists (ACGIH), Cincinnati, OH (2003)
11. Guide to Occupational Exposure Values – 2003. Compiled by the American Conference of Governmental Industrial Hygienists, Cincinnati, OH (2003).
12. Occupational Exposure Limits for Airborne Toxic Substances. Third Edition: Values of Selected Countries prepared from the ILO-CIS Data Base of Exposure Limits, International Labor Office, Geneva (1991).

Appendix 1: Changes to TEEL-derivation methodology approved by SCAPA membership ballot in November 2001

1. Many hierarchy concentration limits (e.g., PELs, TLVs and RELs) for compounds are listed "... as Xy", (e.g., Antimony and compounds, as Sb; Calcium chromate, as Cr; Silver, soluble compounds, as Ag). Intertox changed concentration limits by the ratio of the specific compound to the element for these chemicals, taking into account the compound formulae. This was surely the intent of OSHA, ACGIH, and NIOSH in listing concentration limits this way; it seems logical to incorporate this change in deriving concentration-limit hierarchy-based TEELs. For example, zirconium (Zr) has a molecular weight of 91.22, whereas the molecular weight of zirconium chloride (Zr.Cl₄) is 233.02. The ratio of these molecular weights is 2.55. This is the factor by which the concentration limits (e.g., PEL-TWA = 5 mg/m³) for "Zirconium Compounds, as Zr" must be multiplied for Zr.Cl₄. Therefore, it was recommended to **"Adjust PEL, TLV, REL, MAK and OEL TWA, STEL and C concentration limits by the compound to element ratio. This simplifies the application of TEELs, and ensures that inappropriate adjustments will not be made. Toxicity-based TEELs (t-Ts) are already compound-specific, so need no adjustment"**.
2. TEEL-2 values are based on PEL, TLV, or REL ceiling (C) values, or on 5 x TLV-TWA, in order of availability. The ERPG-2 definition given below is frequently interpreted as the threshold concentration for serious or irreversible toxic effects. Concentration-limit hierarchy-based TEELs (HTs) are frequently much lower than the applicable toxicity data that are available for a chemical would indicate for this threshold. A partial resolution to this problem would be addition of a step to test for large differences between concentration-limit and toxicity-based TEEL-2 and TEEL-3 values. Therefore, it was recommended to **"Test HTs based on PEL-C (15-minute regulatory limit for workers), TLV-C (well-documented 15-minute per day limit for workers), REL-Cs or 5 x TLV-TWAs against toxicity-based TEEL-2s (t-Ts by all routes of intake).**

If $10 < t\text{-T to HT ratio} < 100$, then set $\text{TEEL-2} = \text{HT} \times 10$

If $t\text{-T to HT ratio} > 100$, then set $\text{TEEL-2} = \text{HT} \times 100$

The usual constraint that $\text{TEEL-2} \leq \text{TEEL-3}$ applies.

TEEL-3s are currently toxicity-based if there is no IDLH".

3. Existing Route Adjustment Factors (RAFs) are arbitrary, and were based on scientific judgment. It was, for example, assumed that intravenously (iv) injected compounds would be quantitatively absorbed, so iv administration was assigned an RAF of 1, compared with 0.25 for orally (os) ingested or administered material. This means that it was assumed that four times as much compound needed to be ingested to elicit the same toxic response as the iv-administered compound. This issue was addressed by applying the existing TEEL-derivation methodology to all available acute toxicity data (i.e., for different routes of administration) for 90 chemicals for which ERPGs had been published at the time. To avoid interspecies differences, only rat data were used for this analysis. Rat oral LD_{50} data were used as the basis for comparison because of the relative abundance of such data. There were sufficient data for three common routes of administration in toxicity studies, namely intraperitoneal (ip), intravenous (iv), and dermal uptake (sk). These analyses showed that current RAFs (RAF-C) for three routes should be revised (RAF-R). Toxic compounds administered by these routes were not as effective relative to oral intake as originally assumed. Therefore, it was recommended to **"Adopt the revised RAFs, which are more soundly based than the existing RAFs"**.

Appendix 2: TEELs for Simple Asphyxiants.

All simple asphyxiants are assigned TEEL values based upon oxygen concentration:

TEEL-0 = 60,000 ppm resulting in an O₂ conc. of about 19.5%, which is OSHA's lower limit for confined space entry in 29 CFR 1915.12 (a)(2).

TEEL-1 = 145,000 ppm resulting in an O₂ conc. of about 18% beginning to produce "decreased ability to work strenuously"

TEEL-2 = 280,000 ppm resulting in an O₂ conc. of about 15% beginning to produce "impaired coordination, perception, and judgment" thereby beginning to deprive a person of the ability to protect himself/herself or perform self-rescue.

TEEL-3 = 500,000 ppm resulting in an O₂ conc. of about 10% beginning to produce "unconsciousness" and then death.

However, should the chemical substance have a lower explosive limit (LEL) that is less than these values, TEELs are limited to the LEL.

TEELs are dynamic, and change when input data changes (e.g., ERPGs, PEL-TWAs, new acute toxicity). Inconsistencies or errors (often pointed out by users) are corrected as necessary. All changes from previous TEEL list revisions are indicated in the TEEL tables. Adoption of these changes bolsters scientific creditability of TEELs.

Definition of TEELs:

TEELs are intended for use until Emergency Response Planning Guidelines (ERPGs) are adopted for chemicals. Therefore, with the exception of the recommended averaging time, TEELs 1, 2, and 3 have the same definitions as the equivalent ERPG. These are:

ERPG-1 The maximum concentration in air below which it is believed nearly all individuals could be exposed for up to one hour without experiencing other than mild transient adverse health effects or perceiving a clearly defined objectionable odor.

ERPG-2 The maximum concentration in air below which it is believed nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms that could impair their abilities to take protective action.

ERPG-3 The maximum concentration in air below which it is believed nearly all individuals could be exposed for up to one hour without experiencing or developing life-threatening health effects.

Temporary Emergency Exposure Limits (TEELs)

TEEL-0 The threshold concentration below which most people will experience no adverse health effects.

TEEL-1 Same as ERPG-1

TEEL-2 Same as ERPG-2

TEEL-3 Same as ERPG-3

It is recommended that for application of TEELs, concentration at the receptor point of interest be calculated as the peak fifteen-minute time-weighted average concentration. It should be emphasized that TEELs are default values, following the published methodology explicitly. The only judgment involved is that exercised in the extraction of data used to calculate the recommended TEELs.

Key to Abbreviations

abs – absolute	flash p - flash point
ACGIH - American Conference of Governmental Industrial Hygienists	FP, fp - freezing point
af - atomic formula	g, gm. - gram
AIHA - American Industrial Hygiene Association	glac - glacial
alc - alcohol	gran - granular, granules
alk - aflWine	hygr - hygroscopic
amorph - amorphous	H, hr - hour(s)
anhyd -anhydrous	HR - Hazard Rating (SAX)
approx - approximately	htd - heated
aq -aqueous	htg - heating
at, atm - atmosphere	IARC - International Agency for Research on Cancer
autoign - autoignition	immisc - immiscible
aw - atomic weight	incomp - incompatible
BEI - ACGIH Biological Exposure Indexes	insol - insoluble
BP, bp - boiling point	IU - International Unit
b range - boiling range	kg - kilogram (one thousand grams)
CASRN - Chemical Abstracts Service Registry Number	L,I - liter
cc - cubic centimeter	LEL, lel - lower explosive limit
CC - closed cup	liq -7 liquid
CL - ceiling concentration	M - minute(s)
COC - Cleveland open cup	m ³ _ cubic meter
conc - concentration, concentrated	mf - molecular formula
compd(s) - compounds)	mg - milligram
contg - containing	misc - miscible
cryst, crys - crystal(s), crystalline	μ, u - micron
d - density	mL, ml - milliliter
D - day(s)	mm. - millimeter
decomp, dec - decomposition	mmHg - pressure in millimeters of mercury
deliq - deliquescent	mod - moderately
dil - dilute	MP, mp - melting point
DOT - U.S. Department of Transportation	mppcf - million particles per cubic foot
EPA - U.S. Environmental Protection Agency	MW, mw - molecular weight
ERPG - Emergency Response Planning Guidelines of the AIHA	ng - nanogram
eth - ether	NIOSH - National Institute for Occupational Safety and Health
expls - explodes	nonflam - nonflammable
(F) - Fahrenheit	NTP - National Toxicology Program
FCC - Food Chemical Codex	OBS - obsolete
FDA - U.S. Food and Drug Administration	OC - open cup
fibrs - fibers	org - organic
flam - flammable	OSHA-Occupational Safety and Health Administration
	Pa - Pascals

Key to Abbreviations (cont.)

PEL - permissible exposure level	TEEL - Temporary Emergency Exposure Limits
petr - petroleum	temp - temperature
pg - picogram (one trillionth of a gram)	μ, u - micron
Pk - peak concentration	TLV - Threshold Limit Value
pmole - picomole	TOC - Tag open cup
powd - powder	TWA - time weighted average
ppb - parts per billion (v/v)	U, unk - unknown, unreported
pph - parts per hundred (v/v)(percent)	UEL, uel - upper explosive limit
ppm - parts per million (v/v)	μg, ug - microgram
ppt - parts per trillion (v/v)	ULC, ulc -Underwriters Laboratory Classification
prep - preparation	USDA - U.S. Department of Agriculture
press - under pressure	vac - vacuum
PROP - properties	vap -vapor
Pwdr - powder	vap d - vapor density
rhomb - rhombic	Vapor Press, vap press - vapor pressure
SAX Number - each chemical's identifying code as used in SAX3	Vol - volume
SCAPA - Subcommittee on Consequence Assessment and Protective Actions	visc - viscosity
S, sec - second(s)	vsol - very soluble
SAR – Structure Activity Relationships	W - week(s)
Si, sit, sitly - slightly	Y - year(s)
SG - specific gravity	% - percent(age)
sol - soluble	> - greater than
soln - solution	< - less than
solv(s) - solvent(s)	< = - equal to or less than
spont - spontaneously	> = equal to or greater than
STEL - short term exposure limit	° - degrees
subl - sublimes	°C - temperature in Celsius (Centigrade)
TCC - Tag closed cup	(F), °F - temperature in Fahrenheit
tech - technical	

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1	Acacia; (Gum Arabic)	9000-01-5	200	500	500	500	mg/m3	Added
2	Acenaphthene; (1,3-Acenaphthalene)	83-32-9	0.4	1.25	7.5	250	mg/m3	
3	Acenaphthylene	208-96-8	0.06	0.2	1.25	500	mg/m3	
4	Acetaldehyde	75-07-0	10	10	200	1000	ppm	ERPG-1, -2, -3 reviewed, unchanged
5	Acetamide	60-35-5	25	75	500	500	mg/m3	
6	Acetic acid	64-19-7	5	5	35	250	ppm	New ERPG-1, -2, -3. T-0, -1, -3 changed
7	Acetic acid, 2-propenyl ester	591-87-7	0.5	1.5	10	50	ppm	
8	Acetic Anhydride	108-24-7	5	5	5	200	ppm	
9	Acetone	67-64-1	1000	1000	8500	8500	ppm	
10	Acetone thiosemicarbazide	1752-30-3	20	60	100	100	mg/m3	
11	Acetonitrile	75-05-8	40	60	60	500	ppm	
12	Acetophenone	98-86-2	10	30	50	350	mg/m3	
13	Acetoxytriphenylstannane	900-95-8	0.35	0.6	20	50	mg/m3	
14	Acetyl bromide	506-96-7	0.2	0.6	4	20	ppm	
15	Acetyl chloride	75-36-5	0.0025	0.0075	0.05	125	ppm	
16	Acetylaminofluorene, 2-	53-96-3	0.25	0.75	6	30	mg/m3	Name spelling corrected

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
17	Acetylaminofluorenone, 2-	3096-50-2	0.75	2.5	15	75	mg/m3	
18	Acetylene	74-86-2	2500	2500	2500	6000	ppm	
19	Acrolein	107-02-8	0.1	0.1	0.5	3	ppm	ERPG-1, -2, -3
20	Acrylamide	79-06-1	0.3	0.3	60	60	mg/m3	
21	Acrylic acid	79-10-7	2	2	50	750	ppm	ERPG-1, -2, -3
22	Acrylic acid polymers; (Acrylic polymer or resin)	9003-01-4	10	30	200	500	mg/m3	
23	Acrylonitrile	107-13-1	2	10	35	75	ppm	ERPG-1, -2, -3
24	Acrylyl chloride; (Acryloyl chloride)	814-68-6	0.05	0.15	0.25	10	ppm	
25	Adipic acid	124-04-9	5	5	5	125	mg/m3	
26	Adiponitrile	111-69-3	2	3.85	4	150	ppm	
27	Agar	9002-18-0	500	500	500	500	mg/m3	
28	Agarose, type VII (low gelling temperature)	9012-36-6	10	30	50	250	mg/m3	Added. TSCA-listed, no toxicity data.
29	Albumin (bovine)	9048-46-8	150	500	500	500	mg/m3	Added. RTECS and Merck gives as "human" rather than "bovine"
30	Alcohols, C6-C12 (N.O.S.)	68603-15-6	10	30	50	250	mg/m3	
31	Aldrithiol	2127-03-9	10	30	50	250	mg/m3	Added. Not found in databases, used PNOS default
32	Aliquat 336; (Adogen 464; Quaternary ammonium compounds, tri(C8-10)-alkylmethyl-, chlorides)	63393-96-4	30	75	500	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
33	Alkenyl dimethylethyl ammonium bromide; (Aliphatic hydrocarbon)	977044011	2	6	40	200	mg/m3	CASRN ex LANL added, name in RTECS
34	Alkyd resins and rosin	66070-62-0	10	30	50	250	mg/m3	
35	Alkyl benzenes (C8-C9)	68515-28-3	10	30	50	250	mg/m3	
36	Alkyl dimethylbenzyl ammonium chloride; (Benzalkonium chloride)	8001-54-5	7.5	20	100.0	100	mg/m3	Added
37	Alkylamines (includes nitrogen mustard, triethylmelamine, etc.)	63231-48-1	10	30	50	250	mg/m3	
38	Alkylbenzene (C10-C16)	68648-87-3	10	30	50	500	mg/m3	
39	Allene; (1,2-Propadiene)	463-49-0	40	125	750	4000	ppm	
40	Allyl alcohol	107-18-6	2	4	15.2	20	ppm	
41	Allyl Bromide; (3-Bromopropene)	106-95-6	4	12.5	75	400	ppm	Synonym spelling corrected
42	Allyl chloride	107-05-1	1	3	40	300	ppm	ERPG-1, -2, -3
43	Allylamine	107-11-9	0.06	0.2	1.37	30	ppm	
44	Aluminon	569-58-4	0.0004	0.001	0.0075	500	mg/m3	
45	Aluminum (powder)	7429-90-5	15	30	50	250	mg/m3	
46	Aluminum carbide	1299-86-1	2.5	7.5	12.5	60	mg/m3	Added. TSCA listed, no toxicity data; reacts with H2O
47	Aluminum chloride	7446-70-0	10	10	50	500	mg/m3	
48	Aluminum chloride hexahydrate	7784-13-6	15	25	75	500	mg/m3	Added

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
49	Aluminum fluoride	7784-18-1	6	6	7.5	40	mg/m3	
50	Aluminum grey; (Chromium compound; Acid black 60)	12218-95-0	7.5	25	40	400	mg/m3	Added. CASRN TSCA listed Cr compound, no Al in MF
51	Aluminum hydroxide	21645-51-2	4	12.5	125	125	mg/m3	
52	Aluminum oxide; (... powder; Alumina)	1344-28-1	15	15	15	25	mg/m3	
53	Aluminum phosphate; (Phosphoric acid, aluminum salt (1:1), solution)	7784-30-7	7.5	22.5	37.5	500	mg/m3	
54	Aluminum phosphide	20859-73-8	4	4	20	20	mg/m3	
55	Aluminum potassium sulfate	10043-67-1	20	60	100	500	mg/m3	
56	Aluminum potassium sulfate, dodecahydrate	7784-24-9	35	100	150	500	mg/m3	Added
57	Aluminum sulfate	10043-01-3	12.5	35	60	500	mg/m3	
58	Aluminum yellow 4A; (Chromium compound; Acid yellow 39)	10343-58-5	12.5	35	60	300	mg/m3	Added. CASRN TSCA listed Cr compound, no Al in MF
59	Aluminum(III) nitrate (1:3)	13473-90-0	15	45	75	500	mg/m3	
60	Aluminum(III) nitrate nonahydrate (1:3:9)	7784-27-2	25	25	125	500	mg/m3	
61	Aluminum(III)silicate (2:1); (Kyanite; Oil-dri)	1302-76-7	6	15	30	150	mg/m3	Synonym added
62	Amberlite	37380-43-1	10	30	50	200	mg/m3	Added. Not listed, but used Amberlite-LA-1, CASRN = 12642-13-6, rat ip LD50= 500 mg/kg
63	Amberlite IR-120(PLUS) ion-exchange resin	78922-04-0	10	30	50	200	mg/m3	Added. Not listed, but used Amberlite-LA-1, CASRN = 12642-13-6, rat ip LD50= 500 mg/kg

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
64	Amberlite MB-1 ion-exchange resin	100915-96-6	10	30	50	200	mg/m3	Added. Not listed, but used Amberlite-LA-1, CASRN = 12642-13-6, rat ip LD50= 500 mg/kg
65	Amberlite XAD-16, -7, -4 resin	104219-63-8	10	30	50	200	mg/m3	Added. Not listed, but used Amberlite-LA-1, CASRN = 12642-13-6, rat ip LD50= 500 mg/kg
66	Amberlite XAD-2 resin, purified	9060-05-3	10	30	50	200	mg/m3	Added. Not listed, but used Amberlite-LA-1, CASRN = 12642-13-6, rat ip LD50= 500 mg/kg
67	Amberlyst 15 ion-exchange resin	9037-24-5	10	30	50	250	mg/m3	Added. Not found in databases, PNOS default used.
68	Amino-1,3-naphthalenedisulfonic acid, 7-	86-65-7	5	15	100	500	mg/m3	
69	Amino-2,6-dinitrotoluene, 4-; (4-Amino-3,5-dinitrotoluene)	6393-42-6	2.5	7.5	50	250	mg/m3	
70	Amino-2-methyl-2-propanol, 1-	2854-16-2	10	30	200	500	mg/m3	
71	Amino-4,6-dinitrotoluene, 2-	35572-78-2	6	15	125	500	mg/m3	
72	Aminoanthraquinone, 2-	117-79-3	7.5	25	150	500	mg/m3	
73	Aminobutyl)diethoxymethylsilane, (4-	3037-72-7	2	6	45	45	mg/m3	
74	Aminodiphenyl, p-	92-67-1	0.5	1.5	10	200	mg/m3	
75	Aminoethylpiperazine, n-	140-31-8	2.5	7.5	50	500	mg/m3	
76	Aminoheptane, 3-; (3-Heptylamine)	28292-42-4	0.06	0.15	1.25	6	ppm	
77	Aminophenol, 2-; (Aminophenol, o-)	95-55-6	0.5	1.5	10	500	mg/m3	Name changed

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
78	Aminopropiophenone, 4-	70-69-9	1	3.5	5.6	75	mg/m3	
79	Aminopterin; (Aminopteridine)	54-62-6	5	15	25	25	mg/m3	.
80	Aminopyrazine	5049-61-6	0.5	1.5	2.5	5	ppm	SAR
81	Aminopyridine, 4-; (4-Pyridinamine)	504-24-5	4	12.5	20	20	mg/m3	.
82	Amiton oxalate	3734-97-2	0.6	1.5	3	3	mg/m3	
83	Amiton; (O,O-Diethyl-S-(2-diethylaminoethyl) thiophosphate)	78-53-5	0.6	2	3.3	3.3	mg/m3	
84	Amitrole	61-82-5	0.2	0.6	100	500	mg/m3	
85	Ammonia	7664-41-7	25	25	150	750	ppm	ERPG-1, -2, -3
86	Ammonium acetate	631-61-8	2.5	7.5	50	250	mg/m3	
87	Ammonium aluminum fluoride; (Triammonium hexafluoroaluminate)	7784-19-2	4	4	4	15	mg/m3	
88	Ammonium benzoate	1863-63-4	3.5	10	75	350	mg/m3	
89	Ammonium bicarbonate	1066-33-7	2	6	40	200	mg/m3	
90	Ammonium bisulfate; (Ammonium hydrogen sulfate)	7803-63-6	10	10	10	10	mg/m3	
91	Ammonium bisulfite; (Ammonium hydrogen sulfite)	10192-30-0	10	10	10	10	mg/m3	Synonym changed
92	Ammonium carbamate; (Carbamic acid, ammonium salt)	1111-78-0	0.3	1	6	35	mg/m3	
93	Ammonium carbonate	506-87-6	0.75	2.5	15	75	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
94	Ammonium chloride	12125-02-9	10	20	50	500	mg/m3	
95	Ammonium chromate	7788-98-9	0.05	0.1	0.1	15	mg/m3	
96	Ammonium citrate	7632-50-0	10	10	30	150	mg/m3	
97	Ammonium citrate, dibasic	3012-65-5	10	10	10	10	mg/m3	
98	Ammonium dichromate (as Cr(VI))	7789-09-5	0.125	0.25	0.25	35	mg/m3	
99	Ammonium dihydrogen phosphate; (Monoammonium phosphate)	7722-76-1	15	50	350	500	mg/m3	
100	Ammonium ferrous sulfate hexahydrate	7783-85-9	1	3	5	500	mg/m3	"Hexahydrate" added to name
101	Ammonium fluoborate	13826-83-0	3.5	3.5	6	20	mg/m3	
102	Ammonium fluoride	12125-01-8	5	5	5	12.5	mg/m3	
103	Ammonium formate	540-69-2	10	30	50	500	mg/m3	
104	Ammonium hexachlorohydrate (III)	z-0001	10	30	50	250	mg/m3	
105	Ammonium hexafluorosilicate; (Ammonium silicofluoride)	16919-19-0	4	10	20	30	mg/m3	
106	Ammonium hydrogen fluoride; (Ammonium bifluoride)	1341-49-7	3.5	3.5	3.5	3.5	mg/m3	Name changed
107	Ammonium hydroxide (as NH3)	1336-21-6	25	35	35	35	ppm	
108	Ammonium iodide	12027-06-4	1.5	4	30	150	mg/m3	
109	Ammonium lactate	52003-58-4	10	30	50	250	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
110	Ammonium lignin sulfonate	8061-53-8	10	30	50	250	mg/m3	CASRN ex LANL added
111	Ammonium molybdate	13106-76-8	10	30	50	150	mg/m3	
112	Ammonium molybdate(VI) tetrahydrate	12054-85-2	15	15	30	500	mg/m3	Added. Used HSDB data
113	Ammonium molybdophosphate	12026-66-3	7.5	25	40	200	mg/m3	CASRN ex LANL added
114	Ammonium nickel sulfate	15699-18-0	1.5	1.5	2.5	50	mg/m3	
115	Ammonium nitrate	6484-52-2	10	10	10	500	mg/m3	
116	Ammonium oxalate monohydrate	5972-73-6	1.5	4	30	150	mg/m3	This CASRN in H&N, with MW = 125.08
117	Ammonium oxalate; (Ammonium oxalate hydrate)	6009-70-7	1.5	4	30	150	mg/m3	This name & CASRN in CHRIS & OHMTADS
118	Ammonium oxalate; (Ethanedioic acid, diammonium salt)	1113-38-8	0.15	0.5	4	20	mg/m3	Synonym name corrected
119	Ammonium pentaborate	12007-89-5	10	30	50	250	mg/m3	
120	Ammonium perchlorate	7790-98-9	5	15	100	500	mg/m3	
121	Ammonium permanganate	13446-10-1	0.2	3	5	500	mg/m3	
122	Ammonium persulfate	7727-54-0	0.1	0.3	0.5	100	mg/m3	
123	Ammonium phosphate dibasic	7783-28-0	10	30	50	250	mg/m3	
124	Ammonium picrate	131-74-8	10	30	50	250	mg/m3	
125	Ammonium sulfamate	7773-06-0	10	30	50	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
126	Ammonium sulfate	7783-20-2	40	125	500	500	mg/m3	
127	Ammonium sulfide	12135-76-1	3.5	10	15	15	ppm	
128	Ammonium sulfite	10196-04-0	10	10	10	10	mg/m3	
129	Ammonium tartrate	14307-43-8	10	10	10	10	mg/m3	
130	Ammonium tartrate; (Diammonium tartrate)	3164-29-2	1.5	5	40	200	mg/m3	
131	Ammonium thiocyanate	1762-95-4	12.5	35	200	200	mg/m3	
132	Ammonium thiosulfate; (Ammonium hyposulfite)	7783-18-8	10	30	50	500	mg/m3	
133	Ammonium vanadate; (Ammonium vanadium oxide; Ammonium metavanadate)	7803-55-6	0.03	0.1	0.3	3.5	mg/m3	
134	Ammonium, hexadecyltrimethyl-, bromide; (Hexadecyltrimethylammonium bromide)	57-09-0	0.035	0.1	0.75	150	mg/m3	Name corrected
135	Amosite	12172-73-5	0.005	0.025	2.5	12.5	mg/m3	
136	Amphetamine; (Benzedrine)	300-62-9	4	12.5	20	20	mg/m3	
137	Amyl acetate	628-63-7	100	100	100	1000	ppm	
138	Amyl alcohol; (1-Pentanol)	71-41-0	100	100	100	500	ppm	Removed "mixed isomers" from name
139	Amylamine, n-; (1-Pentylamine)	110-58-7	0.3	0.75	6	30	mg/m3	
140	Anhydrone; (Magnesium perchlorate)	10034-81-8	10	15	50	500	mg/m3	
141	Aniline	62-53-3	5	6	10	100	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
142	Anisidine, o-	90-04-0	0.5	1.5	2.5	50	mg/m3	
143	Anisidine, p-	104-94-9	0.5	1.5	2.5	50	mg/m3	
144	Anisole; (Anisole anhydrous; Methoxybenzene)	100-66-3	4	12.5	75	400	mg/m3	Added.
145	Anthracene	120-12-7	2	6	40	150	mg/m3	
146	Anthracenedisulfonic acid, 2,6-; (Acid Blue 45; Alizarine Blue)	2861-02-1	12.5	35	250	500	mg/m3	Added. Listed in RTECS & TSCA, not as "Aluminum Blue A"
147	Anthraquinone	84-65-1	10	30	50	500	mg/m3	Changed name, removing "dye"
148	Antimony	7440-36-0	0.5	1.5	25	50	mg/m3	
149	Antimony oxide	1309-64-4	0.6	1.5	3	60	mg/m3	
150	Antimony pentachloride	7647-18-9	1.25	3.5	6	125	mg/m3	
151	Antimony pentafluoride	7783-70-2	0.75	0.75	2.7	75	mg/m3	
152	Antimony pentasulfide	1315-04-4	0.75	2.5	4.00	75	mg/m3	
153	Antimony potassium tartrate trihydrate	28300-74-5	1.25	4	6	125	mg/m3	Removed "sans trihydrate" from name
154	Antimony trichloride	10025-91-9	0.75	0.75	0.75	75	mg/m3	
155	Antimony trifluoride	7783-56-4	0.75	2.25	3.75	75	mg/m3	
156	Antimycin A	1397-94-0	0.35	1	1.8	12.5	mg/m3	
157	Antioxidant G-16 (most toxic antiox)	61373-87-3	10	30	50	125	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
158	Aqua regia (75% hydrochloric + 25% nitric acid)	8007-56-5	0.75	4	30	150	mg/m3	
159	Arginine, L-	74-79-3	10	30	50	250	mg/m3	
160	Argon	7440-37-1	60000	145000	280000	500000	ppm	Simple asphyxiant (see Introduction). T-0, -1, -2 changed
161	Argon, cryogenic	7440-37-2	60000	145000	280000	500000	ppm	As Ar, simple asphyxiant (see Introduction), last digit of CASRN changed for sorting. T-0, -1, -2 changed
162	Aromatic hydrocarbon solvents; (High flash naphtha distillates; Solvent naphtha (petroleum), light aromatic)	64742-95-6	500	750	750	750	ppm	
163	Arsenic (& inorganic compounds)	1327-53-3	0.01	0.03	5	5	mg/m3	
164	Arsenic (organic compounds as As)	7440-38-2	0.5	1.5	2.5	350	mg/m3	
165	Arsenic acid	1327-52-2	0.015	0.05	0.75	50	mg/m3	
166	Arsenic acid; (o-arsenic acid)	7778-39-4	0.015	0.045	0.075	7.5	mg/m3	
167	Arsenic pentoxide	1303-28-2	0.015	0.045	7.5	7.5	mg/m3	
168	Arsenious acid	13464-58-9	0.015	0.045	1.4	7.5	mg/m3	
169	Arsenous trichloride	7784-34-1	0.025	0.075	1.35	12.5	ppm	
170	Arsine	7784-42-1	0.05	0.075	0.5	1.5	ppm	ERPG-2, -3
171	Asbestos	1332-21-4	0.005	0.5	0.5	2.5	mg/m3	
172	Asbestos (Chrysotile)	12001-29-5	0.005	0.5	50	250	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
173	Ascaridole	512-85-6	6	20	75	75	mg/m3	
174	Ascarite; (Asbestos, 1332-21-4)	81133-20-2	0.005	0.5	0.5	2.5	mg/m3	Added. Commercial name, used asbestos limits
175	Ascorbic acid	50-81-7	60	200	500	500	mg/m3	
176	Asphalt; (Bitumen)	8052-42-4	0.5	1.5	50	250	mg/m3	See also Petroleum asphalt, SAX PCR500
177	Auramine; (4.4-(Imidocarbonyl)bis(n,n-dimethylamine), monohydrochloride)	2465-27-2	10	30	50	60	mg/m3	"monohydrochloride" added to synonym
178	Azaserine; (L-Serine, diazoacetate (ester))	115-02-6	0.0125	0.04	0.25	75	mg/m3	
179	Azinphos ethyl; (Ethyl guthion)	2642-71-9	0.75	2	4	150	mg/m3	
180	Azinphos methyl	86-50-0	0.2	0.6	0.7	10	mg/m3	
181	Azodicarbamide; (Azodicarbonamide)	123-77-3	40	125	200	200	mg/m3	
182	Bacto-peptone	118-01-8	10	30	50	250	mg/m3	Added. Not found in databases, PNOS default used.
183	Barbituric acid	67-52-7	10	10	40	200	mg/m3	
184	Barium	7440-39-3	0.5	1.5	25	125	mg/m3	
185	Barium acetate; (Barium acetate anhydrous)	543-80-6	0.75	2.5	4	75	mg/m3	Added.
186	Barium carbonate	513-77-9	0.3	0.75	6	500	mg/m3	
187	Barium chloride	10361-37-2	0.5	1.5	2.5	50	mg/m3	
188	Barium chloride dihydrate	10326-27-9	0.75	2.5	4	75	mg/m3	Added.

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
189	Barium chromate	10294-40-3	0.25	0.5	0.5	75	mg/m3	
190	Barium cyanide	542-62-1	0.6	2	3.5	60	mg/m3	
191	Barium dioxide; (Barium peroxide)	1304-29-6	0.6	0.6	1.5	7.5	mg/m3	
192	Barium diphenylamine sulfonate	6211-24-1	2	6	10	200	mg/m3	
193	Barium fluoride	7787-32-8	0.6	2	3	100	mg/m3	
194	Barium hydrogen phosphate; (Barium phosphate dibasic)	10048-98-3	0.75	2.5	4	20	mg/m3	
195	Barium hydroxide	17194-00-2	0.6	1.5	3	100	mg/m3	
196	Barium hydroxide octahydrate	12230-71-6	1	3	5	100	mg/m3	Added. Mouse LD50 is for barium hydroxide
197	Barium metaborate	13701-59-2	10	30	200	500	mg/m3	
198	Barium nitrate	10022-31-8	0.75	2	3.75	75	mg/m3	T-1, -2 changed
199	Barium nitrite	13465-94-6	0.75	2.5	4	20	mg/m3	TSCA, HC&P CASRN replaced LANL value of 10022-31-8
200	Barium oxide	1304-28-5	0.5	1.5	2.5	50	mg/m3	
201	Barium permanganate	7787-36-2	1.25	7.5	12.5	500	mg/m3	
202	Barium phosphate	13466-20-1	0.75	2	4	20	mg/m3	CASRN ex LANL added
203	Barium stearate	6865-35-6	15	50	350	500	mg/m3	Added. SAX & TSCA have H7Z, MW=706.4; RTECS & H&N have H70, MW=704.40
204	Barium sulfate	7727-43-7	15	30	50	250	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
205	Basic Green 4; (Aizen malachite green)	569-64-2	0.35	1	6	35	mg/m3	.
206	Basic Red 1; (Rhodamine 6G extra base)	989-38-8	0.025	0.075	0.6	2.5	mg/m3	
207	Bathophenanthroline; (Use 1,10-o-Phenanthroline)	66-71-7	0.1	0.3	2	30	mg/m3	
208	Bentonite; (Clay absorbent)	1302-78-9	10	30	50	50	mg/m3	Name changed
209	Benzal chloride	98-87-3	0.4	1.25	2.3	500	mg/m3	
210	Benzaldehyde	100-52-7	6	15	125.000	500	mg/m3	
211	Benzamide	55-21-0	3	10	60	350	mg/m3	
212	Benzene	71-43-2	1	50	150	1000	ppm	ERPG-1, -2, -3
213	Benzene D6	1076-43-3	1	50	150	1000	ppm	Added. TSCA listed, no toxicity data, use benzene limits
214	Benzene hexachloride; (Hexachlorocyclohexane, mixed isomers)	608-73-1	0.15	0.5	4	40	mg/m3	Synonym added
215	Benzene, 1-(chloromethyl)-4-nitro-; (p-Nitrobenzyl chloride)	100-14-1	5	15	28	125	mg/m3	
216	Benzenearsonic acid; (Phenylarsonic acid)	98-05-5	0.27	0.27	0.27	0.27	mg/m3	
217	Benzenesulfonic acid chloride; (Benzenesulfonyl chloride)	98-09-9	0.5	1.5	200	200	mg/m3	
218	Benzenethiol; (Thiophenol; Phenyl mercaptan)	108-98-5	0.3	0.4	3.00	3.5	ppm	
219	Benzidene	92-87-5	0.15	0.5	3.5	125	mg/m3	
220	Benzo(a)anthracene	56-55-3	0.1	0.3	2	15	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
221	Benzo(a)pyrene; (Coal tar pitch volatiles)	50-32-8	0.2	0.6	10	80	mg/m3	
222	Benzo(e)acephenanthrylene; (Benz(b)fluoroanthene)	205-99-2	0.2	0.6	4	20	mg/m3	Synonym spelling corrected
223	Benzo(ghi)perylene	191-24-2	10	30	50	250	mg/m3	
224	Benzo(k)fluoranthene	207-08-9	0.2	0.6	4	20	mg/m3	
225	Benzoic acid	65-85-0	4	12.5	75	400	mg/m3	
226	Benzonitrile	100-47-0	2.5	7.5	60	300	mg/m3	
227	Benzophenone	119-61-9	2	6	40	500	mg/m3	Added.
228	Benzoquinone, p-; (Quinone)	106-51-4	0.1	0.3	0.5	22.6	ppm	T-3 changed
229	Benzotrifluoride	98-08-8	6	15	30	500	mg/m3	
230	Benzoyl chloride	98-88-4	0.5	0.5	0.5	60	ppm	
231	Benzoyl peroxide	94-36-0	5	5	15	500	mg/m3	
232	Benzyl alcohol	100-51-6	4	12.5	100	200	ppm	
233	Benzyl chloride	100-44-7	1	1	10	25	ppm	ERPG-1, -2, -3
234	Benzyl cyanide; (Phenylacetonitrile)	140-29-4	0.2	0.6	4.3	30	mg/m3	
235	Benzyl trichloride; (Trichloromethylbenzene)	98-07-7	0.1	0.1	6	25	mg/m3	
236	Benzylbutylester phthalic acid; (Benzyl butyl phthalate)	85-68-7	5	15	500	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
237	Benzyltrimethyloctadecylammonium chloride; (Dimethyloctadecylbenzylammonium chloride)	122-19-0	5	15	100	500	mg/m3	Name changed
238	Beryllium	7440-41-7	0.002	0.005	0.025	0.1	mg/m3	ERPG-2, -3
239	Beryllium chloride	7787-47-5	0.015	0.04	0.04	35	mg/m3	T-2 changed
240	Beryllium fluoride	7787-49-7	0.01	0.025	0.025	20	mg/m3	T-2 changed
241	Beryllium hydroxide	13327-32-7	0.01	0.025	0.25	20	mg/m3	
242	Beryllium nitrate	13597-99-4	0.03	0.075	7.5	60	mg/m3	
243	Beryllium oxide	1304-56-9	0.005	0.0125	1.25	10	mg/m3	T-1, -2 changed
244	Bicyclo(2.2.1)heptane-2-carbonitrile, 5-chloro-6- (((methylamino)carbonyloxy)imino)-, (1s-(1- alpha,2-beta,4-alpha,5-alpha,6E))-	15271-41-7	3.5	10	19	19	mg/m3	
245	Bio-Rad AG1-X8 anion exchange resin, formate form	60177-39-1	10	30	50	250	mg/m3	Added. TSCA listed, no toxicity data
246	Bioxirane, 2,2-; (1,2:3,4-Diepoxybutane)	1464-53-5	0.04	0.125	1.0	10	ppm	
247	Biphenylol, sodium salt, 2-;	132-27-4	2.5	7.5	60	300	mg/m3	Name spelling corrected
248	Bis(1,1-dimethylethyl)-4-ethylphenol, 2,6-	4130-42-1	4	12.5	75.00	400	mg/m3	Listed in TSCA & HC&P; LD50 estimated from CASRN = 128-37-0
249	Bis(1,1-dimethylethyl)-4-methylphenol, 2,6-; (BHT (food grade); 2,6-Di-tert-butyl-p-cresol)	128-37-0	2	6	10	400	mg/m3	
250	Bis(1-methylethyl)benzene, 1-4; (p- or 1,4- Diisopropylbenzene)	100-18-5	12.5	40	300	500	mg/m3	
251	Bis(1-methylethyl)benzene; (Diisopropylbenzene)	25321-09-9	5	15	100	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
252	Bis(2-chlorethylthioethyl) ether; (2-2'-Di(3-chloroethylthio)diethyl ether	63918-89-8	0.3	0.75	6	30	mg/m3	Name changed
253	Bis(2-chloroethyl)sulfide; (HD; Mustard gas)	505-60-2	0.00075	0.0025	0.015	4	mg/m3	"vesicant" removed after "HD"
254	Bis(2-ethoxyethyl) ether; (Diethyl carbitol)	112-36-7	75	250	500	500	mg/m3	
255	Bis(2-ethylhexyl) hydrogen phosphate	298-07-7	0.02	0.06	0.4	2	mg/m3	Space in name removed
256	Bis(2-hydroxyethyl)dodecanamide, N,N-	120-40-1	0.004	0.01	0.075	100	ppm	Space in name removed
257	Bis(2-methylstyryl)benzene, 4-; (1,4-Bis(2-(2-methylphenyl)ethenyl)benzene)	13280-61-0	10	30	50	250	mg/m3	Name changed
258	Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl) sulfide	96-69-5	15	30	50	500	mg/m3	
259	Bis(chloromethyl)ketone; (1,3-Dichloroacetone)	534-07-6	0.125	0.4	2	2	mg/m3	
260	Bis(chloromethyl)oxetane, 3,3-	78-71-7	0.4	1.25	2	75	mg/m3	Name changed
261	Bisbutenylenetetrahydrofurfural; (2,3,4,5-bis(2-butylene)tetrahydro-2-furaldehyde)	126-15-8	10	30	200	500	mg/m3	Added.
262	Bismuth	7440-69-9	1.5	5	40	200	mg/m3	
263	Bismuth germanate	12233-73-7	1.5	5	40	200	mg/m3	
264	Bismuth hydroxide	10361-43-0	1	1	3	100	mg/m3	SAR
265	Bismuth hydroxide nitrate oxide; (White paint)	1304-85-4	7.5	20	150	500	mg/m3	
266	Bismuth nitrate	10361-44-1	1.25	4	25	500	mg/m3	
267	Bismuth oxide	1304-76-3	20	60	400	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
268	Bismuth oxychloride	7787-59-9	75	250	500	500	mg/m3	
269	Bisphenol A	80-05-7	10	30	50	500	mg/m3	
270	Bisphenol A diglycidyl ether	1675-54-3	1.25	3.5	6	6	mg/m3	
271	Bitoscanate; (1,4-Phenylenediisothiocyanic acid)	4044-65-9	4	12.5	20	20	mg/m3	
272	Borane-tetrahydrofuran	14044-65-6	5	15	25	125	mg/m3	Added. No toxicity data, unstable, TWA based on borane compound toxicity range
273	Boric acid	10043-35-3	10	30	50	125	mg/m3	
274	Boron	7440-42-8	2.5	7.5	50	250	mg/m3	
275	Boron carbide	12069-32-8	10	30	50	250	mg/m3	
276	Boron nitride	10043-11-5	400	500	500	500	mg/m3	Added. Rat LD > 50 g/kg
277	Boron oxide	1303-86-2	15	30	50	500	mg/m3	
278	Boron tribromide	10294-33-4	1	1	1	5	ppm	
279	Boron trichloride	10294-34-5	0.1	0.3	2.09	2.5	ppm	
280	Boron trifluoride	7637-07-2	2	2	30	100	mg/m3	ERPG-1, -2, -3
281	Boron trifluoride etherate	109-63-7	7.5	20	37.5	500	mg/m3	Added.
282	Boron trifluoride-dimethyl ether	353-42-4	1	3	5	7.5	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
283	Bromadiolone	28772-56-7	0.2	0.6	1	1	mg/m3	
284	Bromine	7726-95-6	0.1	0.1	0.5	5	ppm	ERPG-1, -2, -3
285	Bromine chloride	13863-41-7	10	30	50	250	mg/m3	
286	Bromine pentafluoride	7789-30-2	0.1	0.3	0.5	35	ppm	
287	Bromine trifluoride	7787-71-5	6	15	30	500	mg/m3	
288	Bromo-1-chloro-5,5-dimethylhydantoin, 3-; (Bromo 1-chloro-5,5-dimethyl-2,4-imidazolidinedione)	126-06-7	10	10	50	250	mg/m3	Synonym changed
289	Bromo-3-chloro-5,5-dimethylhydantoin, 1-	32718-18-6	10	10	10	10	mg/m3	
290	Bromo-3-chloro-5,5-dimethylhydanton, 1-	16079-88-2	6	15	125	500	mg/m3	Added.
291	Bromoacetone	598-31-2	0.075	0.2	1.5	7.5	ppm	
292	Bromobenzene; (Phenyl bromide)	108-86-1	0.75	2.5	15	350	ppm	
293	Bromochlorobenzene, m-	108-37-2	10	30	50	250	mg/m3	
294	Bromochlorobenzene, p-	106-39-8	10	30	50	250	mg/m3	
295	Bromochloromethane	74-97-5	200	600	1000	2000	ppm	
296	Bromocresol green	76-60-8	10	30	50	250	mg/m3	
297	Bromocresol purple	115-40-2	10	30	50	250	mg/m3	
298	Bromocyclohexanol, Cis-2-	16536-57-5	0.04	0.125	0.75	40	ppm	SAR

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
299	Bromodichloromethane	75-27-4	1.5	4	30	150	mg/m3	
300	Bromoform; (Tribromomethane)	75-25-2	0.5	0.5	1.5	850	ppm	
301	Bromonaphthalene	90-11-9	10	30	50	350	mg/m3	
302	Bromophenyl phenyl ether, 4-	101-55-3	2	6	40	200	mg/m3	
303	Bromopropane, 1-	106-94-5	300	1000	2500	2500	ppm	
304	Bromotrifluoroethylene	598-73-2	6	20	35	125	ppm	
305	Bromotrifluoromethane; (Trifluorobromomethane)	75-63-8	1000	3000	25000	40000	ppm	
306	Brucine; (2,3-Dimethoxystrychnine)	357-57-3	0.15	0.45	0.75	40	mg/m3	Synonym added, "as strychnine" removed
307	Buffer solution, aqueous	7732-18-5	500	500	500	500	mg/m3	Added. Aqueous buffer solution treated as pure water
308	Butadiene,1,3-	106-99-0	2	10	200	5000	ppm	ERPG-1, -2, -3
309	Butane	106-97-8	800	2400	4000	19000	ppm	
310	Butanedioic acid, diethyl ester; (Succinic acid, diethyl ester)	123-25-1	5	15	100	500	ppm	
311	Butanedioic acid, dimethyl ester; (Succinic acid, dimethyl ester)	106-65-0	3.5	10	75	350	ppm	
312	Butanediol dinitrate, 1,4-	3457-91-8	0.05	0.125	0.4	3	ppm	SAR
313	Butanediol, 1,4-; (1,4-Tetramethylene glycol; TMA)	110-63-4	1.25	3.5	25	250	mg/m3	Added.
314	Butanenitrile; (Butyronitrile)	109-74-0	8	24	40	50	ppm	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
315	Butanethiol; (n-Butyl mercaptan)	109-79-5	0.5	1.5	50	500	ppm	
316	Butanoic acid, butyl ester; (n-Butyl n-butanoate)	109-21-7	1.5	5	35	150	ppm	
317	Butanone oxime; (Ethyl methyl ketoxime)	96-29-7	15	40	100	100	ppm	Name changed
318	Butanone, 2-; (MEK)	78-93-3	200	300	300	3000	ppm	
319	Butene, 1-; (Butylene)	106-98-9	400	1200	2000	500000	ppm	
320	Butene, 2-	107-01-7	3	7.5	60	300	ppm	
321	Butene, cis-2-; (cis-1,2-Dimethylethylene)	590-18-1	17000	17000	17000	17000	ppm	Asphyxiant, but Ts limited to LEL = 1.7%
322	Butene, trans, 2-; (trans-1,2-Dimethylethylene)	624-64-6	6000	15000	25000	25000	ppm	Name changed
323	Butoxyethanol acetate, 2-; (Ethylene glycol monobutyl ether acetate)	112-07-2	5	15	25	150	ppm	Name changed
324	Butoxyethanol phosphate, 2-	78-51-3	7.5	20	150	500	mg/m3	Added.
325	Butoxyethanol, 2-; (Glycol ether EB; Xtraction II)	111-76-2	50	50	100	700	ppm	
326	Butoxyethoxy)-ethanol, 2-(2-; (Diethylene glycol monobutyl ether)	112-34-5	100	150	500	500	mg/m3	
327	Butoxyethoxy)ethyl thiocyanate, 2-(2-	112-56-1	0.35	1	7.5	40	mg/m3	Spaces in name removed
328	Butoxypolypropylene glycol	9003-13-8	35	100	500	500	mg/m3	Added. RTECS has six entries for this CASRN
329	Butyl acetate, n-	123-86-4	5	5	200	3000	ppm	ERPG-1, -2, -3
330	Butyl acetate, sec-	105-46-4	200	200	300	1500	ppm	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
331	Butyl acetate, tert-	540-88-5	200	600	1000	1500	ppm	
332	Butyl acrylate, n-	141-32-2	2	3.5	25	250	ppm	ERPG-2, -3; ignored ERPG-1
333	Butyl alcohol, n-	71-36-3	50	50	50	1400	ppm	
334	Butyl alcohol, sec-; (2-Butanol)	78-92-2	100	150	500	2000	ppm	Added. LANL CASRN = 15892-23-6 changed to current 78-92-2
335	Butyl bis(2-ethylhexyl)phosphate	z-0002	0.2	0.6	0.75	0.75	ppm	SAR
336	Butyl ether, n-; (Dibutyl ether)	142-96-1	1	3	20	400	ppm	Added.
337	Butyl glycidyl ether, n-	2426-08-6	50	50	50	250	ppm	
338	Butyl isocyanate, n-	111-36-4	0.0035	0.01	0.05	1	ppm	ERPG-1, -2, -3
339	Butyl lithium	109-72-8	0.2	0.2	1	6	mg/m3	Added. No toxicity data, based on LiH LClo
340	Butyl perbenzoate, tert-	614-45-9	7.5	25	150	400	mg/m3	r & mu 240 min LC > 57 mg/m3
341	Butyl propanoate; (Propanoic acid, butyl ester)	590-01-2	500	500	500	500	mg/m3	
342	Butyl-3-iodo-2-propnyl ester carbamic acid	55406-53-6	10	30	50	250	mg/m3	Name changed
343	Butylamine, (S)-sec-	513-49-5	1.5	4	30	150	mg/m3	
344	Butylamine, n-	109-73-9	5	5	50	300	ppm	
345	Butylamine, sec-	13952-84-6	5	5	5	20	ppm	
346	Butylamine, tert-	75-64-9	5	5	7.5	125	ppm	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
347	Butylbenzene, n-; (1-Phenylbutane)	104-51-8	7.5	20	150	750	ppm	
348	Butylbenzene, sec-; (2-Phenylbutane)	135-98-8	1.5	5	35	150	ppm	
349	Butylbenzene, tert-	98-06-6	7.5	20	150	750	ppm	
350	Butylcyclohexane; (1-Cyclohexylbutane)	1678-93-9	1.5	5	40	200	ppm	
351	Butylcyclohexanone, p-tert-	98-53-3	20	60	400	500	mg/m3	
352	Butylpyrocatechol, 4-tert-; (4-tert-Butylcatechol)	98-29-3	2	6	10	500	mg/m3	
353	Butyne-1,4-diol, 2-; (1,4-Butynediol)	110-65-6	0.35	1	20	30	mg/m3	
354	Butyraldehyde	123-72-8	25	25	25	2000	ppm	
355	Butyric acid	107-92-6	15	40	250	250	ppm	
356	C-18 Unsaturated Fatty Acid Dimer (Epoxy)s; (Versamid 140 polyamide resin; Versamid 125)	68410-23-1	10	30	50	250	mg/m3	Added. TSCA listed, no toxicity data
357	C-8 Alkane	68333-81-3	300	385	400	2000	ppm	Based on octane, MW estimated. T-1 changed
358	Cacodylic acid (as inorganic As)	75-60-5	0.5	1.5	5	5	mg/m3	
359	Cadmium & compounds	7440-43-9	0.005	0.03	0.5	7.5	mg/m3	
360	Cadmium bromide	7789-42-6	0.0125	0.075	4	20	mg/m3	
361	Cadmium carbonate	513-78-0	0.0075	0.04	4	12.5	mg/m3	
362	Cadmium chloride	10108-64-2	0.0075	0.05	0.075	15	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
363	Cadmium fluoride	7790-79-6	0.006	0.04	4	12.5	mg/m3	
364	Cadmium hydroxide	21041-95-2	0.006	0.04	4	10	mg/m3	
365	Cadmium nitrate	10325-94-7	0.01	0.06	4	15	mg/m3	
366	Cadmium nitrate tetrahydrate	10022-68-1	0.0125	0.075	4	25	mg/m3	
367	Cadmium nitrite	z-0003	0.0075	0.05	4	15	mg/m3	
368	Cadmium oxide	1306-19-0	0.005	0.035	4	10	mg/m3	
369	Cadmium stearate; (Octadecanoic acid, cadmium salt)	2223-93-0	0.03	0.15	12.5	50	mg/m3	
370	Cadmium sulfate	10124-36-4	0.0075	0.05	4	15	mg/m3	
371	Cadmium tungstate	7790-85-4	0.015	0.1	4	30	mg/m3	
372	Cadmium(II) acetate	543-90-8	0.005	0.03	4	7.5	mg/m3	
373	Calcium	7440-70-2	10	30	50	250	mg/m3	
374	Calcium arsenate	7778-44-1	0.01	0.03	10	10	mg/m3	
375	Calcium carbide	75-20-7	10	30	50	250	mg/m3	
376	Calcium carbonate; (Dolomite, Limestone)	1317-65-3	15	15	15	15	mg/m3	
377	Calcium chloride	10043-52-4	1	3.5	20	400	mg/m3	
378	Calcium chloride dihydrate	10035-04-8	40	125	500	500	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
379	Calcium chromate	13765-19-0	0.003	0.0075	0.15	150	mg/m3	
380	Calcium cyanamide	156-62-7	0.5	1.5	25	500	mg/m3	
381	Calcium fluoride	7789-75-5	5	15	25	500	mg/m3	
382	Calcium formate	544-17-2	10	30	200	500	mg/m3	
383	Calcium hydride	7789-78-8	3	9	15	75	mg/m3	
384	Calcium hydroxide	1305-62-0	15	15	25	500	mg/m3	
385	Calcium hypochlorite; (Calcium oxychloride)	7778-54-3	10	10	50	350	mg/m3	
386	Calcium nitrite	13780-06-8	0.03	0.075	0.6	50	mg/m3	Listed as "Nitrous acid, calcium salt", MF = Ca.2(HNO2), MW = 134.10 SAR
387	Calcium oxalate	563-72-4	6	15	50	50	mg/m3	Listed as "Ethanedioic acid, calcium salt", MF = C2H2O4.Ca, MW = 130.11 SAR
388	Calcium oxide	1305-78-8	5	5	5	25	mg/m3	
389	Calcium phosphate; (Tricalcium phosphate)	10103-46-5	7.5	20	35	350	mg/m3	SAR
390	Calcium sulfate anhydrous; (Drierite)	7778-18-8	15	30	50	250	mg/m3	Added. LANL CASRN changed from 7778-81-8 and last digit changed for sorting. MF and MW in HSDB not compatible.
391	Calcium sulfate; (Gypsum; Plaster of Paris)	7778-18-9	15	30	50	250	mg/m3	
392	Calcium(II) nitrate	10124-37-5	1.25	3.5	25	125	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
393	Calcium(II) nitrate tetrahydrate (1:2:4)	13477-34-4	10	30	50	500	mg/m3	
394	Calcium(II) sulfate dihydrate (1:1:2)	10101-41-4	15	30	50	250	mg/m3	Added.
395	Camphor	76-22-2	2	25	25	200	mg/m3	
396	Cantharidin	56-25-7	0.75	2.5	4.3	4.3	mg/m3	
397	Caprolactam (dust)	105-60-2	1	3	3	20	mg/m3	
398	Caprylyl chloride; (Octanoyl chloride)	111-64-8	10	10	10	10	mg/m3	
399	Captan	133-06-2	5	15	25	500	mg/m3	
400	Carbachol Chloride	51-83-2	3	7.5	15	15	mg/m3	
401	Carbamic acid, methyl-, O-(((2,4-dimethyl-1,3-dithiolan-2-yl)methylene)amino)-	26419-73-8	0.2	0.6	1	1	mg/m3	SAX has "2,4-Dimethyl-1,3-dithiolane-2-carboxaldehyde o-(methylcarbamoyl)oxime".Caps changed
402	Carbanolate; (Aldecarb; Methyl-2-(methylthio)propionaldehyde oxime, 2-)	116-06-3	0.07	0.21	0.3	0.3	mg/m3	Name and spelling corrected
403	Carbaryl	63-25-2	5	15	25	100	mg/m3	
404	Carbazole	86-74-8	0.75	2.5	15	75	mg/m3	
405	Carbethoxyethylidine(triphenylphosphorane)	5717-37-3	10	30	50	250	mg/m3	Name changed
406	Carbofuran	1563-66-2	0.1	0.3	0.43	0.5	mg/m3	
407	Carbon black	1333-86-4	3.5	10.5	17.5	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
408	Carbon dioxide	124-38-9	5000	30000	30000	40000	ppm	
409	Carbon disulfide	75-15-0	10	10	50	500	ppm	ERPG-2, -3; ignored ERPG-1
410	Carbon monoxide	630-08-0	50	200	350	500	ppm	ERPG-1, -2, -3
411	Carbon tetrachloride	56-23-5	10	20	100	750	ppm	ERPG-1, -2, -3 reviewed, unchanged
412	Carbon tetrafluoride; (Tetrafluoromethane)	75-73-0	0.75	2.5	4	75	ppm	Added.
413	Carbon trifluoride; (Trifluoromethane, Fluoroform)	75-46-7	750	3000	20000	100000	ppm	Added. No toxicity data, TC10 based on HSDB HTOX profile
414	Carbon; (Graphite, synthetic)	7440-44-0	2	6	10	500	mg/m3	(Graphite, synthetic) is synonym, CASRN = 7782-42-5, Graphite, natural
415	Carbonic acid, calcium salt	471-34-1	15	30	50	500	mg/m3	
416	Carbonyl fluoride	353-50-4	2	5	5	20	ppm	
417	Carbonyl sulfide	463-58-1	1.25	4	25	125	ppm	
418	Carbophenothion; (Trithion)	786-19-6	1.25	4	6.8	6.8	mg/m3	
419	Casamino acids	6230-01-0	10	30	50	250	mg/m3	Added. Not found in databases, PNOS default used.
420	Casein; (Casamino acids; Casein hydrolysate type 1)	9000-71-9	10	30	50	250	mg/m3	Added. TSCA & Merck listed, no toxicity data. PNOS option used. H&N gives "milk protein".
421	Castor oil	8001-79-4	0.125	0.4	3	15	mg/m3	
422	Catechol	120-80-9	5	15	25	25	ppm	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
423	Cation exchange resin 200-400 meshHyd.Dowex 50W-X8	11119-67-8	10	30	50	250	mg/m3	Added. Not found, PNOS default used
424	Cation exchange resin 50W-X12, 200 - 400 mesh	9056-03-5	10	30	50	250	mg/m3	Added. Not found in databases, PNOS default used
425	Cellulose	9004-34-6	15	30	500	500	mg/m3	RTECS r LD50 & LC50 greater than values entered
426	Cellulose acetate butanoate; (Celvacene)	9004-36-8	10	30	50	250	mg/m3	Added. TSCA, H&N listed, no toxicity data
427	Cellulose, 2-(diethylamino)ethyl ether	9013-34-7	10	30	50	250	mg/m3	Added. TSCA listed, no toxicity data
428	Ceric ammonium nitrate	16774-21-3	40	100	200	500	mg/m3	
429	Ceric ammonium sulfate	7637-03-8	40	125	200	500	mg/m3	
430	Ceric oxide	1306-38-3	6	20	125	500	mg/m3	Rat oral LD50 > 5 g/kg
431	Cerium	7440-45-1	10	30	50	250	mg/m3	
432	Cerium chloride	7790-86-5	7.5	25	150	500	mg/m3	
433	Cerium fluoride	7758-88-5	7.5	25	40	500	mg/m3	Rat oral LD50 > 5 g/kg
434	Cerium hydroxide	15785-09-8	0.75	0.75	2	75	mg/m3	SAR
435	Cerium nitrate hexahydrate	10294-41-4	15	50	350	500	mg/m3	
436	Cerium oxalate	15750-47-7	10	30	50	250	mg/m3	CASRN ex LANL added
437	Cerium sulfate	13590-82-4	1	3.5	20	100	mg/m3	
438	Cerium trioxide	1345-13-7	2	6	40	200	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
439	Cerous nitrate; (Cerium(III) nitrate)	10108-73-3	1	3	20	500	mg/m3	
440	Cerous nitrite	z-0004	0.04	0.1	0.75	75	mg/m3	SAR
441	Cesium	7440-46-2	10	30	50	500	mg/m3	
442	Cesium carbonate	534-17-8	10	30	200	500	mg/m3	
443	Cesium chloride	7647-17-8	0.6	2	15	500	mg/m3	
444	Cesium fluoride	13400-13-0	20	60	100	500	mg/m3	
445	Cesium hydroxide	21351-79-1	2	2	7.5	250	mg/m3	Intertox CASRN = 12182-83-1 not found
446	Cesium iodide	7789-17-5	10	30	200	500	mg/m3	
447	Cesium nitrate	7789-18-6	10	30	200	500	mg/m3	
448	Cesium nitrite	z-0005	0.075	0.2	1.5	60	mg/m3	SAR
449	Charcoal, activated; (Cocoanut)	64365-11-3	10	30	50	250	mg/m3	Also CASRN = 68647-86-9
450	Chloramben; (3-Amino-2,5-dichlorobenzoic acid)	133-90-4	35	100	500	500	mg/m3	
451	Chlordane	57-74-9	0.5	1.5	50	100	mg/m3	
452	Chlorfenvinfos	470-90-6	2	6	10	10	mg/m3	
453	Chlorinated polyolefins	68410-99-1	10	30	50	250	mg/m3	
454	Chlorine	7782-50-5	0.5	1	3	20	ppm	ERPG-1, -2, -3 reviewed, unchanged

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
455	Chlorine dioxide	10049-04-4	0.1	0.3	0.5	3	ppm	ERPG-2, -3
456	Chlorine Hi dry granular (as Cl)	z-0006	0.5	1	3	20	ppm	
457	Chlorine pentafluoride	13637-63-3	3.5	3.5	3.5	60	ppm	
458	Chlorine trifluoride	7790-91-2	0.1	0.1	1	10	ppm	ERPG-1, -2, -3
459	Chlormephos	24934-91-6	1.25	4	7	35	mg/m3	
460	Chlormequat Chloride; (Choline dichloride)	999-81-5	0.35	1	7	7.5	mg/m3	
461	Chloro-1,1-difluoroethane, 1-; (HCFC-142b)	75-68-3	1000	10000	15000	25000	ppm	ERPG-1, -2, -3
462	Chloro-2,4-dinitrobenzene, 1-	97-00-7	3	10	60	350	mg/m3	
463	Chloro-2-methyl-1-propene, 3-	563-47-3	0.75	2.5	15	75	ppm	
464	Chloro-4-nitrophenol, 2-	619-08-9	0.5	1.5	10	50	ppm	Name changed
465	Chloroacetaldehyde	107-20-0	1	1	21.5	45	ppm	
466	Chloroacetic acid	79-11-8	0.75	2.5	15	75	mg/m3	
467	Chloroacetone	78-95-5	1	1	1	7.5	ppm	
468	Chloroacetyl chloride	79-04-9	0.05	0.05	0.5	10	ppm	ERPG-1, -2, -3
469	Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride, 1-(3-	4080-31-3	10	10	20	200	mg/m3	
470	Chloroaniline, p-	106-47-8	10	30	50	300	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
471	Chlorobenzene; (Benzene chloride)	108-90-7	30	30	500	1000	ppm	Name changed, synonym added
472	Chlorobenzylate; (4,4'-Dichloro-benzilic acid ethyl ester)	510-15-6	0.075	0.25	1.5	300	mg/m3	
473	Chlorobenzylidene malononitrile, o-	2698-41-1	0.4	0.4	0.4	2	mg/m3	
474	Chlorobutane, 1-; (Butyl chloride)	109-69-3	7.5	25	150	750	ppm	Added. Ignored inconsistent Russian TDLo, used NTP TDLo data
475	Chlorocyclohexanol, trans-2-	6628-80-4	3.5	10	75	400	mg/m3	
476	Chlorocyclohexene; (4-Chlorocyclohexene)	930-65-4	20	60	500	2500	ppm	SAR
477	Chlorodiethylaluminum; (Diethylaluminum chloride)	96-10-6	7.5	22.5	37.5	500	mg/m3	SAX MW incorrect. T-1, -2 changed
478	Chlorodifluoromethane	75-45-6	1000	1250	7500	7500	ppm	
479	Chloroethanesulfonyl chloride, 2-	1622-32-8	1.25	3.5	25	150	mg/m3	
480	Chloroethyl chloroformate	627-11-2	4	12.5	20	20	mg/m3	
481	Chloroethyl vinyl ether, 2-; (Ethene, 2-chloroethoxy-)	110-75-8	0.25	0.75	5	25	ppm	.
482	Chloroform	67-66-3	2	2	50	5000	ppm	ERPG-2, -3
483	Chloroform-D	865-49-6	2	2	50	500	ppm	Added. Not found in databases, has deuterium in place of H in chloroform, so used its limits.
484	Chloro-m-cresol, 4-	59-50-7	7.5	20	150	500	mg/m3	
485	Chloromethyl methyl ether	107-30-2	0.2	0.6	1	10	ppm	ERPG-2, -3

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
486	Chloromethyl(trichloro)silane	1558-25-4	0.1	0.35	2	10	mg/m3	
487	Chloronaphthalene, 1- (alpha)	90-13-1	6	20	125	500	mg/m3	
488	Chloronaphthalene,2- (beta)	91-58-7	0.2	0.6	1	500	mg/m3	
489	Chloronitrobenzene, p- ; (p-nitrochlorobenzene)	100-00-5	1	1.92	30	100	mg/m3	Spelling of synonym corrected
490	Chloroperoxybenzoic acid, 3-	937-14-4	0.4	1.25	7.5	40	mg/m3	
491	Chlorophacinone	3691-35-8	0.2	0.6	1	1	mg/m3	
492	Chlorophenol, 4-; (p-Chlorophenol)	106-48-9	250	400	400	400	mg/m3	Added. Severe irritant. Inconsistent rat LC50 not used
493	Chlorophenol, m-	108-43-0	0.75	2	15	250	mg/m3	
494	Chlorophenol, o-	95-57-8	0.4	1	7.5	50	ppm	
495	Chlorophenyl phenyl ether, 4-	7005-72-3	0.0025	0.0075	0.05	0.25	mg/m3	
496	Chlorophenyl thiourea, 2-	5344-82-1	0.75	2.5	4.6	4.6	mg/m3	
497	Chloropicrin/Methyl bromide mixture	8004-09-9	2	3	12.5	60	mg/m3	In H&N, CASRN added, 0.15 to 0.85 mixture assumed
498	Chloropicrin/Methyl chloride mixture	z-0007	2	2	6	30	mg/m3	0.30 to 0.70 mixture assumed
499	Chloropicrin; (Trichloronitromethane)	76-06-2	0.1	0.1	0.3	1.5	ppm	ERPG-1, -2, -3
500	Chloroprene; (Neoprene)	126-99-8	1	1	1	300	ppm	
501	Chloropropionitrile, 3-	542-76-7	0.5	1.5	2.5	12.5	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
502	Chloropropylene, 2-	557-98-2	1000	3000	20000	35000	ppm	
503	Chloropropyl-n-octylsulfoxide, 3-	3569-57-1	1.5	5	8	500	mg/m3	
504	Chloro-p-toluenesulfonamide, sodium salt, n-; (Chloramine T) (see also SFV550)	127-65-1	10	30	50	250	mg/m3	
505	Chlorosulfonic acid; (Chlorosulfuric acid)	7790-94-5	1.43	2	10	30	mg/m3	ERPG-1, -2, -3
506	Chlorotoluene, 2-; (o-Chlorotoluene)	95-49-8	50	75	250	1500	ppm	
507	Chlorotoluene, 4-; (p-Tolyl chloride)	106-43-4	25	75	500	2500	ppm	
508	Chlorotrifluoroethylene	79-38-9	5	20	100	300	ppm	ERPG-1, -2, -3
509	Chlorotrifluoromethane; (CFC-13)	75-72-9	1000	3000	5000	25000	ppm	
510	Chlorovinylarsine dichloride; (Lewisite)	541-25-3	1.25	1.25	4.7	4.7	mg/m3	Name and synonym switched
511	Chloroxuron	1982-47-4	2	6	10	500	mg/m3	
512	Chlorpyrifos; (dursban)	2921-88-2	0.2	0.6	10	75	mg/m3	
513	Chlorsulfuran	64902-72-3	0.15	0.5	3.5	500	mg/m3	SAX r LC50 > 5900 mg/m3
514	Chlorthiophos	21923-23-9	0.35	1	7.8	7.8	mg/m3	SAX CASRN = 60238-56-4
515	Chromates	13907-45-4	0.05	0.1	0.1	15	mg/m3	
516	Chromic acetate; (Chromium(III) acetate)	1066-30-4	2	6	10	100	mg/m3	
517	Chromic chloride; (Chromium(III) chloride)	10025-73-7	1.5	4	7.5	75	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
518	Chromic oxide (Chromium(III) oxide, chromium sesquioxide)	1308-38-9	0.75	2.25	3.75	35	mg/m3	
519	Chromic sulfate; (Chromium(III) sulfate (2:3))	10101-53-8	1.5	2	7.5	75	mg/m3	
520	Chromic trihydroxide; (Chromic(III) acid)	1308-14-1	1	1.5	5	50	mg/m3	
521	Chromic trioxide; (Chromium(VI) oxide (1:3))	1333-82-0	0.1	0.2	0.2	30	mg/m3	
522	Chromic(VI) acid	7738-94-5	0.1	0.2	0.2	35	mg/m3	
523	Chromite; (Chromite (mineral))	1308-31-2	0.3	0.3	0.5	500	mg/m3	
524	Chromium	7440-47-3	1	1.5	2.5	250	mg/m3	
525	Chromium nitrate nonahydrate	7789-02-8	4	10	20	200	mg/m3	
526	Chromium(III) acetate hydroxide	39430-51-8	2.5	7.5	12.5	125	mg/m3	Added. Not found. Chromium(III) acetate, 1066-30-4, MW = 229.13, MF = Cr.3(C2.H4.O2). LANL MW = 603.3?
527	Chromium(III) nitrate	13548-38-4	2	6	10	100	mg/m3	
528	Chromium(III) oxide hydroxide; (Chromium oxyhydroxide)	z-0008	0.75	1	3.75	40	mg/m3	
529	Chromium(VI) hydroxide	12626-43-6	0.01	0.03	0.1	15	mg/m3	LLNL CASRN added. Used Cr(VI) limits, not SAR
530	Chromous chloride; (Chromium(II) chloride(1:2))	10049-05-5	1	3.5	6	500	mg/m3	
531	Chrysene (coal tar volatile)	218-01-9	0.2	0.6	1	80	mg/m3	
532	Citric acid	77-92-9	10	30	50	500	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
533	Citric acid monohydrate	5949-29-1	1.5	4	30	150	mg/m3	
534	Citric acid, trisodium salt, dihydrate	6132-04-3	6	20	125	500	mg/m3	Added. Used Trisodium citrate, CASRN = 68-04-2, SAX TNL000
535	Coal tar pitch volatiles; (Particulate polycyclic aromatic hydrocarbons)	65996-93-2	0.2	0.6	10	80	mg/m3	
536	Coal tar, aerosol	8007-45-2	0.1	1.25	7.5	40	mg/m3	
537	Coal tar; (Coal tar volatiles)	8007-45-3	0.2	0.6	1	80	mg/m3	Last digit of CASRN changed to distinguish from Coal tar aerosol
538	Cobalt	7440-48-4	0.1	0.1	20	20	mg/m3	
539	Cobalt acetate tetrahydrate; (Cobaltous acetate tetrahydrate)	6147-53-1	3	7.5	60	300	mg/m3	Added.
540	Cobalt carbonyl	10210-68-1	0.27	0.27	25	60	mg/m3	
541	Cobalt chloride	7646-79-9	0.125	0.125	20	35	mg/m3	
542	Cobalt hydroxide	21041-93-0	0.03	0.075	0.15	0.75	mg/m3	
543	Cobalt nitrate hexahydrate; (Cobaltous nitrate hexahydrate)	10026-22-9	0.1	0.3	0.5	100	mg/m3	Added.
544	Cobalt nitrate; (Cobalt(II) nitrate)	10141-05-6	0.15	0.15	3	150	mg/m3	
545	Cobalt nitrite	z-0009	0.05	0.15	0.25	1.25	mg/m3	
546	Cobalt oxide	1308-06-1	0.075	0.075	0.125	500	mg/m3	
547	Cobalt sulfate	10124-43-3	0.05	0.15	0.25	150	mg/m3	Added.
548	Cobalt sulfate heptahydrate; (Cobalt(II) sulfate(1:1), heptahydrate)	10026-24-1	0.1	0.3	50	250	mg/m3	Added. RTECS listed, no toxicity data

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
549	Cobalt tetraphenylporphine	14172-90-8	10	30	50	250	mg/m3	CASRN ex LANL added
550	Cobalt(II) chloride hexahydrate	7791-13-1	0.075	0.25	4	100	mg/m3	Added.
551	Cobalt(II) oxide	1307-96-6	0.075	0.075	12.5	75	mg/m3	See also CND020: Co3O4, CND825: Co2O3 T-2 changed.
552	Cobalt, ((2,2'-(1,2'-ethanediylbis(nitrilomethylidene))bis(6-fluorophenolato)(2-), N,N',O,O')	62207-76-5	0.15	0.4	3	15	mg/m3	SAX name = "n,n'Ethylene bis(3-fluorosalicylideneiminato)cobalt(II)"
553	Cobaltous bromide; (Cobalt(II) bromide)	7789-43-7	0.2	0.2	0.35	150	mg/m3	
554	Cobaltous carbonate	513-79-1	0.125	0.125	0.2	250	mg/m3	
555	Colchicine	64-86-8	0.04	0.125	0.9	0.9	mg/m3	
556	Copper	7440-50-8	1	3	5	100	mg/m3	
557	Copper cyanide	544-92-3	1.25	4	6	25	mg/m3	
558	Copper hydroxide	20427-59-2	1.5	4	7.5	400	mg/m3	
559	Copper nitrate; (Cupric nitrate)	3251-23-8	3	7.5	60	300	mg/m3	
560	Copper oxide	1317-39-1	1	3.5	5	100	mg/m3	
561	Copper sulfate	7758-98-7	2.5	2.5	6	40	mg/m3	
562	Copper(I) chloride; (Cuprous chloride)	7758-89-6	1.5	4	7.5	60	mg/m3	
563	Copper(II) carbonate hydroxide (2:1:2)	12069-69-1	1.5	5	7.5	150	mg/m3	Added.
564	Copper(II) acetate monohydrate	6046-93-1	3	7.5	60	300	mg/m3	Added.

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
565	Copper(II) chloride (1:2); (Cupric chloride)	7447-39-4	2	6	10	10	mg/m3	
566	Copper(II) chloride dihydrate; (Cupric chloride)	10125-13-0	2.5	7.5	12.5	250	mg/m3	Added. See CASRN 7447-39-4, SAX No. CNK500, Copper(II) chloride (1:2)
567	Copper(II) sulfate pentahydrate	7758-99-8	4	10	20	200	mg/m3	
568	Coumaphos	56-72-4	1.5	4	30	125	mg/m3	
569	Coumatetralyl; (Endrocide)	5836-29-3	3	10	16.5	16.5	mg/m3	
570	Creosote (coal tar)	8001-58-9	0.2	0.6	80	80	mg/m3	
571	Cresols	1319-77-3	5	15	25	250	ppm	
572	Crimidine; (Castrix)	535-89-7	0.25	0.75	1.2	1.2	mg/m3	
573	Cristobalite	14464-46-1	0.05	0.15	2.5	25	mg/m3	
574	Crocidolite	12001-28-4	0.005	0.015	5	250	mg/m3	
575	Crotonaldehyde	4170-30-3	0.3	2	10	50	ppm	ERPG-1, -2, -3
576	Crotonaldehyde, (E)-	123-73-9	0.6	2	14	50	ppm	
577	Crotonic Acid	3724-65-0	4	12.5	75	400	mg/m3	
578	Cumene hydroperoxide; (Isopropylbenzene hydroperoxide)	80-15-9	10	30	150	150	mg/m3	
579	Cumene; (Isopropyl benzene)	98-82-8	50	50	50	900	ppm	
580	Cumenol methylcarbamate, m-; (Phenol,3-(1-methylethyl)-,methylcarbamate)	64-00-6	3	10	16	16	mg/m3	Synonym ex HSDB, spaces removed

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
581	Cupferron; (Ammonium-n-nitrosophenylhydroxylamine)	135-20-6	7.5	25	75	75	mg/m3	
582	Cupric acetate, anhydrous; (Copper acetate)	142-71-2	3	7.5	15	200	mg/m3	
583	Cupric nitrate hemipentahydrate	19004-19-4	3.5	10	15	350	mg/m3	
584	Cupric nitrite	14984-71-5	0.035	0.075	0.6	60	mg/m3	CASRN in TSCA, MF = Cu.2 H-N-O2 SAR
585	Cupric oxide	1317-38-0	1.25	3.5	6	125	mg/m3	
586	Cyanamide	420-04-2	2	6	10	35	mg/m3	
587	Cyanide	57-12-5	5	5	5	25	mg/m3	"and cyanides" removed from name
588	Cyanoacetamide	107-91-5	6	20	150	500	mg/m3	
589	Cyanogen	460-19-5	10	10	10	15	ppm	
590	Cyanogen bromide	506-68-3	20	44	44	44	mg/m3	
591	Cyanogen chloride	506-77-4	0.3	0.3	0.4	4	ppm	ERPG-2, -3
592	Cyanogen iodide	506-78-5	35	100	180	180	mg/m3	
593	Cyanoguanidene	461-58-5	0.5	1.5	10	200	mg/m3	Added.
594	Cyanophos	2636-26-2	1.25	3.5	25	25	mg/m3	CN limits not used
595	Cyanuric acid; (1,3,5-Triazine-2,4,6-triol)	108-80-5	1.25	3.5	25	500	mg/m3	Added.
596	Cyanuric fluoride; (2,4,6-Trifluoro-s-triazine)	675-14-9	0.17	0.17	0.17	75	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
597	Cyclohexane	110-82-7	300	900	1300	1300	ppm	
598	Cyclohexanol	108-93-0	50	50	50	400	ppm	
599	Cyclohexanone; (Ketoexamethylene)	108-94-1	50	50	50	700	ppm	
600	Cyclohexen-1-one, 2- ; (Checkmate)	74051-80-2	25	75	500	500	mg/m3	
601	Cyclohexene	110-83-8	300	300	500	2000	ppm	
602	Cycloheximide	66-81-9	0.1	0.3	2	2	mg/m3	
603	Cyclohexylamine	108-91-8	10	10	40	200	ppm	
604	Cyclooctadiene, 1,5-	111-78-4	100	300	2000	10000	ppm	Added. HC&N has MP=-56.4
605	Cyclooctatetraene, 1,3,5,7-	629-20-9	60000	145000	280000	500000	ppm	Simple asphyxiant (see Introduction), LEL not found. T-0, -1, -2 changed
606	Cyclopentane	287-92-3	600	1800	4000.00	15000	ppm	
607	Cyclopropane	75-19-4	600	1500	12500	60000	ppm	
608	Cyclotetramethylene tetranitramine; (HMX)	2691-41-0	0.06	0.15	1.25	500	mg/m3	Name and synonym switched
609	Cyclotol; (RDX-TNT mixture)	z-0010	0.2	3	3.0	250	mg/m3	2,4,6-Trinitrotoluene mixed with Hexahydro-1,3,5-trinitro-1,3,5-triazine. See PBX
610	Cyclotrimethylenetrinitramine; (RDX or Cyclonite)	121-82-4	0.5	3	3	40	mg/m3	Name changed, CASRN also used for RDX and HMX mixtures
611	Cytidine monophosphate; (Cytidine 5-monophosphate free acid)	63-37-6	7.5	25	150	500	mg/m3	Added.

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
612	Dawsonite; (Crystalline dehydroxy sodium aluminum, carbonate)	12011-76-6	3.5	10	150	500	mg/m3	Name changed, SAR
613	DDD (1,1-bis(4-Chlorophenyl)-2,2-dichloroethane)	72-54-8	10	30	50	50	mg/m3	
614	DDE (2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene)	72-55-9	10	30	50	400	mg/m3	
615	DDT (Dichlorodiphenyltrichloroethane)	50-29-3	1	3	5	500	mg/m3	
616	DEAE SEPHAROSE CL-6B	62610-50-8	10	30	50	250	mg/m3	Added. Not found in databases, PNOS used
617	Decaborane	17702-41-9	0.3	0.75	10	15	mg/m3	
618	Decahydronaphthalene, cis-; (cis-Decalin)	493-01-6	0.5	1.5	10	75	ppm	SAX has CASRN = 91-17-8 for generic Decalin. HC&P has 493-01-6 for "cis", 493-02-7 for "trans"
619	Decahydronaphthalene, trans-; (trans-Decalin)	493-02-7	0.5	1.5	10	75	ppm	SAX has CASRN = 91-17-8 for generic Decalin. HC&P has 493-01-6 for "cis", 493-02-7 for "trans"
620	Decamethylcyclopentasiloxane	541-02-6	10	30	50	500	mg/m3	Synonym = Silicone (several formulations), name changed
621	Decanal	112-31-2	2.5	7.5	50	250	ppm	
622	Decane	124-18-5	0.4	1.25	10	5000	ppm	
623	Decene, 1-, homopolymer, hydrogenated	68037-01-4	10	30	50	250	mg/m3	
624	Decyl alcohol; (1-Decanol)	112-30-1	4	12.5	75	500	mg/m3	Added.
625	Demeton	8065-48-3	0.1	0.15	2	10	mg/m3	SAX name = "Demeton-o+demeton-s"; MW is 258.34 in some references
626	Demeton-s-methyl	919-86-8	0.05	0.15	5	200	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
627	Deuterium	7782-39-0	2000	6000	10000	50000	ppm	TEEL-3 limited by LEL = 5%
628	Deuterium oxide; (Heavy water)	7789-20-0	2000	6000	40000	200000	ppm	
629	Dextran	9004-54-0	0.35	1	6	500	mg/m3	
630	Dextran sulfate sodium	9011-18-1	15	40	300	500	mg/m3	Added.
631	Di-2-ethylhexyl adipate	103-23-1	50	150	500	500	mg/m3	T-2 uses 'ip' data T-0, T-1 changed.
632	Diacetyl peroxide; (Acetyl peroxide)	110-22-5	7.5	20	150	500	mg/m3	Original list concentration > 70%
633	Dialifor	10311-84-9	1	3	5	5	mg/m3	
634	Diallyl phthalate	131-17-9	1	1	300	300	mg/m3	Added.
635	Diallylmethylammonium chloride polymer	26062-79-3	12.5	35	250	500	mg/m3	Added.
636	Diaminodiphenyl ether, 4,4'-; (4,4'-Oxydianiline)	101-80-4	0.5	1.5	10.00	300	mg/m3	
637	Diaminodiphenylsulfone	80-08-0	1	3	20	400	mg/m3	Added. LANL CASRN = 80-08-7 changed
638	Dianisidine dihydrochloride, o-; (3,3'-Dimethoxybenzidine dihydrochloride)	20325-40-0	0.15	0.5	3.5	7.5	mg/m3	
639	Diatomaceous earth (flux calcinated; Filter agent, celite)	68855-54-9	10	30	50	500	mg/m3	Added. CASRN found in H&N
640	Diatomaceous earth; (Silica-amorphous diatomaceous earth (uncalcined))	61790-53-3	10	30	50	500	mg/m3	Added. Found in ACGIH & NIOSH
641	Diazomethane	334-88-3	0.2	0.6	2	2	ppm	
642	Dibenza(a,h)anthracene	53-70-3	10	30	50	50	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
643	Dibenzo(a,e)pyrene; (Naphtho(1,2,3,4-def)chrysene)	192-65-4	0.035	0.1	0.6	3.5	mg/m3	
644	Dibenzofuran	132-64-9	10	30	50	250	mg/m3	
645	Dibenzo-p-dioxin	262-12-4	10	30	200	500	mg/m3	
646	Diborane	19287-45-7	0.1	0.15	1	3	ppm	ERPG-2, -3
647	Dibromo-3-chloropropane, 1,2-; (DBCP)	96-12-8	0.001	0.003	0.005	15	ppm	
648	Dibromo-4-nitrophenol, 2,6-	99-28-5	0.04	0.1	0.75	4	ppm	
649	Dibromochloromethane; (Chlorodibromomethane)	124-48-1	2	6	40	150	mg/m3	
650	Dibromomethane	74-95-3	0.5	1.5	10	500	mg/m3	T-0, -1, -2 changed
651	Dibromophenol, 2,6-	608-33-3	0.5	0.5	2.5	2.5	mg/m3	SAR
652	Dibromopropane, 1,3-	109-64-8	2	6	40	200	mg/m3	T-3 uses 'ip' data All Ts changed.
653	Dibromotetrafluoroethane; (Halon 2402)	124-73-2	150	500	3500	15000	ppm	
654	Dibutyl (2-ethylhexyl)phosphate	z-0011	0.2	0.6	0.7	0.7	ppm	SAR
655	Dibutyl butylphosphonate	78-46-6	0.04	0.125	1	5	ppm	
656	Dibutyl peroxide, tert-	110-05-4	1.25	4	25	400	ppm	SAX name retained
657	Dibutyl phosphate	107-66-4	1	2	5	30	ppm	(TBP) removed
658	Dibutyl phosphite	1809-19-4	12.5	40	250	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
659	Dibutyl phthalate	84-74-2	5	15	250	500	mg/m3	
660	Dibutylhexamethylenediamine, N,N'-	4835-11-4	1	3	20	75	mg/m3	
661	Dichloran; (2,6-Dichloro-4-nitroaniline; Resisan)	99-30-9	0.005	0.015	0.125	500	mg/m3	
662	Dichloro(4,4-dimethylzinc - 5((((methylamino)carbonyl oxy)imino)pentanenitrile), (trans-4)-; (Ethienocarb)	58270-08-9	1.5	5	9	9	mg/m3	Retained SAX name
663	Dichloro-1-fluoroethane, 1,1-; (HCFC-141b; Freon 141)	1717-00-6	500	1500	2500	35000	ppm	
664	Dichloro-2-butene 1,4-	764-41-0	0.005	0.015	2.5	125	ppm	T-2 changed.
665	Dichloro-2-trifluoromethylbenzimidazole, 4,5-; (Chloroflurazole)	3615-21-2	2.5	7.5	13	13	mg/m3	
666	Dichloroacetylene	7572-29-4	0.1	0.1	4	4	ppm	
667	Dichloroamine; (Chlorimide)	3400-09-7	0.25	0.75	6	30	ppm	
668	Dichlorobenzene, m-	541-73-1	0.75	2	15	75	ppm	T-3 uses 'ip' data All Ts changed.
669	Dichlorobenzene, o-	95-50-1	25	50	50	200	ppm	
670	Dichlorobenzene, p-	106-46-7	75	110	110	150	ppm	
671	Dichlorobenzidene 3,3'-	91-94-1	0.2	0.6	4	200	ppm	
672	Dichlorocyclohexane, 1,1-	2108-92-1	0.25	0.75	6	30	ppm	Name changed, SAR
673	Dichlorocyclohexane, trans-1,2-	822-86-6	75	250	500	500	mg/m3	In H&N, used chlorocyclohexane, CASRN 542-18-7

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
674	Dichlorodifluoromethane; (Freon 12, CFC 12)	75-71-8	1000	3000	10000	15000	ppm	
675	Dichloroethanol acetate, 1,2-	10140-87-1	0.35	1	1.7	6	ppm	
676	Dichloroethene, cis-1,2	156-59-2	200	200	400	2000	ppm	
677	Dichloroethene, trans-1,2; (trans-Acetylene dichloride)	156-60-5	4	12.5	100	2500	ppm	
678	Dichloroethyl ether; (Oxybis(2-chloro)ethane, 1-1'-)	111-44-4	5	10	25.7	100	ppm	Synonym corrected
679	Dichloroethylaluminum; (example of Alkylaluminums)	563-43-9	7.5	7.5	7.5	7.5	mg/m3	
680	Dichloroethylbenzene; (Ethylchlorobenzene)	1331-29-9	20	60	500	500	mg/m3	
681	Dichloroethylene, 1,2-	540-59-0	200	600	1000	1000	ppm	
682	Dichlorofluoromethane; (Freon 21, CFC 21)	75-43-4	10	30	5000	5000	ppm	
683	Dichlorohexane, 1,2-	2162-92-7	0.25	0.75	6	30	ppm	Name changed
684	Dichloroisopropyl ether	108-60-1	3.5	10	75	350	ppm	
685	Dichloromethoxy ethane; (bis(2-Chloroethoxy)methane)	111-91-1	0.6	2	6	6	ppm	
686	Dichloromethyl ether; (bis(Chloromethyl)ether)	542-88-1	0.001	0.003	0.1	0.5	ppm	ERPG-2, -3.
687	Dichloromethylphenylsilane	149-74-6	1	3	20	20	mg/m3	
688	Dichloromethylphosphine; (Methylphosphonous dichloride)	676-83-5	0.075	0.2	1.5	7.5	ppm	Added. LC50 based on SAX hazard rating. HC&P-listed
689	Dichlorophene	97-23-4	6	15	125	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
690	Dichlorophenol, 2,4-	120-83-2	10	30	50	250	mg/m3	
691	Dichlorophenol, 2,6-	87-65-0	10	10	35	150	mg/m3	
692	Dichlorophenoxyacetic acid, 2,4-; (2,4- D salts and esters)	94-75-7	10	10	40	100	mg/m3	
693	Dichloropropane	26638-19-7	4	12.5	75	400	ppm	
694	Dichloropropane, 1,1-	78-99-9	4	12.5	75	400	ppm	
695	Dichloropropane, 1,2-; (Propylene dichloride)	78-87-5	75	110	110	400	ppm	
696	Dichloropropane, 1,3-	142-28-9	7.5	20	150	350	ppm	
697	Dichloropropane, 2,2-	594-20-7	75	110	110	400	ppm	Used propylene dichloride
698	Dichloropropene, 1,1-	563-58-6	1	3	5	200	ppm	
699	Dichloropropene, 1,3-	542-75-6	1	3	5	50	ppm	
700	Dichloropropene, 2,3-	78-88-6	0.5	1.5	10	50	ppm	
701	Dichloropropene, cis-1,2-; (1,2-dichloro-1-propene, (Z)-)	6923-20-2	15	50	75	400	ppm	Synonym "Propylene dichloride" removed
702	Dichloropropene, cis-1,3-	10061-01-5	1	2.5	5	12.5	ppm	Mixture of cis- and trans- has CASRN 542-75-6
703	Dichloropropene, trans-1,2-; (Propylene dichloride; 1,2-dichloro-1-propene, (E)-)	563-54-2	15	50	75	400	ppm	
704	Dichloropropene, trans-1,3-	10061-02-6	1	3	5	25	ppm	Used cis-1,3 isomer (DGH200)
705	Dichlorosilane	4109-96-0	12.5	35	75	75	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
706	Dichlorotetrafluoroethane; (Freon 114, CFC 114)	76-14-2	1000	3000	10000	15000	ppm	
707	Dichlorovos; (Dichlorvos)	62-73-7	0.3	0.3	2.2	100	ppm	
708	Dicrotophos	141-66-2	0.25	0.75	0.9	40	mg/m3	
709	Dicyclohexano-18-crown-6	16069-36-6	0.2	0.6	4	75	mg/m3	
710	Dicyclopentadiene	77-73-6	5	5	7.5	40	ppm	
711	Dieldrin	60-57-1	0.25	0.75	1.25	50	mg/m3	
712	Diesel fuel marine; (Diesel fuel No. 4)	z-0012	100	350	500	500	mg/m3	CASRN not assigned (LANL)
713	Diesel fuel marine; (Fuel oil No.2)	68476-30-2	2.5	7.5	60	500	mg/m3	
714	Diesel fuels	68334-30-5	35	100	500	500	mg/m3	
715	Diethanolamine	111-42-2	2	6	10	300	mg/m3	
716	Diethenylbenzene, polymer with ethenylbenzene and ethenylethylbenzene, sulfonated; (DOWEX-50-X8 resin)	69011-20-7	10	30	50	250	mg/m3	Name changed
717	Diethoxydimethylsilane	78-62-6	4.0	12.5	100	500	ppm	
718	Diethyl (methylthiomethyl) phosphonate	28460-01-7	0.1	0.2	1	5	ppm	Added. Not found; LD50 based on Methyl demeton methyl, CASRN=2587-90-8, MF=C5.H13.O3.P.S2. MSDS states irritant
719	Diethyl chlorophosphate	814-49-3	0.4	1	8	8	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
720	Diethyl ethylphosphonate	78-38-6	7.5	25	150	500	mg/m3	
721	Diethyl malonate; (Ethyl malonate)	105-53-3	10	30	200	1000	ppm	Added.
722	Diethyl mercury	627-44-1	0.0125	0.04	0.05	2.5	mg/m3	
723	Diethyl methylphosphonate; (DEMP)	683-08-9	7.5	25	200	500	mg/m3	
724	Diethyl oxalate	95-92-1	1.5	5	35	150	mg/m3	Added.
725	Diethyl phthalate; (Ethyl phthalate)	84-66-2	5	15	25	500	mg/m3	
726	Diethyl sulfate	64-67-5	0.3	0.75	6	25	ppm	
727	Diethylamine	109-89-7	15	15	25	200	ppm	
728	Diethylaminoacetone	1620-14-0	0.5	1.5	10	50	ppm	SAR
729	Diethylaniline, n,n-	91-66-7	3	10	60	350	mg/m3	
730	Diethylbenzene, m-	141-93-5	40	125	500	500	mg/m3	
731	Diethylbenzene, o-	135-01-3	2.5	7.5	50	500	mg/m3	
732	Diethylene glycol	111-46-6	2.31	6.92	11.5	100	ppm	
733	Diethylene glycol di(3-aminopropyl) ether; (Polyglycol diamine)	4246-51-9	15	50	350	500	mg/m3	Added.
734	Diethylene glycol diacetate; (Diacetate-1,1'-oxybis-ethanol)	628-68-2	100	300	500	500	mg/m3	Names switched
735	Diethylene glycol dimethyl ethyl; (Bis(2-methoxy ethyl)ether)	111-96-6	5	15	25	400	ppm	Added.

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
736	Diethylenedioxiide, 1,4-; (1,4-Dioxane)	123-91-1	100	100	100	500	ppm	Name corrected
737	Diethylenetriamine	111-40-0	1	1	2	100	ppm	
738	Diethylenetriaminepentaacetic acid	67-43-6	10	30	50	200	mg/m3	
739	Diethylstilbestrol; (Phenol,4,4-(1,2-diethyl-1,2-ethenediyl) bis-, (E))	56-53-1	0.0125	0.04	0.3	15	mg/m3	Synonym corrected
740	Diethylthiourea, n,n'-	105-55-5	0.6	1.5	12.5	125	mg/m3	
741	Diethylurea, 1,3-	623-76-7	5	15	100	600	ppm	
742	Diethylzinc	557-20-0	1.5	3.5	3.5	10	ppm	Limits and LC50 based on SAX Safety Profile
743	Difluoroethane; (1,1-Difluoroethane)	75-37-6	400	1250	7500	75000	ppm	
744	Digitoxin	71-63-6	0.0075	0.025	0.18	0.25	mg/m3	
745	Diglycidyl Ether	2238-07-5	0.1	0.5	10	10	ppm	
746	Diglycol monoethyl ether acetate; (Carbitol acetate)	112-15-2	40	125	500	500	mg/m3	
747	Digoxin	20830-75-5	0.04	0.125	0.2	5	mg/m3	
748	Dihexyl((diethylcarbamoyl)methyl)phosphonate; (Dihexyl-N,N-diethylcarbamoylmethyl phosphonate)	7369-66-6	10	12.5	50	400	mg/m3	Name changed, original retained as synonym
749	Dihydro-2(3H)-furanone; (4-Butanolide)	96-48-0	2	6	40	500	mg/m3	
750	Dihydro-4-methyl furan, 2,3-	34314-83-5	1.5	5	35	150	mg/m3	Not found. Based on methylfuran

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
751	Dihydrogen hexachloroplatinate; (Chloroplatanic acid)	16941-12-1	0.004	0.012	0.02	7.5	mg/m3	Name changed
752	Dihydroxyanthraquinone, 1,8-	117-10-2	25	75	200	200	mg/m3	
753	Diiodomethane; (Methylene iodide)	75-11-6	75	200	500	500	mg/m3	Added.
754	Diisobutyl ketone	108-83-8	50	50	50	200	ppm	Added.
755	Diisobutylamine	110-96-3	0.2	0.6	4	20	ppm	
756	Diisopropyl methylphosphonate	1445-75-6	10	30	50	350	mg/m3	
757	Diisopropyl peroxydicarbonate	105-64-6	7.5	25	150	500	mg/m3	
758	Diisopropylamine	108-18-9	5	6	25	200	ppm	
759	Diisopropylamino)ethyl chloride hydrochloride, 2-(-	4261-68-1	0.0125	0.035	0.25	1.25	mg/m3	Name changed
760	Diisopropylaminoethanol, 2-; (N,N-Diisopropyl ethanolamine)	96-80-0	2.5	7.5	50	250	mg/m3	Name changed
761	Diisopropylfluorophosphate; (Phosphorofluoridic acid, bis(1-methylethyl) ester)	55-91-4	0.75	2	3.6	3.6	mg/m3	Synonym corrected
762	Diisopropyl naphthalene; (Bis(isopropyl)naphthalene)	38640-62-9	12.5	40	300	500	mg/m3	
763	Diketene; (Ketene dimer)	674-82-8	0.35	1	5	20	ppm	ERPG-1, -2, -3
764	Dilauroyl peroxide	105-74-8	0.02	0.06	0.4	2	mg/m3	
765	Dimefox; (bis(Dimethylamido)fluoro phosphate); Phosphorodithioate)	115-26-4	0.2	0.6	1	1	mg/m3	
766	Dimethanonaphthalene 1,4,5,8-; (Aldrin)	309-00-2	0.25	0.75	10	25	mg/m3	Aldrin has many synonyms

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
767	Dimethoate	60-51-5	6	15	30	30	mg/m3	
768	Dimethoxybenzidine 3,3'-; (o-Dianisidine)	119-90-4	1.5	5	35	500	mg/m3	
769	Dimethoxybutane, 1,3-	10143-66-5	7.5	25	150	750	ppm	
770	Dimethoxybutane, 2,2-	3453-99-4	7.5	20	150	750	ppm	Not found. Based on 1,3-dimethoxybutane
771	Dimethoxyethane, 1,2-	110-71-4	3.5	10	75	1000	ppm	Name changed
772	Dimethylglyoxime; (Diacetyldioxime)	95-45-4	10	30	50	200	mg/m3	
773	Dimethyl butane, 2,2-	75-83-2	500	510	510	2500	ppm	
774	Dimethyl carbamoyl chloride	79-44-7	0.2	0.6	4	100	ppm	
775	Dimethyl disulfide	624-92-0	0.0035	0.01	50	250	ppm	ERPG-1, -2, -3
776	Dimethyl hydrogen phosphite	868-85-9	20	60	400	500	mg/m3	
777	Dimethyl mercury	593-74-8	0.01	0.035	0.04	2	mg/m3	
778	Dimethyl methylphosphonate; (DMMP)	756-79-6	100	350	500	500	mg/m3	
779	Dimethyl phosphorochloridothioate	2524-03-0	1.5	4	30	150	mg/m3	
780	Dimethyl siloxane; (Syltherm XLT; Silicone 360)	63148-62-9	10	30	50	250	mg/m3	
781	Dimethyl sulfate	77-78-1	1.0	1.0	1.0	7	ppm	
782	Dimethyl sulfide; (2-Thiopropene)	75-18-3	50	150	1000	5000	ppm	ERPG-2 and -3 revised, ERPG-1 ignored. All Ts changed

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
783	Dimethyl sulfoxide; (DMSO)	67-68-5	35	100	500	500	mg/m3	
784	Dimethyl(1-phenylethyl)benzene	40766-31-2	10	30	50	500	mg/m3	
785	Dimethyl--2-pentene, (E)-3,4-	4914-92-5	0.4	1.25	7.5	40	ppm	
786	Dimethylacetiminde, n,n-	127-19-5	10	30	50	300	ppm	
787	Dimethylamine	124-40-3	10	15	100	350	ppm	ERPG-1 and -3 revised; ignored ERPG-1. T-3 changed
788	Dimethylamino)benzaldehyde, p-(	100-10-7	7.5	25	150	250	mg/m3	
789	Dimethylaminoazobenzene, 4-	60-11-7	15	50	75	75	mg/m3	
790	Dimethylaniline, N,N-	121-69-7	5	10	10	100	ppm	
791	Dimethylbenzidene 3,3'-; (o-Tolidine)	119-93-7	0.1	0.3	2	100	mg/m3	
792	Dimethylcyclohexane, cis-1,4-	624-29-3	0.75	2	15	75	ppm	In H&N, based on cyclohexane
793	Dimethyldecane, 2,2-	17302-37-3	50.3	50.3	259	1250	ppm	NIOSH limits for Alkanes used
794	Dimethyldichlorosilane	75-78-5	0.6	2	10	75	ppm	ERPG-1, -2, -3
795	Dimethylethyl hydroperoxide, 1,1-; (tert-Butylhydroperoxide)	75-91-2	0.75	2.5	15	50	ppm	
796	Dimethylformamide	68-12-2	2	2	100	200	ppm	ERPG-1, -2, -3
797	Dimethylheptane, 2,2-	1071-26-7	66.8	66.8	343	1500	ppm	In HC&P; NIOSH limits for Alkanes used
798	Dimethylhexane, 3,3-	563-16-6	75	75	386	2000	ppm	In HC&P; NIOSH limits for Alkanes used

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
799	Dimethylhydrazine, 1,1-	57-14-7	0.03	0.03	5	15	ppm	
800	Dimethylhydrazine, 1,2-	540-73-8	0.15	0.5	3.5	125	ppm	
801	Dimethylnonane, 2,6-	17302-23-7	125	250	250	250	ppm	Based on nonane-butane ratio
802	Dimethyloctane, 3,5-	15869-93-9	100	200	500	2500	ppm	Based on octane-butane ratio
803	Dimethylphenol, 2,4-; (2,4-Xylenol)	105-67-9	2	6	50	500	mg/m3	
804	Dimethylphenol, 2,6-; (2,6-Xylenol)	576-26-1	0.75	2	15	125	mg/m3	
805	Dimethylphthalate	131-11-3	5	15	25	500	mg/m3	
806	Dimethyl-p-phenylenediamine, N,N-	99-98-9	0.025	0.075	0.13	1	mg/m3	
807	Dimethylpropane, 2,2-; (Neopentane)	463-82-1	610	610	610	50000	ppm	
808	Dimethylpyridine, 2,4-; (2,4-Lutidine)	108-47-4	0.15	0.5	4	20	ppm	
809	Dimetilan	644-64-4	5	15	25	25	mg/m3	
810	Di-n-butylamine	111-92-2	0.5	1.5	10	50	ppm	
811	Dinitraniline orange; (Hansa orange RN)	3468-63-1	10	30	50	250	mg/m3	Name changed
812	Dinitroaniline, 2,4-	97-02-9	0.035	0.1	0.75	12.5	mg/m3	
813	Dinitrobenzene, m-	99-65-0	1	3	5	50	mg/m3	
814	Dinitrobenzene, o-	528-29-0	1	3	5	50	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
815	Dinitrobenzene, p-; (Piperidine, 1-nitroso-)	100-25-4	1	3	5	50	mg/m3	Deleted synonym "1-nitroso-piperidine"
816	Dinitro-o-cresol, 4,6- and salts	534-52-1	0.2	0.2	0.5	5	mg/m3	
817	Dinitrophenol	25550-58-7	0.25	0.75	5	25	mg/m3	
818	Dinitrophenol 2,4-	51-28-5	3	7.5	30	30	mg/m3	See also CASRN 25550-58-7
819	Dinitrophenol, 2,3-	66-56-8	0.75	2	15	75	mg/m3	
820	Dinitrophenol, 2,6-	573-56-8	0.15	0.4	3	15	mg/m3	
821	Dinitrosopiperazine; (Piperazine, 1,4-dinitroso-)	140-79-4	0.5	1.5	10	60	mg/m3	
822	Dinitrotoluene	25321-14-6	0.2	0.6	10	50	mg/m3	
823	Dinitrotoluene 2,4-	121-14-2	0.2	0.6	10	50	mg/m3	
824	Dinitrotoluene 2,6-	606-20-2	0.2	0.6	1	50	mg/m3	
825	Dinitrotoluene, 3,4-	610-39-9	0.2	0.6	1	50	mg/m3	. Limits are for mixed isomers
826	Dinoseb; (2-sec-Butyl-4,6-dinitrophenol)	88-85-7	4.5	4.5	4.5	10	mg/m3	
827	Dinoterb; (2-(1,1-Dimethylethyl)-4,6-dinitrophenol)	1420-07-1	5	15	25	25	mg/m3	
828	Diocetyl phthalate, n-;	117-84-0	15	50	400	500	mg/m3	SAX name retained
829	Diocetyl sebacate; (Bis(2-ethylhexyl) sebacate)	122-62-3	7.5	20	150	500	mg/m3	Added.
830	Diocetyl sodium sulfosuccinate; (Di-(2-ethylhexyl) sodium sulfosuccinate)	577-11-7	7.5	20	150	500	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
831	Dioxathion	78-34-2	0.2	0.6	3.5	150	mg/m3	
832	Dioxine; (TCDD; 2,3,7,8-tetrachlorodibenzo-p-dioxin)	1746-01-6	0.0006	0.0015	0.0075	0.0075	mg/m3	SAX has synonym 2,3,6,7-tetrachlorodibenzo-p-dioxin, not other databases
833	Dioxolane, 1,3-	646-06-0	20	20	69	3000	ppm	
834	Dipentaerythritol; (Dipentek)	126-58-9	10	30	50	250	mg/m3	Added. HSDB and HC&P listed, stated to be non-toxic
835	Dipentyl pentylphosphonate	6418-56-0	10	30	50	500	mg/m3	
836	Diphacinone; (Diphenadione)	82-66-6	0.15	0.5	0.9	500	mg/m3	
837	Diphenyl mercury (aryl compound)	587-85-9	0.1	0.1	0.1	10	mg/m3	
838	Diphenyl; (Biphenyl)	92-52-4	1	3.9	6.5	100	mg/m3	
839	Diphenylamine	122-39-4	10	30	125	125	mg/m3	
840	Diphenylguanidine, 1,3-	102-06-7	0.2	0.6	4	125	mg/m3	
841	Diphenylhydrazine, 1,2-	122-66-7	10	30	50	125	mg/m3	Name changed
842	Diphenylnitrosamine	86-30-6	7.5	25	150	500	mg/m3	
843	Diphenyloxazole, 2,5-	92-71-7	10	30	50	300	mg/m3	
844	Dipotassium cadmium oxide (X)	z-0013	0.01	0.06	0.1	15	mg/m3	
845	Dipotassium dihydrogen silicate	z-0014	10	30	50	250	mg/m3	MW = 140.30 for MF = K2H2SiO2

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
846	Dipotassium metasilicate	10006-28-7	6	15	125	500	mg/m3	SAR
847	Dipotassium zirconium oxide (X)	z-0015	12.5	25	25	125	mg/m3	
848	Dipropyl ketone; (4-Heptanone)	123-19-3	50	50	60	350	ppm	
849	Dipropylamine	142-84-7	15	50	350	500	mg/m3	
850	Dipropylene glycol methyl ether	34590-94-8	100	150	150	400	ppm	
851	Direct Black 38; (Apomine black GX)	1937-37-7	25	75	500	500	mg/m3	
852	Di-sec-octylphthalate	117-81-7	5	10	25	500	mg/m3	
853	Disodium (2-ethylhexyl)phosphate	13492-25-6	0.02	0.06	0.4	2	mg/m3	SAR
854	Disodium 3,6-endoxohexahydrophthalate	129-67-9	1	3	20	20	mg/m3	Name changed
855	Disodium butylphosphate	12786-93-1	0.02	0.06	0.4	2	mg/m3	SAR
856	Disodium butylphosphonate	3321-64-0	0.02	0.06	0.4	2	mg/m3	H&N lists 1-Butanephosphonic acid, MW = 138.10 SAR
857	Disodium cadmium oxide	z-0016	0.0075	0.05	0.075	15	mg/m3	
858	Disodium dihydrogen silicate	z-0017	10	30	50	250	mg/m3	
859	Disodium ethylenediaminediacetate (S and U isomers)	38011-25-5	4	12.5	75	400	mg/m3	RTECS MW = 222.18 SAR
860	Disodium iminodiacetate (IDA)	928-72-3	4	12.5	100	500	ppm	TSCA has MF with H7 rather than H5
861	Disulfiram	97-77-8	2	2	3	125	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
862	Disulfoton	298-04-4	0.05	0.15	2	75	mg/m3	
863	Dithiazanine iodide; (3,3'-Diethylpentamethinethiacyanine iodide)	514-73-8	4	12.5	20	20	mg/m3	Spelling of synonym corrected
864	Dithiobiuret	541-53-7	1	3	5	5	mg/m3	
865	Dithioerythritol, 1,4-	6892-68-8	1.25	4	25	125	mg/m3	Added.
866	Divinylbenzene, m-; (m-Vinylstyrene)	108-57-6	10	10	15	75	ppm	
867	Divinylbenzene, mixed isomers; (Vinylstyrene)	1321-74-0	10	20	50	750	ppm	
868	Dodecamethylcyclohexasiloxane	540-97-6	10	30	50	500	mg/m3	r os LD50 > 50 g/kg SAR
869	Dodecane	112-40-3	0.4	1.25	7.5	125	ppm	
870	Dodecenylsuccinic anhydride	25377-73-5	5	15	100	500	mg/m3	Added.
871	Dodecyl alcohol	112-53-8	0.5	1.5	10	500	mg/m3	
872	Dodecylbenzene sulfonic acid; (Laurylbenzenesulfonic acid)	27176-87-0	2.5	7.5	50	250	mg/m3	
873	Dodecylsarcosine sodium salt, N-; (N-laurel sarcosine sodium salt)	7631-98-3	1.5	4	30	150	mg/m3	Added.
874	Dysprosium nickelide (as Dy)	12175-27-8	10	30	50	250	mg/m3	
875	Dysprosium nitrate	10143-38-1	10	30	50	500	mg/m3	
876	Dysprosium oxide; (Dysprosium(III) oxide)	1308-87-8	20	60	400	500	mg/m3	Rat oral LD50 > 5 g/kg
877	Ecolite	z-0018	10	30	50	500	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
878	Emetine dihydrochloride, 1-	316-42-7	0.05	0.15	0.25	0.25	mg/m3	
879	Endosulfan	115-29-7	0.1	0.3	0.8	35	mg/m3	
880	Endothion	2778-04-3	3.5	10	17	17	mg/m3	
881	Endrin	72-20-8	0.1	0.3	2	2	mg/m3	
882	Epibatadine (nicotine-like)	z-0019	0.0015	0.004	0.025	0.025	mg/m3	
883	Epichlorohydrin	106-89-8	2	2	20	100	ppm	ERPG-1, -2, -3
884	Epinephrine; (Vasotonin; (R)-4-(1-hydroxy-2-(methylamino)ethyl)-1,2-Benzenediol)	51-43-4	0.25	0.25	0.25	0.25	mg/m3	Second synonym changed
885	EPN; (O-Ethyl-O-(4-nitrophenyl) phenylthiophosphonate)	2104-64-5	0.3	0.3	5	5	mg/m3	Name of synonym corrected
886	Epoxy resin; (Epichlorohydrin + diethylene glycol)	25928-94-3	0.06	0.2	1.25	6	mg/m3	
887	Epoxy resin (EPON 1001)	25068-38-6	10	30	50	500	mg/m3	
888	Epoxy resin (EPON 1007)	25068-38-7	10	30	50	500	mg/m3	Last digit of CASRN changed to distinguish from Epon 1001
889	Epoxy resin (EPON 820)	25068-38-8	10	30	50	500	mg/m3	Last digit of CASRN changed to distinguish from Epon 1001
890	Epoxy resin ERL-2795	25068-38-9	10	30	50	500	mg/m3	Last digit of CASRN changed to distinguish from Epon 1001
891	Epoxy resin, cured	30583-72-3	10	30	50	250	mg/m3	
892	Epoxybutane, 1,2- ; (1,2-Butylene oxide)	106-88-7	40	100	400	400	ppm	
893	Erbium nitrate pentahydrate	10031-51-3	10	30	50	250	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
894	Erbium(III) nitrate	10168-80-6	0.2	0.6	5	25	mg/m3	
895	Erbium(III) nitrate hexahydrate	13476-05-6	1	3	20	100	mg/m3	
896	Erbium(III) oxide	12061-16-4	20	60	400	500	mg/m3	Added. Rat LD50 > 5 g/kg
897	Ergocalciferol; (Vitamin D2)	50-14-6	7.5	25	40	40	mg/m3	Used RTECS wmn TDlo, not SAX
898	Ergotamine tartrate	379-79-3	2	6	10	60	mg/m3	
899	Estane; (Polyurethane resin; Urethane rubber)	61789-63-7	10	30	50	250	mg/m3	Added. OHMTADS lists "Estane-5703", CASRN = 51-79-6, MSDS not useful
900	Ethane	74-84-0	30000	30000	30000	30000	ppm	Asphixiant, all Ts limited to LEL=3%
901	Ethanediy)bis-benzene, 1,1'- (1,2-; (Bibenzyl)	103-29-7	15	50	400	500	mg/m3	
902	Ethanethiol; (Ethyl mercaptan)	75-08-1	0.5	10	10	500	ppm	
903	Ethanolamine	141-43-5	3	6	30	30	ppm	
904	Ethidium bromide; (2,7-Diamino-10-ethyl-9-phenylphenanthridinium bromide)	1239-45-8	0.15	0.5	4	20	mg/m3	
905	Ethion	563-12-2	0.4	1.2	13	350	mg/m3	
906	Ethoxyethanol, 2-	110-80-5	0.5	15	250	500	ppm	
907	Ethoxyethoxy)ethanol, 2-(2-; (Carbitol cellosolve; Glycol ether DE)	111-90-0	25	75	125	400	ppm	Name corrected
908	Ethoxyethylacetate, 2-	111-15-9	0.5	15	25	500	ppm	
909	Ethoxylated alcohols, C7-C21	68991-48-0	10	10	10	10	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
910	Ethoxylated nonylphenol; (Nonyl phenyl polyethylene glycol ether)	9016-45-9	5	15	100	500	mg/m3	Name changed
911	Ethyl (or dimethyl) pyrrolidine	z-0020	5	15	100	500	mg/m3	SAR
912	Ethyl acetate	141-78-6	400	400	400	2000	ppm	
913	Ethyl acrylate	140-88-5	15	15	30	300	ppm	ERPG-2, -3; ignored ERPG-1
914	Ethyl alcohol; (ethanol)	64-17-5	1000	3000	3300	3300	ppm	
915	Ethyl amyl ketone; (3-Octanone)	106-68-3	25	25	25	100	ppm	CASRN = 541-85-5 in OEV Guide, SAX, RTECS, etc.
916	Ethyl benzene	100-41-4	100	125	125	800	ppm	
917	Ethyl butyl ketone; (3-Heptanone)	106-35-4	50	75	200	1000	ppm	
918	Ethyl chloride	75-00-3	1000	1000	1000	3800	ppm	
919	Ethyl chloroformate	541-41-3	1	1	2	10	ppm	
920	Ethyl dimethylamidocyanophosphate; (Tabun; GA)	77-81-6	0.03	0.075	0.15	3	mg/m3	
921	Ethyl ether	60-29-7	400	500	500	1900	ppm	
922	Ethyl hexanoic acid, 2-; (Butyl ethyl acetic acid)	149-57-5	6	15	125	500	mg/m3	
923	Ethyl mercury chloride; (Chloroethyl mercury)	107-27-7	0.0125	0.04	0.05	2.5	mg/m3	
924	Ethyl methacrylate, (2-Methyl-2-propenoic acid, ethyl ester)	97-63-2	0.6	1.5	12.5	750	ppm	
925	Ethyl nitrite	109-95-5	0.6	2	12.5	60	ppm	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
926	Ethyl propionate	105-37-3	7.5	25	150	750	ppm	Added.
927	Ethyl s,s-dipropylphosphorodithioate, O-; (Mocap PC-84; Ethoprophos)	13194-48-4	10	30	50	50	mg/m3	SAX name retained, synonym added
928	Ethyl-1-hexanol, 2-	104-76-7	5	15	100	500	mg/m3	
929	Ethyl-2-methylheptane, 3-	14676-29-0	15	50	350	1500	ppm	Not found in databases, LC50 estimated.
930	Ethyl-2-methyloctane, 6-	z-0021	0.35	1	6	35	ppm	Undecane toxicity data used (C11 Alkanes)
931	Ethyl-5-methylheptane, 3-	52896-90-9	0.4	1.25	10	5000	ppm	
932	Ethyl 6-methyl-4-phenyl-3-cyclonexene-1-carboxylic acid sodium salt, 5-; (Carboxylic acid sodium salt)	16550-39-3	0.001	0.003	0.02	0.1	mg/m3	Name changed, synonym added
933	Ethylamine; (Monoethylamine; Ethylamine anhydrous)	75-04-7	10	15	25	600	ppm	
934	Ethylbenzaldehyde	22927-13-5	10	30	200	1000	ppm	LC50 estimated. TSCA, HC&P, H&N & MSDS CASRN = 4748-78-1 for 4-ethylbenzaldehyde, TSCA has 53951-50-1 without "4-". "2-" not found.
935	Ethylbis(2-chloroethyl)amine; (Bis(2-chloroethyl)ethylamine)	538-07-8	1.5	4	7.5	30	mg/m3	
936	Ethylene	74-85-1	150	400	3000	15000	ppm	
937	Ethylene chlorohydrin	107-07-3	1	1	7	7	ppm	
938	Ethylene dibromide	106-93-4	20	30	30	100	ppm	
939	Ethylene dichloride; (1,2-Dichloroethane)	107-06-2	50	50	200	300	ppm	ERPG-1, -2, -3
940	Ethylene fluorohydrin; (2-Fluoroethanol)	371-62-0	0.005	0.015	0.027	1.25	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
941	Ethylene glycol	107-21-1	10	20	40	60	ppm	
942	Ethylene glycol monomethyl ether; (Methyl Cellosolve(R))	109-86-4	5	5	5	1700	ppm	
943	Ethylene glycol monopropyl ether; (Propyl cellosolve, Ektasolve EP)	2807-30-9	4	12.5	75	400	ppm	
944	Ethylene glycol mono-sec-butyl ether	7795-91-7	3	10	60	350	mg/m3	
945	Ethylene oxide; (Oxirane)	75-21-8	1	5	50	500	ppm	ERPG-2, -3
946	Ethylenediamine, 1,2-	107-15-3	10	10	20	1000	ppm	
947	Ethylenediaminetetraacetic acid, disodium salt	139-33-3	60	150	500	500	mg/m3	
948	Ethylenediaminetetraacetic acid, disodium salt, dihydrate	6381-92-6	10	30	50	250	mg/m3	Added. RTECS listed, no toxicity data
949	Ethylenediaminetetraacetic acid, ferric ammonium salt; (Ammonium ethylenedinitrotetraacetoferrate(III))	21265-50-9	2.5	7.5	50	250	mg/m3	Name changed, retained other as synonym
950	Ethylenediaminetetraacetic acid, tetrasodium salt, dihydrate	10378-23-1	1.25	4	30	150	mg/m3	Added. Used Amorphous powder, CASRN = 84-02-8, SAX EIV000 data
951	Ethylenediaminetetraacetic acid; (Tetrasodium EDTA)	64-02-8	1.25	4	30	150	mg/m3	
952	Ethylenediaminetetraacetic acid; (EDTA)	60-00-4	10	30	150	150	mg/m3	Synonym corrected
953	Ethyleneimine	151-56-4	0.5	0.5	2.27	100	ppm	
954	Ethylenethiourea; (2-Imidazolidinethione)	96-45-7	3.5	10	75	500	mg/m3	
955	Ethylheptane, 4-	2216-32-2	3	10	60	350	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
956	Ethylhexyl acrylate, 2-; (Acrylic acid-2-ethylhexyl ester)	103-11-7	0.5	1.5	10	10	ppm	Added.
957	Ethylidene chloride, 1,1-; (1,1-Dichloroethane)	75-34-3	100	300	3000	3000	ppm	
958	Ethylidene norbornene	16219-75-3	0.2	0.2	100	500	ppm	Added. New ERPG-1, -2, -3
959	Ethyl-S-dimethylaminoethyl methylphosphonothiolate; (VX nerve agent)	50782-69-9	0.0001	0.00035	0.002	0.015	mg/m3	
960	Ethylthiocyanate	542-90-5	20	60	100	100	mg/m3	
961	Ethyltoluene, o-	611-14-3	0.1	0.3	2	500	mg/m3	
962	Ethyltoluene, p-	622-96-8	40	125	500	500	mg/m3	
963	Europium	7440-53-1	10	30	50	250	mg/m3	In TSCA only
964	Europium nitrate; (Europium trinitrate)	10138-01-9	15	50	350	500	mg/m3	
965	Europium oxide	1308-96-9	20	60	400	500	mg/m3	Rat oral LD50 > 5 g/kg
966	Fenamiphos	22224-92-6	0.1	0.3	0.9	40	mg/m3	
967	Fensulfothion	115-90-2	0.1	0.3	2	12.5	mg/m3	
968	Ferric ammonium citrate	1185-57-5	1	3	500	500	mg/m3	
969	Ferric ammonium sulfate dodecahydrate	7783-83-7	7.5	25	40	200	mg/m3	CASRN ex LANL, MF ex TSCA, 12.H2O added. All Ts changed
970	Ferric ammonium sulfate; Sulfuric acid, ammonium iron(3e+) salt (2:1:1)	10138-04-2	5	15	25	125	mg/m3	Added. TSCA CASRN & MF used, synonym added
971	Ferric chloride	7705-08-0	3	7.5	15	200	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
972	Ferric chloride hexahydrate	10025-77-1	5	5	20	100	mg/m3	
973	Ferric fluoride	7783-50-8	15	40	75	500	mg/m3	
974	Ferric hydroxide	1309-33-7	3.5	10	75	400	mg/m3	
975	Ferric nitrate	10421-48-4	4	12.5	20	100	mg/m3	Name corrected
976	Ferric nitrate nonahydrate; (Iron(III) nitrate nonahydrate (1:3:9))	7782-61-8	7.5	22.5	37.5	500	mg/m3	Name changed
977	Ferric phosphate	10045-86-0	2.5	7.5	12.5	60	mg/m3	
978	Ferric sulfate; (Iron(III) sulfate)	10028-22-5	3.5	10	15	75	mg/m3	LANL CASRN = 15244-10-7 not found. T-0, -1 changed
979	Ferrous ammonium sulfate	10045-89-3	5	15	25	125	mg/m3	
980	Ferrous chloride	7758-94-3	2	6	10	200	mg/m3	
981	Ferrous hydroxide	18624-44-7	3.5	10	75	400	mg/m3	
982	Ferrous sulfamate	14017-39-1	1	3	5	25	mg/m3	
983	Ferrous sulfate	7720-78-7	2.5	7.5	12.5	350	mg/m3	
984	Ferrous sulfate heptahydrate	7782-63-0	5	15	25	500	mg/m3	
985	Ferrous sulfide; (Iron sulfide)	12068-85-8	2	6	10	50	mg/m3	
986	Fibrous glass; (Fiber glass; Glass frit; Synthetic vitreous fibers)	65997-17-3	5	15	25	500	mg/m3	Added.
987	Fluonetil	4301-50-2	1.25	3.5	6	6	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
988	Fluoboric acid; (Tetrafluoroboric acid)	16872-11-0	3	3	7.5	40	mg/m3	Added.
989	Fluoranthene	206-44-0	0.005	0.015	0.1	500	mg/m3	
990	Fluorene, 9H-	86-73-7	7.5	25	150	500	mg/m3	
991	Fluorides (as F)	16984-48-8	2.5	2.5	2.5	250	mg/m3	
992	Fluorine	7782-41-4	0.1	0.5	5	20	ppm	ERPG-1, -2, -3
993	Fluorinert electronic liquid perfluoro compounds	86508-42-1	2.5	7.5	12.5	250	mg/m3	Added. TSCA listed, no toxicity data
994	Fluoro-4-nitrophenol, 2-	21571-34-6	0.75	2.5	15	75	mg/m3	SAR
995	Fluoro-4-nitrophenol, 2-	403-19-0	0.75	2.5	15	75	mg/m3	In H&N, name changed. SAR
996	Fluoro-6-nitrophenol, 2-	1526-17-6	0.75	2.5	15	75	mg/m3	SAR
997	Fluoroacetamide	640-19-7	1	3.5	5.8	5.8	mg/m3	
998	Fluoroacetic acid, sodium salt; (Sodium fluoroacetate)	62-74-8	0.05	0.15	0.5	2.5	mg/m3	
999	Fluoroacetic acid; (Fluoroethanoic acid)	144-49-0	0.075	0.25	0.47	2	mg/m3	
1000	Fluoroacetyl chloride	359-06-8	2	6	10	10	mg/m3	
1001	Fluorobenzene	462-06-6	125	350	500	500	mg/m3	Added.
1002	Fluorotrimethylsilane	420-56-4	2.5	7.5	50	250	ppm	In TSCA , H&N; based on silicon fluoride
1003	Fluorouracil	51-21-8	0.75	2.5	19	100	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1004	Fonofos	944-22-9	0.1	0.3	1.3	200	mg/m3	
1005	Food Red 15; (FD&C Red No. 19)	81-88-9	0.4	1.25	7.5	50	mg/m3	
1006	Formaldehyde	50-00-0	0.3	1	10	25	ppm	ERPG-1, -2, -3
1007	Formaldehyde cyanohydrin; (Hydroxyacetonitrile; Glycolonitrile)	107-16-4	0.125	0.35	2.57	4	ppm	
1008	Formamide	75-12-7	10	10	50	1250	ppm	
1009	Formetanate hydrochloride	23422-53-9	3.5	10	18	18	mg/m3	
1010	Formic acid	64-18-6	5	10	10	30	ppm	
1011	Formic acid, 2-propenyl ester; (Allyl formate)	1838-59-1	4	12.5	75	400	mg/m3	
1012	Formic acid, butyl ester; (n-Butyl formate)	592-84-7	50	150	1000	1000	ppm	
1013	Formothion	2540-82-1	0.05	0.15	0.27	10	mg/m3	
1014	Formparanate	17702-57-7	1.5	4	7.2	7.2	mg/m3	
1015	Fosthietan	21548-32-3	0.75	2.5	4.7	4.7	mg/m3	
1016	Fuberidazole	3878-19-1	0.6	2	3.3	125	mg/m3	
1017	Fuel oil, residual	68476-33-5	35	100	500	500	mg/m3	Name changed
1018	Fuller's earth; (Kaolin, 1332-58-7)	8031-18-3	5	6	500	500	mg/m3	Added. HSDB gives Kaolin as synonym, used Kaolin SAX data
1019	Fumaric acid	110-17-8	40	100	500	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1020	Furan	110-00-9	0.2	0.6	4	7.5	ppm	
1021	Furancarboxaldehyde, 2-; (Furfural)	98-01-1	2	2	10	100	ppm	ERPG-1, -2, -3
1022	Furancarboxylic acid, ethyl ester, 2-; (Ethyl furoate)	614-99-3	0.25	0.75	5	25	ppm	
1023	Furfuryl alcohol	98-00-0	15	15	15	75	ppm	
1024	Fusariotoxin T2; (T2-Trichothecene)	21259-20-1	0.0035	0.01	0.075	0.4	mg/m3	
1025	Gadolinium	7440-54-2	500	500	500	500	mg/m3	Added.
1026	Gadolinium hydroxide	16469-18-4	0.75	0.75	2.5	75	mg/m3	SAR
1027	Gadolinium nitrate, solid	10168-81-7	10	30	50	500	mg/m3	
1028	Gadolinium nitrite	z-0022	0.04	0.125	0.75	75	mg/m3	SAR
1029	Gadolinium(III) oxide	12064-62-9	2	6	50	500	mg/m3	Rat LD50 > 5000 mg/m3
1030	Gallium	7440-55-3	10	30	50	250	mg/m3	
1031	Gallium oxide	12024-21-4	10	30	50	500	mg/m3	
1032	Gallium trichloride	13450-90-3	6	20	32	100	mg/m3	
1033	Gallium trifluoride	7783-51-9	5	15	25	125	mg/m3	
1034	Gasoline	8006-61-9	300	500	500	1500	ppm	
1035	Gelatin; (Pharmagel A)	9000-70-8	2.5	7.5	60	300	mg/m3	Added.

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1036	Germane; (Germanium tetrahydride)	7782-65-2	0.2	0.6	1	150	ppm	
1037	Germanium oxide	1310-53-8	0.75	2	15	500	mg/m3	
1038	Germanous acid	z-0023	2	6	40	200	mg/m3	Used minimum germanium compound LD50
1039	Giemsa's stain; (... blood stain)	51811-82-6	10	30	50	250	mg/m3	Added. TSCA listed, no toxicity data
1040	Glucose, d-; (Dextrose, anhydrous)	50-99-7	0.4	1.25	7.5	500	mg/m3	Added. Pregnant women toxicity data drive Ts 0, 1, 2, which seem low.
1041	Glucose; (alpha-D-glucose; Dextrose)	492-62-6	0.4	1.25	7.5	500	mg/m3	Added. Glucose, CASRN = 50-99-7, toxicity data used.
1042	Glutamic acid, L-; ((S)-(+)-Glutamic acid)	56-86-0	2	6	40	200	mg/m3	Added.
1043	Gluteraldehyde	111-30-8	0.05	0.2	1	5	ppm	New ERPG-1, -2, -3. T-1, -2, -3 changed
1044	Glycerine (mist); (Glycerol, glycerin)	56-81-5	15	30	50	500	mg/m3	
1045	Glyceryl monostearate; (Octadecanoic acid, monoester with 1,2,3-propanetriol)	31566-31-1	10	30	50	75	mg/m3	Synonym corrected
1046	Glycidaldehyde	765-34-4	0.025	0.075	0.5	25	ppm	
1047	Glycine; (Aminoacetic acid)	56-40-6	25	75	500	500	mg/m3	Added.
1048	Glycol carbonate; (Ethylene carbonate)	96-49-1	40	125	500	500	mg/m3	Added.
1049	Glycolic acid	79-14-1	0.75	0.75	0.75	0.75	mg/m3	
1050	Glycols, polyethylene, mono(p-nonylphenyl) ether; (Nonoxynol-9)	26027-38-3	0.025	0.075	0.6	60	mg/m3	
1051	Glycoluril; (Acetyleneurea)	496-46-8	10	30	50	250	mg/m3	Added. TSCA, HC&P, H&N listed, no toxicity data

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1052	Glyoxal	107-22-2	0.1	0.3	0.5	500	mg/m3	Added.
1053	Goethite; (Iron hydroxide oxide)	1310-14-1	5	7.5	12.5	250	mg/m3	TSCA, HC&P CASRN = 20344-49-4 SAR
1054	Gold	7440-57-5	7.5	25	100	100	mg/m3	
1055	Graphite, natutal; (Carbon)	7782-42-5	2	6	10	500	mg/m3	(Carbon) is synonym, CASRN = 7440-44-0 is Graphite, synthetic
1056	Grease; (Animal grease, inedible)	68153-81-1	10	30	50	250	mg/m3	Added. TSCA listed, no toxicity data
1057	Guanidenehydrochloride	50-01-1	2	6	40	200	mg/m3	Added. SAX MW=72.11 does not match MF
1058	Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7	0.125	0.35	2.5	40	mg/m3	
1059	Hafnium	7440-58-6	0.5	1.5	2.5	50	mg/m3	
1060	Hafnium oxide	12055-23-1	0.6	1.5	3	60	mg/m3	
1061	Halon 1211; (Bromochlorodifluoromethane)	353-59-3	12.5	40	250	5000	ppm	
1062	Hansa yellow	13515-40-7	10	30	50	250	mg/m3	HSDB has MW = 339.86, but MF ex TSCA
1063	Helium	7440-59-7	60000	145000	280000	500000	ppm	Simple asphyxiant (see Introduction). T-0, -1, -2 changed
1064	Hematoxylin	517-28-2	10	30	50	250	mg/m3	
1065	Heptachlor	76-44-8	0.15	0.15	0.25	35	mg/m3	
1066	Heptachlor epoxide; (Epoxyheptachlor)	1024-57-3	0.15	0.15	0.25	6	mg/m3	
1067	Heptachlorodibenzofuran, 1,2,3,4,6,7,8-; (HeptaCDF, 1,2,3,4,6,7,8-)	67562-39-4	0.06	0.15	1.25	6	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1068	Heptachlorodibenzofuran, 1,2,3,4,7,8,9- ; (HeptaCDF, 1,2,3,4,7,8,9-)	55673-89-7	0.075	0.25	1.5	7.5	mg/m3	
1069	Heptachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8-; (HeptaCDD, 1,2,3,4,6,7,8-)	35822-46-9	0.2	0.6	2.5	2.5	mg/m3	
1070	Heptadecane	629-78-7	15	50	350	1500	ppm	
1071	Heptafluorotetrahydro-5-(nonafluorobutyl)-furan, 2,2,3,3,4,4,5-; (Fluorinert FC-75)	335-36-4	3.5	10	15	75	mg/m3	
1072	Heptane	142-82-5	440	440	440	750	ppm	
1073	Heptanol, 1-; (Heptyl alcohol)	111-70-6	3.5	10	500	500	mg/m3	
1074	Hexacarbonylchromium; (Chromium hexacarbonyl)	13007-92-6	0.05	0.1	1.3	1.25	mg/m3	
1075	Hexachlorobenzene	118-74-1	0.002	0.006	1	200	mg/m3	
1076	Hexachlorobutadiene	87-68-3	0.02	1	3	10	ppm	ERPG-1, -2, -3 revised. T-1, -2, -3 changed
1077	Hexachlorocyclohexane, alpha-; (Benzene hexachloride-alpha-isomer)	319-84-6	0.5	1.5	25	500	mg/m3	
1078	Hexachlorocyclohexane, beta-1,2,3,4,5,6-; (Benzene hexachloride, trans-alpha-)	319-85-7	0.5	1.5	2.5	500	mg/m3	SAX name switched to synonym
1079	Hexachlorocyclopentadiene	77-47-4	0.01	0.018	0.018	0.018	ppm	
1080	Hexachlorodibenzodioxin, 1,2,3,4,7,8-; (HexaCDD, 1,2,3,4,7,8-)	39227-28-6	0.0004	0.00125	0.0075	0.4	mg/m3	Name changed
1081	Hexachlorodibenzofuran, 1,2,3,4,7,8-	70648-26-9	0.0025	0.0075	0.06	0.3	mg/m3	
1082	Hexachlorodibenzofuran, 1,2,3,6,7,8-	57117-44-9	0.00075	0.0025	0.015	0.075	mg/m3	
1083	Hexachlorodibenzofuran, 1,2,3,7,8,9-; (HexaCDF, 1,2,3,7,8,9-)	72918-21-9	0.04	0.125	0.75	4	mg/m3	Name changed

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1084	Hexachlorodibenzofuran, 2,3,4,6,7,8-	60851-34-5	0.0005	0.0015	0.01	0.05	mg/m3	
1085	Hexachlorodibenzo-p-dioxin, 1,2,3,6,7,8-	57653-85-7	0.005	0.015	0.1	0.5	mg/m3	SAX differs from other sources, "4" changed to "6"
1086	Hexachlorodibenzo-p-dioxin, 1,2,3,7,8,9-; (HexaCDD, 1,2,3,7,8,9-)	19408-74-3	0.005	0.015	0.1	0.5	mg/m3	Name changed
1087	Hexachloroethane	67-72-1	1	3	5	300	ppm	
1088	Hexachloronaphthalene	1335-87-1	0.2	0.2	0.2	2	mg/m3	
1089	Hexachlorophene	70-30-4	10	10	30	200	mg/m3	
1090	Hexachloropropene	1888-71-7	0.15	0.4	3	15	ppm	
1091	Hexadecane	544-76-3	150	500	500	500	mg/m3	
1092	Hexadecanoic acid; (Palmitic acid)	57-10-3	0.3	0.75	6	50	mg/m3	
1093	Hexadecanol, 1-	36653-82-4	2.5	7.5	60	300	mg/m3	
1094	Hexadecene, 1-	629-73-2	0.4	1.25	10	50	ppm	LD and LC greater than values used
1095	Hexafluoroacetone	684-16-2	0.1	0.15	1	50	ppm	ERPG-2, -3
1096	Hexafluoropropylene; (Hexafluoropropene)	116-15-4	3.5	10	50	500	ppm	ERPG-1, -2, -3
1097	Hexafluoropropylene-vinylidene fluoride; (Viton)	9011-17-0	10	30	50	250	mg/m3	Added. TSCA listed, no toxicity data, polymer. MSDS not useful
1098	Hexamethylcyclotrisiloxane	541-05-9	10	30	200	500	mg/m3	Based on other silanes
1099	Hexamethyldisilazane	999-97-3	0.1	0.3	2	350	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1100	Hexamethyldisiloxane	107-46-0	40	125	300	300	ppm	
1101	Hexamethylene diisocyanate polymer	28182-81-2	7.5	25	200	500	mg/m3	
1102	Hexamethylene diisocyanate; (1,6-Diisocyanatohexane)	822-06-0	0.005	0.015	0.2	3.5	ppm	
1103	Hexamethylenetetraamine hydrochloride	58713-21-6	10	30	50	250	mg/m3	
1104	Hexamethylenetetraamine; (Methenamine)	100-97-0	10	30	50	500	mg/m3	
1105	Hexamethylphosphoramidate	680-31-9	0.04	0.125	0.75	150	ppm	
1106	Hexanal	66-25-1	12.5	35	200	200	ppm	
1107	Hexane	110-54-3	50	150	250	1100	ppm	
1108	Hexanehexol, 1,2,3,4,5,6-; (Mannitol)	69-65-8	500	500	500	500	mg/m3	Added.
1109	Hexanenitrile	628-73-9	0.5	1.5	10	50	ppm	
1110	Hexanoic acid	142-62-1	5	15	100	500	mg/m3	
1111	Hexanol, n-; (n-Hexyl alcohol)	111-27-3	0.75	2	15	75	ppm	
1112	Hexanone, 2-; (Methyl n-butyl ketone)	591-78-6	5	10	25	1600	ppm	
1113	Hexanone, 3-; (Ethyl propyl ketone)	589-38-8	4	12.5	75	400	ppm	
1114	Hexene, 1-	592-41-6	30	30	30	30	ppm	
1115	Hexylene glycol	107-41-5	10	25	25	350	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1116	Holmium trioxide	12055-62-8	10	30	50	250	mg/m3	Listed in TSCA, no toxicity data
1117	Hydrazine	302-01-2	0.5	0.5	5	30	ppm	ERPG-1, -2, -3
1118	Hydrazine hydrate, aqueous solutions	10217-52-4	0.02	0.04	0.04	0.04	mg/m3	
1119	Hydrazine hydrochloride; (Hydrazine monochloride)	2644-70-4	0.0075	0.025	0.04	50	mg/m3	
1120	Hydrazine mononitrate; (Hydrazinium nitrate)	7803-57-8	0.0015	0.004	0.03	25	ppm	Name changed
1121	Hydrazine nitrate; (Hydrazinium nitrate)	13464-97-6	1	3	5	25	mg/m3	
1122	Hydrazine sulfate	10034-93-2	0.6	2	15	250	mg/m3	
1123	Hydriodic acid	10034-85-2	0.035	0.1	0.5	5	ppm	Name changed
1124	Hydrobromic acid; (Hydrogen bromide)	10035-10-6	3	3	3	30	ppm	
1125	Hydrogen	1333-74-0	41000	41000	41000	41000	ppm	Asphixiant, all Ts limited to LEL=4.1%
1126	Hydrogen chloride; (Hydrochloric acid)	7647-01-0	0.5	3	20	150	ppm	ERPG-1, -2, -3
1127	Hydrogen cyanide; (Hydrocyanic acid)	74-90-8	4.7	4.7	10	25	ppm	ERPG-2, -3
1128	Hydrogen fluoride; (Hydrofluoric acid)	7664-39-3	2	2	20	50	ppm	ERPG-1, -2, -3
1129	Hydrogen peroxide	7722-84-1	1	10	50	100	ppm	ERPG-1, -2, -3
1130	Hydrogen potassium phthalate; (Phthalic acid, monopotassium salt)	877-24-7	12.5	40	250	500	mg/m3	Added. Rat LD50 > 3200 mg/kg
1131	Hydrogen selenide	7783-07-5	0.05	0.05	0.2	2	ppm	ERPG-2, -3

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1132	Hydrogen sulfide	7783-06-4	10	15	30	100	ppm	ERPG-1, -2, -3; ignored ERPG-1, reviewed, unchanged
1133	Hydroquinone	123-31-9	2	3	20	50	mg/m3	
1134	Hydrotreated (mild & severe) heavy paraffinic distillates	64742-54-7	60	150	500	500	mg/m3	
1135	Hydrotreated Middle Distillate (Petroleum base oil)	64742-46-7	20	60	400	500	mg/m3	Added.
1136	Hydroxy-2-methylpropanoic acid, 2-; (2-Methylactic acid)	594-61-6	10	30	50	250	mg/m3	Added. TSCA, HC&P, H&N listed, no toxicity data
1137	Hydroxy-4-methyl-2-pentanone, 4-; (Diacetone alcohol)	123-42-2	50	50	50	1800	ppm	
1138	Hydroxyapatite; (Calcium hydroxyapatite)	1306-06-5	12.5	35	60	500	mg/m3	SAR?
1139	Hydroxyethyl)-1-piperazineethanesulfonic acid, 4-(2-	7365-45-9	1.25	4	25	125	mg/m3	Added. RTECS and TSCA listed; quail LD50 > 316 mg/kg
1140	Hydroxyethylenediaminetriacetic acid, n-	150-39-0	1.25	4	30	150	mg/m3	
1141	Hydroxyethylidene-1,1-diphosphonic acid, 1-; (Hydroxyethylidene biphosphonic acid, 1-)	2809-21-4	10	30	50	500	mg/m3	Name changed
1142	Hydroxylamine	7803-49-8	0.25	0.75	5	25	mg/m3	
1143	Hydroxylamine chloride; (Hydroxylamine hydrochloride)	5470-11-1	15	50	60	60	mg/m3	
1144	Hydroxylamine nitrate	13465-08-2	7.5	15	26	150	mg/m3	
1145	Hydroxylamine sulfate; (Oxammonium sulfate)	10039-54-0	4	10	75	400	mg/m3	
1146	Hypophosphorus acid; (Phosphinic acid)	6303-21-5	10	30	50	250	mg/m3	
1147	Imidazole	288-32-4	4	12.5	75	100	mg/m3	Added.

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1148	Iminodiacetic acid	142-73-4	1	3	20	100	mg/m3	
1149	Indan	496-11-7	40	125	500	500	mg/m3	
1150	Indene	95-13-6	10	10	50	300	ppm	
1151	Indeno(1,2,3-cd)pyrene	193-39-5	0.15	0.5	3.5	15	mg/m3	
1152	Indigo carmine; (FD&C blue No 2)	860-22-0	20	60	75	75	mg/m3	
1153	Indium	7440-74-6	0.1	0.1	0.5	3.5	mg/m3	Added.
1154	Indium oxide (vapor)	1312-43-3	0.1	0.3	0.5	2.5	mg/m3	Changed last digit of CASRN for sorting
1155	Indium trichloride	10025-82-8	0.2	0.6	1	1	mg/m3	T-3 uses 'ip' data All Ts changed.
1156	Indium(III) oxide	1312-43-2	0.125	0.35	60	500	mg/m3	
1157	Indole-3-carboxaldehyde, 1H-; (3-Formylindole)	487-89-8	0.75	2.5	15	75	ppm	Name corrected
1158	Iodic acid	7782-68-5	0.125	0.125	0.125	2.5	mg/m3	Name changed
1159	Iodine	7553-56-2	0.1	0.1	0.5	5	ppm	ERPG-1, -2, -3
1160	Iodine 125	17144-19-3	0.1	0.1	0.5	5	ppm	Added. Used Iodine ERPGs
1161	Iron	7439-89-6	10	30	50	500	mg/m3	
1162	Iron carbide	12011-67-5	5	15	25	125	mg/m3	Treated as insoluble Fe fume
1163	Iron hydroxide oxide	20344-49-4	15	50	75	350	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1164	Iron oxide; (Ferric oxide)	1309-37-1	10	15	25	500	mg/m3	
1165	Iron pentacarbonyl	13463-40-6	0.1	0.2	0.5	1	ppm	
1166	Iron(II) chloride tetrahydrate	13478-10-9	3.5	3.5	7.5	40	mg/m3	
1167	Iron(II,III) oxide; (Ferrosferric oxide; Iron(III) oxide)	1317-61-9	10	30	50	250	mg/m3	Added. TSCA, HC&P, H&N listed, no toxicity data
1168	Isoamyl acetate; (Isopentyl acetate)	123-92-2	100	100	200	1000	ppm	
1169	Isoamyl alcohol (primary); (3-Methyl-1-butanol)	123-51-3	100	125	125	500	ppm	
1170	Isoamyl alcohol (secondary); (3-Pentanol)	584-02-1	100	125	125	500	ppm	Synonym added
1171	Isoamyl nitrite; (Isopentyl nitrite)	110-46-3	3	7.5	60	300	ppm	Name changed
1172	Isobenzan	297-78-9	2	2	2	2	mg/m3	
1173	Isobutanol-2-amine	124-68-5	0.03	0.075	0.6	500	mg/m3	
1174	Isobutyl acetate	110-19-0	150	150	250	1300	ppm	
1175	Isobutyl alcohol	78-83-1	100	150	250	1600	ppm	
1176	Isobutyl isobutyrate	97-85-8	150	500	500	500	mg/m3	
1177	Isobutylamine	78-81-9	5	5	6	35	ppm	
1178	Isobutyraldehyde	78-84-2	100	300	1500	1500	ppm	
1179	Isobutyric acid	79-31-2	0.3	1	6	35	ppm	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1180	Isobutyronitrile	78-82-0	8	10	50	200	ppm	ERPG-1, -2, -3
1181	Isocyanate-bearing waste (as CNs N.O.S.)	z-0024	5	5	5	25	mg/m3	
1182	Isocyanatoethyl methacrylate, 2-	30674-80-7	0.02	0.06	0.1	1	ppm	ERPG-2, -3 revised, unchanged
1183	Isocyanic acid-3,4-dichlorophenyl ester; (3,4-Dichlorophenyl isocyanate)	102-36-3	2.5	7.5	14	500	mg/m3	SAX and RTECS tox data conflict, SAX name retained
1184	Isodrin	465-73-6	1.25	4	7	7	mg/m3	
1185	Isooctane; (Trimethyl-2-oxepanone)	64047-30-9	30	75	500	500	mg/m3	
1186	Isopentane; (Ethylidimethylmethane; 2-Methylbutane)	78-78-4	610	610	610	20000	ppm	Synonym name changed
1187	Isophorone	78-59-1	5	5	5	200	ppm	
1188	Isophorone diisocyanate	4098-71-9	0.005	0.02	0.14	6	ppm	
1189	Isoprene	78-79-5	50	150	250	25000	ppm	
1190	Isopropyl acetate	108-21-4	250	310	310	1800	ppm	
1191	Isopropyl alcohol	67-63-0	400	400	2000	2000	ppm	
1192	Isopropyl chloride; (2-Chloropropane)	75-29-6	1250	3500	15000	15000	ppm	
1193	Isopropyl chloroformate; (Isopropyl chlorocarbonate)	108-23-6	0.25	0.75	5	20	ppm	New ERPG-2, -3, all Ts changed.
1194	Isopropyl ether; (Diisopropyl ether)	108-20-3	310	310	400	1400	ppm	Added.
1195	Isopropyl methanefluorophosphonate; (Sarin; GB)	107-44-8	0.0025	0.0075	0.05	0.6	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1196	Isopropyl titanate(IV); (Titanium(IV) isopropoxide)	546-68-9	30	75	500	500	mg/m3	Added.
1197	Isopropylamine; (2-Propanamine)	75-31-0	5	10	25	750	ppm	
1198	Isopropylmagnesium chloride; (Chloro (1-methylethyl) magnesium)	1068-55-9	1	3	20	100	mg/m3	Added. TSCA listed, no toxicity data. Rat LD50 estimated from other Mg compounds
1199	Isopropylmethylpyrazolyl dimethylcarbamate; (Isolan)	119-38-0	1	3.5	5.6	5.6	mg/m3	
1200	Jet fuels (JP-5 and JP-8)	z-0025	100	100	400	400	mg/m3	C5 = kerosene, q.v., used kerosene toxicity. C8 CASRN not assigned (LANL)
1201	Kaolin; (Aluminum silicate hydroxide)	1332-58-7	5	6	100	500	mg/m3	Added.
1202	Kepone; (Chlordecone)	143-50-0	0.001	0.003	0.5	40	mg/m3	
1203	Kerosene	8008-20-6	100	100	400	400	mg/m3	
1204	Ketene; (Carbomethene, Ethenone)	463-51-4	0.5	1.5	1.5	5	ppm	
1205	Krypton	7439-90-9	60000	145000	280000	500000	ppm	Added. Simple asphyxiant (see Introduction)
1206	Lactic acid	50-21-5	15	40	300	500	mg/m3	
1207	Lactonitrile	78-97-7	3.5	10	18	150	mg/m3	
1208	Lactose, beta-D; (beta-D-Glucopyranose)	5965-66-2	10	30	50	250	mg/m3	Added. TSCA , HC&P listed, no toxicity data
1209	Lanthanum	7439-91-0	10	30	50	250	mg/m3	
1210	Lanthanum alizarin (as La)	z-0026	10	30	50	250	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1211	Lanthanum boride	12008-21-8	15	40	75	350	mg/m3	Added. TSCA and HC&P listed, no toxicity data. Used PNOS default as La
1212	Lanthanum carbonate	6487-39-4	10	30	50	250	mg/m3	CASRN ex LANL
1213	Lanthanum fluoride	13709-38-1	7.5	7.5	37.5	250	mg/m3	
1214	Lanthanum hydroxide	14507-19-8	0.2	0.75	2	2.5	mg/m3	SAR
1215	Lanthanum nitrate	10099-59-9	0.4	1.25	7.5	500	mg/m3	
1216	Lanthanum oxide	1312-81-8	40	125	500	500	mg/m3	
1217	Lanthanum phosphate	14913-14-5	0.3	0.75	3	3	mg/m3	SAR
1218	Lanthanum(III) nitrate hexahydrate	10277-43-7	1.5	5	35	150	mg/m3	Added.
1219	Lead	7439-92-1	0.05	0.15	0.25	100	mg/m3	
1220	Lead acetate(II), trihydrate; (Bis(acetato)trihydroxytrilead)	6080-56-4	0.075	0.25	40	150	mg/m3	Changed name, original added as synonym
1221	Lead acetate, basic; (Lead subacetate)	1335-32-6	0.06	0.2	30	125	mg/m3	
1222	Lead acetate; (Lead diacetate)	301-04-2	0.075	0.2	40	150	mg/m3	
1223	Lead acid arsenate; (Dibasic lead arsenate)	7784-40-9	0.075	0.25	40	150	mg/m3	
1224	Lead arsenate	3687-31-8	0.0125	0.0125	0.0125	30	mg/m3	
1225	Lead bromide	10031-22-8	0.075	0.25	0.4	150	mg/m3	
1226	Lead carbonate	598-63-0	0.06	0.2	3	500	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1227	Lead chloride	7758-95-4	0.06	0.2	3.5	125	mg/m3	
1228	Lead chromate	7758-97-6	0.075	0.2	0.35	75	mg/m3	
1229	Lead dioxide	1309-60-0	0.06	0.18	0.3	100	mg/m3	
1230	Lead fluoborate	13814-96-5	0.075	0.25	0.4	150	mg/m3	Only stable in aqueous solution
1231	Lead fluoride	7783-46-2	0.06	0.15	3	100	mg/m3	
1232	Lead hydroxide	19783-14-3	0.06	0.15	0.3	1.5	mg/m3	
1233	Lead iodide	10101-63-0	0.1	0.35	0.5	200	mg/m3	
1234	Lead nitrate	10099-74-8	0.075	0.225	0.375	150	mg/m3	
1235	Lead nitrite	13826-65-8	0.075	0.2	0.35	1.5	mg/m3	
1236	Lead oxalate	814-93-7	0.06	0.2	0.35	1.5	mg/m3	
1237	Lead oxide; (Lead monoxide)	1317-36-8	0.05	0.05	0.1	100.0	mg/m3	
1238	Lead phosphate	7446-27-7	0.06	0.2	30	150	mg/m3	
1239	Lead sulfate	7446-14-2	0.075	0.225	0.375	150	mg/m3	
1240	Lead sulfide	1314-87-0	0.06	0.15	30	500	mg/m3	
1241	Lead tetroxide	1314-41-6	0.05	0.15	0.25	100	mg/m3	
1242	Lead(II) arsenite	10031-13-7	0.025	0.075	0.125	12.5	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1243	Leco set 7007 powder	z-0027	10	30	50	250	mg/m3	Mixture: 80-62-6 (94-96%), 2082-81-7 (3%), 5995-42-6 (>8%), 99-97-8 (0.7%)
1244	Leptophos	21609-90-5	6	15	30	30	mg/m3	
1245	Lignosulfonate (aqueous)	8062-15-5	10	30	500	500	mg/m3	
1246	Limonene, d-	5989-27-5	30	90	150	350	ppm	WEEL CASRN = 138-86-3. HSDB: (L)-Limonene for CASRN = 5989-54-8. H&N has both.
1247	Lindane; (gamma-Benzenehexachloride)	58-89-9	0.5	1.5	50.0	50.0	mg/m3	
1248	Linseed oil	8001-26-1	0.5	1.5	10	60	mg/m3	
1249	Liquified petroleum gas; (L.P.G.)	68476-85-7	1000	2000	2000	2000	ppm	
1250	Lithium	7439-93-2	10	30	50	400	mg/m3	
1251	Lithium acetate dihydrate	6108-17-4	12.5	35	250	500	mg/m3	Added. Used Li acetate, CASRN = 546-89-4, mouse LDlo
1252	Lithium aluminum oxide; (Lithium aluminate)	11089-89-7	10	30	50	250	mg/m3	
1253	Lithium aluminum silicate; (Spodumene (mineral); Petalite)	1302-66-5	2	6	10	50	mg/m3	Synonym added
1254	Lithium azide	19597-69-4	10	10	10	10	mg/m3	
1255	Lithium bromide	7550-35-8	1	7	15	500	mg/m3	
1256	Lithium carbonate	554-13-2	0.4	1.25	7.5	200	mg/m3	
1257	Lithium chloride	7447-41-8	0.5	1.5	10	60	mg/m3	Added.

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1258	Lithium chromate	14307-35-8	0.06	0.06	0.1	20	mg/m3	
1259	Lithium deuteride	13587-16-1	0.025	0.025	0.1	0.5	mg/m3	
1260	Lithium fluoride	7789-24-4	3.5	10	15	350	mg/m3	
1261	Lithium hydride	7580-67-8	0.025	0.025	0.1	0.5	mg/m3	ERPG-1, -2, -3
1262	Lithium hydroxide	1310-65-2	0.05	0.15	1	100	mg/m3	
1263	Lithium hydroxide monohydrate	1310-66-3	0.05	0.15	1	100	mg/m3	Added. Not found, but used LiOH, CASRN 1310-65-2, values.
1264	Lithium metaborate	13453-69-5	1	3	5	25	mg/m3	Added. TSCA & HC&P listed, no toxicity data.. Sodium borate TLV used.
1265	Lithium metaborate, anhydrous	1303-94-2	10	30	50	250	mg/m3	
1266	Lithium molybdate	13568-40-6	7.5	25	40	200	mg/m3	CASRN ex LANL added
1267	Lithium niobium oxide; (Lithium niobate)	12031-63-9	5	15	25	500	mg/m3	Name changed
1268	Lithium nitrate	7790-69-4	10	10	10	10	mg/m3	
1269	Lithium nitride	26134-62-3	10	10	10	10	mg/m3	
1270	Lithium nitrite	z-0028	0.025	0.06	0.4	40	mg/m3	HC&P: LiNO2.H2O MW = 127.96, CASRN = 13568-33-7. TSCA: Li.H.NO2 SAR
1271	Lithium stearate	4485-12-5	60	150	500	500	mg/m3	Added. HSDB: Probable hmn LD = 0.5-5 g/kg
1272	Lithium sulfate	10377-48-7	0.15	0.5	3.5	500	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1273	Lithium tetraborate	12007-60-2	10	30	50	250	mg/m3	MW=169.12 without 5H2O
1274	Lutetium oxide	12032-20-1	10	30	50	250	mg/m3	
1275	Magnesium	7439-95-4	10	30	50	250	mg/m3	
1276	Magnesium acetate tetrahydrate	16674-78-5	0.75	2.5	20	100	mg/m3	Added. Not found, but Mg acetate, CASRN = 142-72-3, SAX # MAD000, toxicity used
1277	Magnesium carbonate; (Magnesite)	546-93-0	15	30	50	250	mg/m3	
1278	Magnesium chloride	7786-30-3	10	30	50	500	mg/m3	
1279	Magnesium chloride hexahydrate	7791-18-6	75	250	500	500	mg/m3	Added.
1280	Magnesium fluoride	7783-40-6	4	12.5	20	400	mg/m3	
1281	Magnesium formate	557-39-1	10	10	10	10	mg/m3	
1282	Magnesium hydroxide	1309-42-8	75	200	500	500	mg/m3	
1283	Magnesium nitrate hexahydrate	13446-18-9	20	60	400	500	mg/m3	Added. Primary irritant, no toxicity data.
1284	Magnesium nitrate; (Magnesium(II) nitrate (1:2))	10377-60-3	10	30	50	250	mg/m3	
1285	Magnesium oxide	1309-48-4	10	30	50	500	mg/m3	
1286	Magnesium silicate hydrate	1343-90-4	10	30	50	250	mg/m3	Name changed
1287	Magnesium silicate; (Florisil)	1343-88-0	10	30	50	500	mg/m3	Added. Name corrected, HSDB, TSCA, H&N listed, HSDB human LD > 15 g/kg

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1288	Magnesium sulfate (1:1)	7487-88-9	0.5	1.5	10	125	mg/m3	Added. Heptahydrate CASRN = 10034-99-8, not 7487-88-9, LANL list name changed.
1289	Magnesium sulfate heptahydrate	10034-99-8	5	15	100	500	mg/m3	Added.
1290	Magnesium(II) nitrate (1:2), hexahydrate	10213-15-7	20	60	400	500	mg/m3	Added.
1291	Malathion	121-75-5	15	30	250	250	mg/m3	
1292	Maleic acid	110-16-7	10	10	50	300	mg/m3	
1293	Maleic anhydride	108-31-6	1	3	5	10	mg/m3	
1294	Maleic hydrazide; (3,6-Pyridazinedione,1,2-dihydro-)	123-33-1	0.6	2	12.5	500	mg/m3	
1295	Malonic acid; (Carboxyacetic acid)	141-82-2	10	15	50	500	mg/m3	
1296	Manganese	7439-96-5	0.2	3	5	500	mg/m3	
1297	Manganese carbonate	598-62-9	0.4	6	10	500	mg/m3	
1298	Manganese dioxide	1313-13-9	0.3	4	75	500	mg/m3	
1299	Manganese hydroxide	18933-05-6	0.3	5	7.5	500	mg/m3	
1300	Manganese nitrite	z-0029	0.5	7.5	12.5	500	mg/m3	
1301	Manganese oxalate	640-67-5	0.5	7.5	12.5	500	mg/m3	CASRN ex LANL added
1302	Manganese oxide; (Manganese tetroxide)	1317-35-7	0.25	0.75	60	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1303	Manganese phosphate	10124-54-6	0.4	6	10	500	mg/m3	CASRN ex H&N added, x = 5 for MW given.
1304	Manganese tricarbonyl methylcyclopentadienyl	12108-13-3	0.6	0.6	0.6	7.5	mg/m3	
1305	Manganese(II) chloride (1:2); (Manganous chloride)	7773-01-5	0.4	6	10	100	mg/m3	
1306	Manganese(II) chloride tetrahydrate	13446-34-9	0.75	10	150	500	mg/m3	Added.
1307	Manganese(II) nitrate	10377-66-9	0.6	10	15	500	mg/m3	
1308	Manganese(II) sulfate monohydrate	10034-96-5	0.6	7.5	15	75	mg/m3	Added.
1309	Manganese(VII) oxide	12057-92-0	0.4	6	10	50	mg/m3	
1310	Manganous oxide; (Manganese(II) oxide)	1344-43-0	0.25	0.75	6	150	mg/m3	
1311	Manganous sulfate	7785-87-7	0.5	7.5	12.5	500	mg/m3	
1312	Manganous sulfide; (Manganese(II) sulfide)	18820-29-6	0.3	0.75	7.5	500	mg/m3	
1313	Mastic (resin)	61789-92-2	4	12.5	100	500	mg/m3	
1314	Melamine	108-78-1	0.004	0.0125	0.075	75	mg/m3	
1315	Mephosfolan	950-10-7	1.5	5	9	9	mg/m3	
1316	Mercaptobenzothiazole, 2-; (2-Benzothiazolthiol)	149-30-4	2	6	40	500	mg/m3	
1317	Mercaptoethanol, 2-	60-24-2	2	6	50	200	ppm	Added.
1318	Mercuric acetate	1600-27-7	0.01	0.03	0.1	2	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1319	Mercuric cyanide	592-04-1	0.025	0.1	10	10	mg/m3	
1320	Mercuric iodide; (Mercury(II) iodide)	7774-29-0	0.05	0.15	0.2	20	mg/m3	
1321	Mercuric nitrate monohydrate	7782-86-7	0.035	0.125	0.13	12.5	mg/m3	
1322	Mercuric sulfate; (Mercury(II) sulfate)	7783-35-9	0.035	0.15	0.15	15	mg/m3	
1323	Mercuric thiocyanate; (Mercuric sulfocyanate)	592-85-8	0.04	0.1	0.15	15	mg/m3	
1324	Mercuriol; (Mercury nucleate)	12002-19-6	0.025	0.075	0.1	10	mg/m3	
1325	Mercurous chloride (see also MCY300)	7546-30-7	0.03	0.075	0.1	10	mg/m3	
1326	Mercurous nitrate; (Mercury(1) nitrate(1:1))	10415-75-5	0.03	0.125	0.125	12.5	mg/m3	
1327	Mercurous oxide	15829-53-5	0.025	0.1	0.1	10	mg/m3	
1328	Mercury hydroxide	z-0030	0.03	0.075	0.1	10	mg/m3	
1329	Mercury nitrate; (Mercury(II) nitrate (1:2))	10045-94-0	0.04	0.15	0.15	15	mg/m3	
1330	Mercury nitrite	z-0031	0.035	0.1	0.15	15	mg/m3	
1331	Mercury vapor	7439-97-6	0.025	0.1	2.05	4.10	mg/m3	ERPG-2, -3 for Hg vapor
1332	Mercury(II) chloride	7487-94-7	0.035	0.125	12.5	12.5	mg/m3	
1333	Mercury(II) oxide; (Mercuric oxide)	21908-53-2	0.025	0.1	1	10	mg/m3	
1334	Mesitylene; (1,3,5-Trimethyl benzene)	108-67-8	25	25	25	500	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1335	Methacrolein diacetate; (Acetic acid-2-methyl-2-propene-1,1-diol diester)	10476-95-6	7.5	25	44	44	mg/m3	SAX and RTECS tox data differ. Synonym corrected
1336	Methacrylaldehyde	78-85-3	0.125	0.4	2.5	12.5	ppm	
1337	Methacrylic acid	79-41-4	20	20	40	125	ppm	
1338	Methacrylic acid diester with triethylene glycol; (Polyester TGM3)	109-16-0	10	30	50	500	mg/m3	Name switched with synonym
1339	Methacrylic anhydride	760-93-0	0.75	2.5	4.5	150	mg/m3	
1340	Methacrylonitrile; (Methylacrylonitrile)	126-98-7	1	1	5	35	ppm	
1341	Methacryloyl chloride	920-46-7	0.025	0.075	0.14	6	ppm	
1342	Methamidophos	10265-92-6	3.5	10	60	60	mg/m3	
1343	Methane	74-82-8	5000	15000	25000	50000	ppm	T-3 limited to LEL = 5%
1344	Methanesulfonic acid	75-75-2	4	12.5	75	400	mg/m3	
1345	Methanesulfonic acid, ethyl ester; (Ethyl methanesulfonate)	62-50-0	0.5	1.5	10	150	mg/m3	
1346	Methanesulfonyl chloride	124-63-0	1.5	4	20	20	mg/m3	Added.
1347	Methanesulfonyl fluoride	558-25-8	3.5	3.5	3.5	3.5	ppm	
1348	Methidathion; (O,O'-Dimethyl-S-(5-methoxy-1,3,4-thiadiazoliny)l)dithiophosphate)	950-37-8	1	3	20	400	mg/m3	SAX name added as synonym
1349	Methiocarb; (Mercaptodimethur)	2032-65-7	3	7.5	15	15	mg/m3	
1350	Methomyl	16752-77-5	2.5	7.5	10	200	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1351	Methoxychlor	72-43-5	15	30	50	500	mg/m3	
1352	Methoxyethoxy)ethanol, 2-(2-; (Diethylene glycol monomethyl ether)	111-77-3	0.35	0.35	0.35	0.35	ppm	
1353	Methoxyethylamine, 2-	109-85-3	0.5	1.5	10	50	ppm	Name changed
1354	Methoxyethylmercuric acetate	151-38-2	0.015	0.05	3	3	mg/m3	
1355	Methoxypropylamine, 3-; (3-MPA)	5332-73-0	5	15	15	75	ppm	
1356	Methoxytrimethylsilane	1825-61-2	0.05	0.5	2	5	ppm	SAR
1357	Methyl 2-cyanoacrylate; (Permabond 910 adhesive)	137-05-3	0.2	4	4	12.5	ppm	Added. MF in SAX wrong
1358	Methyl 2-pyrrolidinone, 1-; (n-Methylpyrrolidone)	872-50-4	10	15	50	400	ppm	
1359	Methyl acetylene	74-99-7	1000	1700	1700	1700	ppm	
1360	Methyl acetylene-propadiene mixture; (MAPP)	59355-75-8	1000	1250	3400	3400	ppm	
1361	Methyl acrylate	96-33-3	2	2	7.5	150	ppm	
1362	Methyl alcohol; (Methanol)	67-56-1	200	200	1000	5000	ppm	ERPG-1, -2, -3 reviewed, unchanged
1363	Methyl bromide; (Bromomethane)	74-83-9	1	20	50	200	ppm	ERPG -2, -3
1364	Methyl butylacrylate, 2-; (Butyl methacrylate)	97-88-1	2.5	7.5	50	500	mg/m3	Added.
1365	Methyl chloride	74-87-3	100	100	400	1000	ppm	ERPG-2, -3 reviewed, unchanged
1366	Methyl chloroformate; (Methyl chlorocarbonate)	79-22-1	0.02	0.06	0.47	4	ppm	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1367	Methyl chlorosilane; (Chloromethylsilane)	993-00-0	0.2	0.6	4	20	ppm	Toxicity assumed from other silanes
1368	Methyl cyclohexylfluorophosphonate; (GF)	329-99-7	0.00035	0.001	0.0075	0.04	mg/m3	
1369	Methyl demeton methyl; (Phosphorothioic acid, O,O-dimethyl-S-(2-methylthio)ethyl ester)	2587-90-8	4	12.5	20	20	mg/m3	
1370	Methyl difluorophosphite; (Methylphosphonic difluoride)	676-99-3	0.75	2.5	20	100	mg/m3	
1371	Methyl ether; (Dimethyl ether)	115-10-6	1000	3000	50000	60000	ppm	
1372	Methyl ethyl ketone peroxide	1338-23-4	0.2	0.2	20	20	ppm	
1373	Methyl fluoride; (Fluoromethane)	593-53-3	4	12.5	20	400	mg/m3	
1374	Methyl fluoroacetate	453-18-9	0.015	0.05	0.35	5	mg/m3	
1375	Methyl fluorosulfate	421-20-5	0.0025	0.0075	0.05	0.25	ppm	
1376	Methyl formate; (Formic acid, methyl ester)	107-31-3	100	150	500	4500	ppm	
1377	Methyl iodide	74-88-4	5	25	50	125	ppm	ERPG-1, -2, -3 reviewed, unchanged
1378	Methyl isobutyl ketone; (Hexone)	108-10-1	75	75	250	500	ppm	
1379	Methyl isocyanate	624-83-9	0.02	0.025	0.5	5	ppm	ERPG-1, -2, -3
1380	Methyl isopropyl ketone; (3-Methyl-2-butanone)	563-80-4	200	200	200	600	ppm	
1381	Methyl isothiocyanate; (Isothiocyanatomethane)	556-61-6	1.5	4	33	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1382	Methyl lithium	917-54-4	1	3	20	100	mg/m3	Added. No toxicity data found. Spontaneous ignition in air: estimated from LiO and LiOH toxicity. MSDS has no useful data.
1383	Methyl mercaptan	74-93-1	0.5	10	25	100	ppm	ERPG-1, -2, -3; ignored ERPG-1
1384	Methyl mercury	22967-92-6	0.01	0.03	0.04	0.2	mg/m3	
1385	Methyl methacrylate	80-62-6	100	100	100	1000	ppm	
1386	Methyl n-amyl ketone	110-43-0	100	100	125	800	ppm	
1387	Methyl parathion	298-00-0	0.2	0.34	0.35	15	mg/m3	
1388	Methyl phencapton	3735-23-7	2	6	11	100	mg/m3	
1389	Methyl phosphonic dichloride	676-97-1	0.06	0.2	1.4	15	mg/m3	
1390	Methyl phosphonothioic dichloride	676-98-2	1.5	4	30	150	mg/m3	LC50 estimated from similar compounds
1391	Methyl pyridine, 3-: (3-Picoline)	108-99-6	2	5	10	1500	ppm	
1392	Methyl salicylate	119-36-8	0.125	0.4	2.5	12.5	ppm	
1393	Methyl sulfoxide-D6; (Dimethyl-D6-sulfoxide)	2206-27-1	35	100	500	500	mg/m3	Added. H&N listed, no toxicity data, but use DUD800, CASRN=67-68-5
1394	Methyl tert-butyl ether	1634-04-4	50	150	250	10000	ppm	
1395	Methyl thiocyanate	556-64-9	5	15	28.4	28.4	ppm	
1396	Methyl vinyl carbinol; (3-Buten-2-ol)	598-32-3	0.25	0.75	5	25	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1397	Methyl vinyl ketone; (3-Buten-2-one)	78-94-4	0.2	0.2	0.2	0.25	ppm	T-0, T-1 changed
1398	Methyl-1-butene, 2-	563-46-2	15000	15000	15000	15000	ppm	Asphixiant, all Ts limited to LEL=1.5%
1399	Methyl-1H-benzotriazole	29385-43-1	10	30	50	300	mg/m3	
1400	Methyl-1-phenyl-2-pyrazolin-5-one, 3-	89-25-8	15	40	300	500	mg/m3	
1401	Methyl-1-propene-1-one, 2-; (Dimethylketene)	598-26-5	0.03	0.1	0.6	3.5	ppm	Toxicity based on ketene
1402	Methyl-2-chloroacrylate	80-63-7	0.05	0.15	1	7.5	ppm	
1403	Methyl-2-hexanone, 5-; (Methyl isoamyl ketone)	110-12-3	100	150	1500	1500	ppm	
1404	Methyl-3-pentene-2-one, 4-; (Mesityl oxide)	141-79-7	25	25	25	1400	ppm	
1405	Methyl-4-pentene-2-one, 4-	3744-02-3	25	25	25	1400	ppm	Based on mesityl oxide (CASRN 141-79-7)
1406	Methyl-5-nitroaniline, 2-; (5-Nitro-o-toluidine; Benzenamine, 2-methyl-5-nitro-)	99-55-8	7.5	20	150	250	mg/m3	
1407	Methyl-5-vinylpyridine, 2-	140-76-1	0.35	1	1.9	40	mg/m3	
1408	Methylal; (Dimethoxymethane)	109-87-5	1000	2200	2200	2200	ppm	
1409	Methylaniline, n-	100-61-8	1.5	1.5	2.5	100	ppm	
1410	Methylaziridine, 1-	1072-44-2	2	2	2	100	ppm	LClo > 2000 mg/m3, SAR
1411	Methylbutanamide, 3-; (Isovaleramide)	541-46-8	6	20	125	500	mg/m3	
1412	Methylcellulose	9004-67-5	10	30	50	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1413	Methylchlorodisilane; (Chloromethylidisilane)	68937-17-7	0.1	0.3	2	10	ppm	
1414	Methylcholanthrene 3-	56-49-5	0.2	0.6	4	75	mg/m3	
1415	Methylcyclohexane	108-87-2	500	1200	1200	1200	ppm	
1416	Methylcyclohexanone	1331-22-2	1.5	5	40	200	ppm	
1417	Methylcyclohexanone, 2-; (o-Methylcyclohexanone)	583-60-8	75	75	125	600	ppm	
1418	Methylene bis(2-chloroaniline), 4,4'-; (MBOCA)	101-14-4	0.01	0.03	0.5	40	ppm	
1419	Methylene bis(4-isocyanatocyclohexane), 1,1'-	5124-30-1	0.005	0.005	0.01	0.15	ppm	
1420	Methylene chloride	75-09-2	25	200	750	4000	ppm	ERPG-1, -2, -3
1421	Methylene diphenyl diisocyanate (Diphenylmethane diisocyanate; MDI)	101-68-8	0.05	0.2	2	25	mg/m3	ERPG-1, -2, -3
1422	Methylenebisacrylamide copolymer, n,n-	25034-58-6	10	30	50	250	mg/m3	Added. No toxicity data found, PNOS default used.
1423	Methylenedianiline, 4,4'-	101-77-9	0.01	0.1	0.5	15	ppm	
1424	Methylethyl hydroperoxide, 1-; (Isopropyl hydroperoxide)	3031-75-2	0.6	1.5	12.5	60	mg/m3	Based on Isopropylbenzenhydroperoxide
1425	Methylfuran, 2-	534-22-5	6	20	50	50	ppm	
1426	Methylheptane, 4-	589-53-7	10	30	50	250	ppm	No toxicity data; could not confirm Intertox TLV-TWA
1427	Methylimidazole, 1-	616-47-7	6	15	125	500	mg/m3	Added.
1428	Methylactic acid ethyl ester, 2-; (Ethyl 2-hydroxyisobutyrate)	80-55-7	15	50	400	500	mg/m3	Name changed

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1429	Methylacetonitrile 2-	75-86-5	5	5	12.5	20	mg/m3	
1430	Methylmercuric dicyanamide	502-39-6	0.015	0.04	3	3	mg/m3	
1431	Methylnaphthalene, 1-	90-12-0	6	20	500	500	mg/m3	
1432	Methylnaphthalene, 2-	91-57-6	6	20	125	500	mg/m3	
1433	Methylnitrosopiperidine, 3-; (Piperidine, 3-methyl-1-nitroso-)	13603-07-1	0.06	0.15	1.25	6	ppm	
1434	Methylpentane, 2- (Isohexane)	107-83-5	500	510	510	2500	ppm	
1435	Methylphenol, 2-; (o-Cresol)	95-48-7	5	5	25	250	ppm	
1436	Methylphenol, 3-; (m-Cresol)	108-39-4	5	5	25	250	ppm	
1437	Methylphenol, 4-; (p-Cresol)	106-44-5	5	5	25	250	ppm	
1438	Methylphenylthiourea, 2-; (o-Tolyl thiourea)	614-78-8	10	30	50	50	mg/m3	
1439	Methylphosphonothioic acid-O-(4-nitrophenyl)-O-phenyl ester	2665-30-7	1.5	5	8	8	mg/m3	
1440	Methylphosphonothioic acid-O-ethyl O-(4-(methylthio)phenyl) ester.	2703-13-1	2	6	10	10	mg/m3	
1441	Methylpropane, 2-; (Isobutane)	75-28-5	800	2400	4000	15000	ppm	
1442	Methyl-propene, 2- (Isobutene)	115-11-7	1000	3000	20000	100000	ppm	
1443	Methylpropylnitrosoamine: (N-Methyl-N-nitroso-1-propanamine)	924-46-9	0.01	0.03	0.2	4	ppm	
1444	Methylpyridine, 2-; (2-Picoline)	109-06-8	2	2	5	300	ppm	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1445	Methylpyrrolidine	120-94-5	0.75	2	15	75	mg/m3	Added. See Ethyl (or methyl) pyrrolidine
1446	Methyltetrahydrofuran	96-47-9	1	3	20	100	ppm	Added.
1447	Methyltriacetoxysilane	4253-34-3	7.5	25	150	500	mg/m3	
1448	Methyltrichlorosilane	75-79-6	0.15	0.5	3	15	ppm	ERPG-1, -2, -3
1449	Methyl-trifluoromethanesulfonate	333-27-7	7.5	20	35	500	mg/m3	Added. TSCA listed, no toxicity data found
1450	Methyltrioctylammonium chloride	5137-55-3	0.75	2.5	20	100	mg/m3	
1451	Metolcarb; (Methylcarbamic acid m-tolyl ester)	1129-41-5	1	3	5	200	mg/m3	
1452	Mevinphos; (Phosdrin)	7786-34-7	0.1	0.27	4	4	mg/m3	
1453	Mexacarbate; (4-(Dimethylamine)-3,5-xylyl N-methylcarbamate)	315-18-4	2.5	7.5	14	14	mg/m3	
1454	Mica; (mica silicates)	12001-26-2	3	9	15	75	mg/m3	IDLH not used
1455	Michler's ketone; (4,4'-bis(dimethylamino)benzophenone)	90-94-8	1	3.5	25	40	mg/m3	
1456	Mineral fibers, fine	z-0032	10	30	50	250	mg/m3	
1457	Mineral oil, heavy or light; (Paraffin oil; Deobase, deodorized)	8020-83-5	150	500	500	500	mg/m3	Added.
1458	Mineral oil, petroleum distillates, heavy naphthenic	64741-53-3	35	100	500	500	mg/m3	Added.
1459	Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	64741-88-4	20	60	400	500	mg/m3	Added. No toxicity data. Rat oral LD50 for similar compounds > 5 g/kg
1460	Mineral oil, white	8042-47-5	10	30	500	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1461	Mineral oil; (Oil mist, mineral)	8012-95-1	5	10	10	500	mg/m3	
1462	Mirex; (Perchloropentacyclodecane)	2385-85-5	0.03	0.075	0.6	100	mg/m3	
1463	Mitomycin C	50-07-7	4	12.5	23	23	mg/m3	
1464	Molecular sieve activated, type 3A; (Zeolite; Aluminosilicate)	68989-21-9	10	30	50	250	mg/m3	Added. Not found. MSDS has no compound-specific useful data.
1465	Molecular sieve activated, type 5A	68989-20-8	10	30	50	250	mg/m3	Added. Not listed, no toxicity data found.
1466	Molecular sieve type 13X; (Zeolite)	68989-23-1	10	30	50	250	mg/m3	Added.
1467	Molecular sieve, type 4A	70955-01-0	10	30	50	250	mg/m3	Added. Not found, PNOS option used
1468	Molecular sieves	63231-69-6	10	30	50	250	mg/m3	Added. Not found, PNOS option used
1469	Molybdate orange	12656-85-8	5	15	25	500	mg/m3	
1470	Molybdenum	7439-98-7	10	30	50	500	mg/m3	
1471	Molybdenum carbide	12011-97-1	10	35	50	500	mg/m3	Added. LD > 250 mg/kg
1472	Molybdenum dioxide	18868-43-4	12.5	40	60	60	mg/m3	
1473	Molybdenum disilicide	12136-78-6	15	40	75	500	mg/m3	Added. HC&P, TSCA listed, no toxicity data
1474	Molybdenum trioxide	1313-27-5	15	15	15	500	mg/m3	
1475	Molybdenum(IV) sulfide	1317-33-5	15	50	75	500	mg/m3	Added. Rat oral LD50 > 2 g/kg

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1476	Molybdic acid	7782-91-4	2.5	2.5	4	500	mg/m3	TSCA listed, no toxicity data. Mo compounds, treated as soluble. Added CASRN ex LANL
1477	Molybdic acid, disodium salt; (Disodium molybdate)	7631-95-0	10	30	50	500	mg/m3	Synonym added
1478	Molybdic acid, hexaammonium salt; (Ammonium heptamolybdate)	12027-67-7	7.5	25	40	500	mg/m3	
1479	Molybdophosphoric acid; (Phosphomolybdic acid hydrate)	51429-74-4	2.5	2.5	4	500	mg/m3	Added. No toxicity data found. TSCA CASRN = 12207-90-8 for molybdophosphoric acid.
1480	Monobutyl phosphite	16456-56-7	6	20	150	500	mg/m3	
1481	Monochloroamine; (Chloramide)	10599-90-3	0.2	0.6	4	20	ppm	
1482	Monochloropentafluoroethane; (CFC-115)	76-15-3	1000	3000	5000	300000	ppm	
1483	Monocrotophos	6923-22-4	0.05	0.15	0.63	25	mg/m3	
1484	Monomethylamine; (Methylamine)	74-89-5	10	10	100	500	ppm	ERPG-1, -2, -3 reviewed, unchanged
1485	Monomethylhydrazine; (Methyl hydrazine)	60-34-4	0.01	0.2	0.5	20	ppm	
1486	Monosodium titanate	60704-88-3	10	30	50	250	mg/m3	MSDS #18858-00 CASRN 12034-36-5 TSCA has MF = Na.H-O5-Ti2
1487	Morpholine	110-91-8	20	30	30	1400	ppm	
1488	Morpholinepropanesulfonic acid, 4-	1132-61-2	1.25	4	25	125	mg/m3	Added. Quail LD50 > 316 mg/m3
1489	Muscimol; (5-Aminomethyl-3-isoxazole)	2763-96-4	3.5	10	17	20	mg/m3	
1490	Myristic acid, butyl ester; (Tetradecanoic acid, butyl ester)	110-36-1	3	7.5	60	300	ppm	Rat oral LD50 > 8 g/kg

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1491	Myristic acid, isopropyl ester; (Tetradecanoic acid, isopropyl; Isopropyl myristate),	110-27-0	200	500	500	500	mg/m3	
1492	Nabumetone; (Relafen; 4-(6-methoxy-2-naphthyl)-2-butanone)	42924-53-8	10	30	50	500	mg/m3	
1493	Nadic methyl anhydride	25134-21-8	0.75	2	15	75	mg/m3	Added.
1494	Naphtha (coal tar)	8030-30-6	100	100	500	1000	ppm	
1495	Naphtha, hydrotreated heavy	64742-48-9	10	30	50	250	mg/m3	
1496	Naphthalenamine, 1-; (1-Naphthylamine)	134-32-7	4	12.5	75	350	mg/m3	
1497	Naphthalene	91-20-3	10	15	35	250	ppm	
1498	Naphthaleneacetamide, 1-	86-86-2	6	20	150	500	mg/m3	
1499	Naphthenic acid, lead salt	61790-14-5	0.05	0.15	25	100	mg/m3	For stated MW, x = 7
1500	Naphthoquinone, 1,4-	130-15-4	0.075	0.25	1.5	75	mg/m3	
1501	Naphthylamine, beta-	91-59-8	2.5	7.5	50	300	mg/m3	
1502	Naphthylthiourea, alpha-; (ANTU)	86-88-4	0.3	0.9	10	100	mg/m3	
1503	Naptha (petroleum), heavy catalytic cracked	64741-54-4	6	15	125	500	mg/m3	
1504	Neodecanoic acid	26896-20-8	12.5	40	300	500	mg/m3	
1505	Neodymium bromide	13536-80-6	10	30	50	250	mg/m3	
1506	Neodymium fluoride	13709-42-7	7.5	25	40	250	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1507	Neodymium hydroxide	16469-17-3	0.75	0.75	2	75	mg/m3	SAR
1508	Neodymium nitrate	10045-95-1	7.5	25	150	500	mg/m3	
1509	Neodymium nitrite	z-0033	0.04	0.1	0.75	75	mg/m3	SAR
1510	Neodymium(III) chloride	10024-93-8	0.06	0.15	1.25	6	ppm	
1511	Neodymium(III) oxide	1313-97-9	10	30	50	500	mg/m3	Rat oral LD50 > 5 g/kg
1512	Neon	7440-01-9	60000	145000	280000	500000	ppm	Added. Simple asphyxiant (see Introduction)
1513	Nickel	7440-02-0	1	4.5	10	10	mg/m3	
1514	Nickel carbonate hydroxide; (Basi nickel carbonate tetrahydrate)	39430-27-8	2	2	2	20	mg/m3	Added. LANL CASRN = 12244-51-8 not found, replaced. See also SAX NCY600, 12607-70-4
1515	Nickel carbonate hydroxide; (Basic nickel(II) carbonate)	12607-70-4	1	1	1.5	15	mg/m3	Added.
1516	Nickel carbonyl	13463-39-3	0.003	0.05	0.05	6	ppm	
1517	Nickel chloride; (Nickelous chloride)	7718-54-9	0.6	0.6	1	20	mg/m3	
1518	Nickel cyanide	557-19-7	0.35	1	7.5	15	mg/m3	PEL-TWA ignored
1519	Nickel formate	3349-06-2	3	3	3	30	mg/m3	
1520	Nickel oxalate (liquids)	6018-94-5	0.75	0.75	1.25	25	mg/m3	Last digit of CASRN changed for sorting
1521	Nickel oxalate (solids)	6018-94-6	1.5	1.5	2.5	25	mg/m3	CASRN ex LANL added, differs from LLNL CASRN = 547-67-1

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1522	Nickel oxide; (Nickel(II) oxide)	1313-99-1	0.75	0.75	12.5	12.5	mg/m3	
1523	Nickel sulfamate; (Nickel(II) sulfamate)	13770-89-3	2.5	2.5	4	200	mg/m3	Added.
1524	Nickel sulfate hexahydrate; (Nickel(II) sulfate hexahydrate)	10101-97-0	1.25	1.25	2	40	mg/m3	
1525	Nickel sulfate; (Nickel(II) sulfate)	7786-81-4	2.5	2.5	2.5	25	mg/m3	
1526	Nickel(II) bromide	13462-88-9	1	1	1.5	35	mg/m3	Added. TSCA listed, no toxicity data, sol. compound
1527	Nickel(II) chloride hexahydrate	7791-20-0	1.25	1.25	20	40	mg/m3	
1528	Nickel(II) hydroxide; (Nickelous hydroxide)	12054-48-7	0.75	0.75	1.5	15	mg/m3	SAX has CASRNs of nickelous and nickelic reversed
1529	Nickel(II) nitrate hexahydrate	13478-00-7	1.5	1.5	50	50	mg/m3	
1530	Nickel(II) nitrate; (Nickelous nitrate)	13138-45-9	3	3	3	30	mg/m3	
1531	Nickel(II) nitrite	17861-62-0	0.3	0.3	0.5	10	mg/m3	
1532	Nickel(II) phosphate	10381-36-9	0.6	0.6	1	10	mg/m3	
1533	Nickel(III) hydroxide; (Nickelic hydroxide)	12125-56-3	1	1	1.5	15	mg/m3	CASRN = 12125-56-3 is Ni(OH) ₃ ; 12054-487 is Ni(OH) ₂ ; 11113-74-9 is Ni.OH, but databases differ. Ni.OOH (Ni oxy OH) not found
1534	Nicotine salts; (d1-beta-Nicotine; DL-Nicotine)	22083-74-5	1.25	3.5	3.5	75	mg/m3	
1535	Nicotine Sulfate	65-30-5	4	9	9	9	mg/m3	
1536	Nicotine; (Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-)	54-11-5	0.5	1.5	3.5	5	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1537	Niobium	7440-03-1	40	125	500	500	mg/m3	Added. Rat LD50 > 10 g/kg
1538	Niobium chloride	10026-12-7	6	15	125	500	mg/m3	
1539	Niobium pentoxide; (Niobium(V) oxide)	1313-96-8	60	150	500	500	mg/m3	Added. Rat oral LD50 > 10 g/kg
1540	Niobium(IV) carbide	12069-94-2	10	35	50	250	mg/m3	Added. TSCA listed, no toxicity data
1541	Nitrapyrin; (2-Chloro-6-(trichloromethyl)pyridine)	1929-82-4	15	20	50	400	mg/m3	
1542	Nitrate(s)	14797-55-8	10	30	50	250	mg/m3	
1543	Nitric acid WFNA; (White Fuming)	7697-37-2	1	1	6	78	ppm	ERPG-1, -2, -3 (LANL CASRN = 52583-423)
1544	Nitric oxide	10102-43-9	24.5	24.5	25	100	ppm	
1545	Nitrilotriacetic acid; (Aminotriacetic acid)	139-13-9	35	100	500	500	mg/m3	
1546	Nitroaniline, 2-; (o-Nitroaniline)	88-74-4	6	20	125	500	mg/m3	Rat 4 hr LC50 > 2529 mg/m3
1547	Nitroaniline, 3-; (m-Nitroaniline)	99-09-2	0.75	2.5	15	200	mg/m3	
1548	Nitroaniline, p-	100-01-6	6	9	150	300	mg/m3	
1549	Nitrobenzene	98-95-3	1	3	20	200	ppm	
1550	Nitrobiphenyl, 4- ; (p-Nitrobiphenyl)	92-93-3	0.25	0.75	5	500	mg/m3	
1551	Nitrochlorobenzene, m-; (1-Chloro-3-nitrobenzene; m-chloronitrobenzenebenzene)	121-73-3	0.06	0.2	1.25	150	mg/m3	
1552	Nitrocyclohexane	1122-60-7	0.3	0.75	1.5	60	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1553	Nitrocyclohexene, 1-; (1-Nitrocyclohex-1-ene)	2562-37-0	0.35	1	7.5	40	ppm	SAR
1554	Nitrodiphenylamine, 2-	119-75-5	30	100	500	500	mg/m3	Used p-nitrodiphenylamine (CASRN = 836-30-6)
1555	Nitroethane	79-24-3	100	100.00	200	1000	ppm	
1556	Nitrogen	7727-37-9	60000	145000	280000	500000	ppm	T values represent added nitrogen
1557	Nitrogen dioxide	10102-44-0	1	1	15	30	ppm	New ERPGs. All Ts changed
1558	Nitrogen mustard hydrochloride	55-86-7	0.75	2.5	4	4	mg/m3	
1559	Nitrogen mustard; (Bis(b-chloroethyl)methylamine)	51-75-2	1.25	4	29	29	mg/m3	
1560	Nitrogen tetroxide	10544-72-6	3	5	5	20	ppm	
1561	Nitrogen trifluoride	7783-54-2	10	10	40	1000	ppm	
1562	Nitrogen trioxide; (Dinitrogen trioxide)	10544-73-7	25	50	100	500	ppm	TSCA, HC&P listed, CASRN 12033-49-7 not found, data source uncertain
1563	Nitroglycerin	55-63-0	0.1	0.1	2	75	mg/m3	
1564	Nitromethane	75-52-5	60	60	100	750	ppm	
1565	Nitrophenol (mixed isomers)	25154-55-6	0.75	2.5	15	75	mg/m3	Used most toxic isomer Ts.
1566	Nitrophenol, 2-; (o-Nitrophenol)	88-75-5	1.25	4	30	150	mg/m3	
1567	Nitrophenol, 3-; (m-Nitrophenol)	554-84-7	1.25	4	30	150	mg/m3	
1568	Nitrophenol, 4-; (p-Nitrophenol)	100-02-7	0.75	2.5	15	75	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1569	Nitropropane, 1-	108-03-2	25	25	25	1000	ppm	
1570	Nitropropane, 2-	79-46-9	25	30	50	100	ppm	
1571	Nitropyrene, 1-	5522-43-0	0.1	0.3	2	10	mg/m3	
1572	Nitropyridine-n-oxide, 4-; (Pyridine, 4-nitro-1-oxide)	1124-33-0	15	50	80	80	mg/m3	
1573	Nitrosodimethylamine	62-75-9	3.5	10	19	19	mg/m3	
1574	Nitrosodiphenylamine, p-	156-10-5	0.1	0.3	2	150	mg/m3	
1575	Nitrosodipropylamine; (DPNA)	621-64-7	0.06	0.2	1.25	200	mg/m3	
1576	Nitrosomorpholine	59-89-2	12.5	30	30	30	mg/m3	
1577	Nitroso-n-methylurea, n-	684-93-5	0.015	0.05	0.35	50	mg/m3	
1578	Nitrosophenol, p-	104-91-6	2	6	40	200	mg/m3	
1579	Nitrosotoluene, p-	611-23-4	7.5	25	150	500	mg/m3	
1580	Nitrosyl chloride	2696-92-6	0.025	0.075	0.5	2.5	ppm	
1581	Nitrotoluene, m-	99-08-1	5	6	10	200	ppm	
1582	Nitrotoluene, o-	88-72-2	5	6	10	60	ppm	
1583	Nitrotoluene, p-	99-99-0	5	6	10	200	ppm	
1584	Nitrous acid	7782-77-6	1	3	15	200	mg/m3	OHMTADS listed , used HNO3 limits

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1585	Nitrous oxide	10024-97-2	50	150	10000	20000	ppm	
1586	Nonacosane	630-03-5	10	30	50	250	mg/m3	
1587	Nonanal	124-19-6	12.5	40	300	500	mg/m3	
1588	Nonane (Shellsol 140)	111-84-2	200	600	1000	1250	ppm	
1589	Nonanenitrile; (1-Octyl cyanide)	2243-27-8	25	25	30	150	ppm	Used PEL-TWA for cyanides
1590	Nonanone, 2-	821-55-6	1	3	20	75	ppm	Rat LClo > 3980 mg/m3
1591	Nonoxynol-4	7311-27-5	10	30	50	250	mg/m3	
1592	Nonyl phenol (mixed isomers)	25154-52-3	6	20	125	500	mg/m3	
1593	Nonyl phenol, 4- (branched)	84852-15-3	5	15	100	500	mg/m3	
1594	Nonyl phenol, p-	104-40-5	6	20	125	500	mg/m3	
1595	Nonylphenol ethoxylate	127087-87-0	10	30	200	500	mg/m3	
1596	Nonylphenoxypolyethoxyethanol	68412-54-4	10	30	50	250	mg/m3	
1597	Norbormide	991-42-4	0.75	2	3.8	3.8	mg/m3	
1598	Norchlorofluoroepibatidine	z-0034	0.00004	0.00013	0.00075	0.00125	mg/m3	
1599	Octachlorodibenzodioxane, 1,2,3,4,6,7,8,9-; (OCDD, Octachlorodibenzo-p-dioxin)	3268-87-9	0.025	0.075	0.4	0.4	mg/m3	
1600	Octachlorodibenzofuran, 1,2,3,4,6,7,8,9-	39001-02-0	0.003	0.0075	0.06	10	mg/m3	LC50 based on other CDFs

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1601	Octachloronaphthalene	2234-13-1	0.1	0.3	0.5	2.5	mg/m3	
1602	Octachloronaphthalene; (Wax blocks (halowax))	71808-29-2	0.1	0.3	0.3	0.3	mg/m3	Added. SAX CASRN = 2234-13-1; pchem data vary. CASRN only in TSCA, no CI in MF
1603	Octacosane	630-02-4	0.3	0.3	50	250	mg/m3	
1604	Octadecanoic acid, n-; (Stearic acid)	57-11-4	0.1	0.3	15	15	mg/m3	
1605	Octadecanol, 1-	112-92-5	2.5	7.5	50	750	ppm	
1606	Octafluorocyclobutane; (Cyclooctafluorbutane; Freon C-318)	115-25-3	25000	75000	300000	300000	ppm	
1607	Octamethylcyclotetrasiloxane	556-67-2	12.5	35	250	300	ppm	SAR Ts = 10, 30, 50, 500 mg/m3 not used
1608	Octamethyldiphosphoramidate; (Octamethylpyrophosphoramidate)	152-16-9	0.15	0.5	0.8	3.5	mg/m3	
1609	Octanal, 1-; (Octanol; Octanaldehyde)	124-13-0	20	60	500	500	mg/m3	
1610	Octane, n-	111-65-9	300	300	400	1000	ppm	
1611	Octanedione, 2,7-	3214-41-3	20	60	500	500	mg/m3	Toxicity based on octane
1612	Octanenitrile	124-12-9	1.5	4	30	150	ppm	
1613	Octanone, 2-	111-13-7	60	200	200	500	mg/m3	
1614	Octene, 1-	111-66-0	10	30	50	250	mg/m3	
1615	Octyl alcohol; (n-octanol)	111-87-5	3.5	10	350	500	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1616	Octyl(phenyl)-N,N-diisobutylcarbamoylmethylphosphine oxide	83242-95-9	10	30	50	250	mg/m3	
1617	Oil gas; (Oil fog)	z-0035	450	1750	3000	4500	ppm	4.2% illuminants, 10.4% CO, 47.6% H, 27.0% CH4, 4.6% CO2, 5.8% N, 0.4% O2
1618	Oleum; (fuming sulfuric acid)	8014-95-7	1	2	10	30	mg/m3	Sulfuric acid ERPGs apply
1619	Organorhodium complex	z-0036	0.3	7.5	15	500	mg/m3	MW assumed, insol Rh conc. limits used. CASRN not assigned (LANL)
1620	Osmium tetroxide	20816-12-0	0.00075	0.00075	0.010	1.25	ppm	
1621	Ouabain	630-60-4	1.5	5	8.3	12.5	mg/m3	
1622	Oxalic acid, anhydrous; (Ethanedioic acid)	144-62-7	1	2	5	500	mg/m3	
1623	Oxalic acid, dihydrate	6153-56-6	1	2	5	500	mg/m3	
1624	Oxamide	471-46-5	1.5	5	40	200	mg/m3	Added.
1625	Oxamyl	23135-22-0	0.35	1	1.7	15	mg/m3	
1626	Oxathiane, 1,4-	15980-15-1	4	12.5	75	400	ppm	
1627	Oxirane, ethenyl-; (3,4-Epoxy-1-butene)	930-22-3	3	10	25	25	ppm	
1628	Oxydiacetic acid; (Oxodiacetic acid)	110-99-6	2	6	40	200	mg/m3	
1629	Oxydiphenoxarsine, 10,10'-; (Phenoxyarsine oxide)	58-36-6	1.5	2	14	14	mg/m3	
1630	Oxydisulfoton	2497-07-6	0.6	2	3.5	3.5	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1631	Oxygen (liquid)	7782-44-7	250000	500000	750000	1000000	ppm	TEEL values represent TOTAL oxygen.
1632	Oxygen difluoride; (Fluorine monoxide)	7783-41-7	0.05	0.05	0.05	0.5	ppm	
1633	Ozone	10028-15-6	0.1	0.1	1	5	ppm	
1634	Palladium	7440-05-3	10	30	50	250	mg/m3	
1635	Palladium chloride	7647-10-1	0.15	0.4	3	500	mg/m3	
1636	Palladium hydroxide	12135-22-7	0.125	0.3	2.5	75	mg/m3	SAR
1637	Paraffin, n-	8002-74-2	2	6	10	500	mg/m3	
1638	Paraffins, petroleum, normal C5-C20	64771-72-8	300	300	300	300	ppm	
1639	Paraformaldehyde	30525-89-4	4	12.5	75	100	mg/m3	
1640	Paraldehyde	123-63-7	10	30	50	500	mg/m3	
1641	Paraquat	4685-14-7	0.15	0.15	0.15	150	mg/m3	
1642	Paraquat dichloride	1910-42-5	0.1	0.3	1	1	mg/m3	Synonym deleted
1643	Paraquat methosulfate; (Paraquat dimethyl sulphate)	2074-50-2	0.75	2	15	40	mg/m3	
1644	Parathion	56-38-2	0.1	0.3	2	10	mg/m3	
1645	Paris Green; (Cupric acetoarsenite)	12002-03-8	1	3.5	22	22	mg/m3	
1646	Particulate material (PNOS)	z-0037	10	30	50	250	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1647	PBX (mixture of HMX and nitrocellulose)	z-0038	0.24	0.6	5	500	mg/m3	Assumed 25% HMX & 75% CTN mixture. LANL CASRN = 121-82-4 Various (see Cyclotol)
1648	Pentaborane	19624-22-7	0.005	0.015	0.31	1	ppm	
1649	Pentachlorobenzene	608-93-5	10	30	50	400	mg/m3	
1650	Pentachlorobenzo-p-dioxin, 1,2,3,7,8-	40321-76-4	0.00075	0.0025	0.015	0.075	mg/m3	
1651	Pentachlorodibenzofuran, 1,2,3,7,8-	57117-41-6	0.0025	0.0075	0.06	0.3	mg/m3	
1652	Pentachlorodibenzofuran, 2,3,4,7,8-	57117-31-4	2.5E-05	7.5E-05	0.0006	0.4	mg/m3	
1653	Pentachloroethane	76-01-7	10	30	500	500	mg/m3	
1654	Pentachloronitrobenzene	82-68-8	0.5	1.5	250	500	mg/m3	
1655	Pentachlorophenol	87-86-5	0.5	1.5	2.5	2.5	mg/m3	
1656	Pentadecane	629-62-9	3.5	10	60	350	ppm	
1657	Pentadecanoic acid	1002-84-2	0.04	0.125	1	5	ppm	
1658	Pentadecylamine	2570-26-5	0.1	0.3	2	100	mg/m3	
1659	Pentaerythritol	115-77-5	15	30	50	500	mg/m3	
1660	Pentaerythritol tetranitrate	78-11-5	0.015	0.05	0.35	500	mg/m3	
1661	Pentane, n-	109-66-0	610	610	610	1500	ppm	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1662	Pentanedione, 2,4-; (Acetylacetone)	123-54-6	15	50	100	100	ppm	Added.
1663	Pentanenitrile	110-59-8	1.5	4	25	25	ppm	
1664	Pentanol, 2-; (sec-amyl alcohol, Methyl propyl carbinol, Isoamyl alcohol)	6032-29-7	100	125	125	500	ppm	Added. OSHA, ACGIH & NIOSH CASRN = 123-51-3 for isoamyl alcohol
1665	Pentanone, 2-	107-87-9	200	250	250	1500	ppm	
1666	Pentatriacontane	630-07-9	10	30	50	250	mg/m3	In H&N only
1667	Pentene, 1-	109-67-1	300	750	6000	30000	ppm	HSDB toxicity data used
1668	Pentobarbital sodium; (Nembutal sodium)	57-33-0	0.15	0.5	3.5	50	mg/m3	
1669	Peptone; (Hydrolized protein, Tryptones)	73049-73-7	10	30	50	250	mg/m3	Added. TSCA, H&N listed with Tryptones (LANL CASRN invalid), no toxicity data. MSDS not useful
1670	Perchloric acid	7601-90-3	1	3.5	20	100	ppm	
1671	Perchloroethylene; (Tetrachloroethylene)	127-18-4	25	100	200	1000	ppm	ERPG-1, -2, -3
1672	Perchloromethyl mercaptan	594-42-3	0.1	0.15	1.0	10	ppm	
1673	Perchloryl fluoride; (Chlorine oxyfluoride)	7616-94-6	3	6	15	100	ppm	
1674	Perfluoroisobutylene; (Octafluoro-sec-butene)	382-21-8	0.01	0.01	0.1	0.3	ppm	ERPG-2, -3
1675	Perfluoropolyether; (1,1,2,3,3,-hexafluoro-1-propene, oxidized; Vacuum pump oil)	69991-67-9	10	30	200	500	mg/m3	Added. TSCA listed, no toxicity data. LC50 estimated from Hexafluoropropene, MSDS states an irritant.

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1676	Periodic acid	10450-60-9	0.15	0.15	0.5	5	mg/m3	Added. TSCA listed, no toxicity data, used iodine values
1677	Perlite; (Fused NaKAl silicate, < 1% quartz)	93763-70-3	10	30	50	500	mg/m3	
1678	Permafluor E+	z-0039	100	150	500	500	mg/m3	Mixture ex MSDS
1679	Permafluor-V (85+% toluene)	z-0040	50	150	300	500	ppm	Mixture PPO, bis-MSB is 85-90% toluene, 10% methanol
1680	Peroxyacetic acid; (Peracetic acid)	79-21-0	2	6	15	15	ppm	
1681	Peroxydicarbonic acid, disodium salt	3313-92-6	7.5	25	150	500	mg/m3	
1682	Petroleum 50 thinner; (Paint thinner)	z-0041	7.5	25	150	750	ppm	
1683	Petroleum asphalt	8052-42-5	7.5	25	200	500	mg/m3	Last digit of CASRN changed to distinguish from Asphalt (ARO500), different toxicity. All Ts changed
1684	Petroleum distillate	8002-05-8	350	350	500	500	mg/m3	Last digit of CASRN changed to distinguish from Petroleum (PCR250), different toxicity
1685	Petroleum distillates, clay-treated light naphthenic	64742-45-6	20	60	400	500	mg/m3	Added.
1686	Petroleum mineral oil; (Extracts, petroleum, middle distillate solvent)	64742-06-9	10	30	500	500	mg/m3	Synonym added, original name retained
1687	Petroleum spirits; (VM & P Naphtha)	8032-32-4	300	300	395	395	ppm	
1688	Petroleum spirits; (Mineral spirits; Soltrol)	64475-85-0	20	60	400	2000	ppm	
1689	Petroleum; (Petroleum crude oil)	8002-05-9	500	500	500	500	mg/m3	Same CASRN as Petroleum distillate, PCS250, different toxicity
1690	Phenacetin; (p-acetophenetidide)	62-44-2	10	30	50	60	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1691	Phenaglycodol; (Ultrac; 2-p-chlorophenyl-3-methyl-2,3-butanediol)	79-93-6	10	30	50	350	mg/m3	
1692	Phenanthrene	85-01-8	0.4	1	7.5	300	mg/m3	
1693	Phenanthroline ferrous sulfate, 1,10-	14634-91-4	10	30	50	250	mg/m3	name changed
1694	Phenol	108-95-2	5	10	50	200	ppm	ERPG-1, -2, -3
1695	Phenolphthalein	77-09-8	0.75	2.5	15	400	mg/m3	
1696	Phenyl dichloroarsine; (Dichlorophenylarsine)	696-28-6	1.5	1.5	4	125	mg/m3	
1697	Phenyl ether; (Diphenyl ether)	101-84-8	1	2	5	100	ppm	Added.
1698	Phenyl-1,2-propanedione, 1-	579-07-7	2.5	7.5	50	250	mg/m3	
1699	Phenylazo)aniline, p-(	60-09-3	0.6	2	12.5	75	mg/m3	
1700	Phenylboric Acid; (Benzeneboronic acid)	98-80-6	3	7.5	60	300	mg/m3	
1701	Phenylene diisocyanate, 1,4-	104-49-4	3.5	10	35	35	mg/m3	
1702	Phenylenediamine dihydrochloride, 1,2-	615-28-1	10	30	125	125	mg/m3	
1703	Phenylenediamine dihydrochloride, 1,4-	624-18-0	0.6	1.5	12.5	60	mg/m3	
1704	Phenylenediamine, 1,2-; (o-Phenylenediamine)	95-54-5	0.1	0.3	50	500	mg/m3	
1705	Phenylenediamine, 1,3-; (m-Phenylenediamine)	108-45-2	0.1	0.3	5	125	mg/m3	
1706	Phenylenediamine, p-	106-50-3	0.1	0.3	0.5	25	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1707	Phenylhydrazine	100-63-0	0.1	0.3	0.5	15	ppm	PEL-TWA REL-C ignored
1708	Phenylhydrazine hydrochloride	59-88-1	50	150	250	250	mg/m3	
1709	Phenylmercury acetate; (Acetoxypheylmercury)	62-38-4	0.1	0.1	10	10	mg/m3	synonym changed
1710	Phenylphenol, 2-	90-43-7	25	75	500	500	mg/m3	
1711	Phenylphosphine	638-21-1	0.05	0.05	0.05	15	ppm	
1712	Phenylpropanol, 2-; (Dimethylphenylmethanol)	617-94-7	1	3	20	100	ppm	SAR Ts = 4, 12.5, 100, 200 mg/m3 not used
1713	Phenylsilatrane	2097-19-0	0.2	0.6	1	1	mg/m3	
1714	Phenylthiourea; (1-phenyl-2-thiourea)	103-85-5	3	3	3	3	mg/m3	
1715	Phenylxylethane; (PXE)	6196-95-8	10	30	50	250	mg/m3	
1716	Phorate	298-02-2	0.05	0.1	0.6	0.6	mg/m3	
1717	Phosacetim	4104-14-7	0.75	2	3.7	3.7	mg/m3	
1718	Phosfolan	947-02-4	1.5	5	9	9	mg/m3	
1719	Phosgene	75-44-5	0.1	0.1	0.2	1	ppm	ERPG-2, -3
1720	Phosmet	732-11-6	0.025	0.075	0.54	40	mg/m3	
1721	Phosphamidon; (Famfos)	13171-21-6	0.06	0.15	0.3	60	mg/m3	
1722	Phosphine	7803-51-2	0.3	0.5	0.5	5	ppm	ERPG-2, -3

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1723	Phosphonic acid, dioctadecyl ester	19047-85-9	0.02	0.06	0.4	2	mg/m3	SAR
1724	Phosphonic acid, tridodecyl ester	3076-63-9	12.5	40	250	500	mg/m3	Rat oral LD > 3160 mg/kg
1725	Phosphoric acid	7664-38-2	1	3	5	500	mg/m3	
1726	Phosphoric acid dimethyl-p-(methylthio)phenyl ester	3254-63-5	1.25	4	7	7	mg/m3	
1727	Phosphorous pentafluoride	7647-19-0	3	3	15	75	ppm	
1728	Phosphorous trifluoride	7783-55-3	4	4	20	150	ppm	
1729	Phosphorus (red)	7723-14-0	0.1	0.3	0.5	4	mg/m3	
1730	Phosphorus (yellow)	7723-14-1	0.1	0.3	3	5	mg/m3	Last digit of CASRN changed to distinguish from "Phosphorus (red)"
1731	Phosphorus oxychloride	10025-87-3	0.1	0.5	0.5	3	ppm	
1732	Phosphorus pentachloride	10026-13-8	1	2	4.25	70	mg/m3	
1733	Phosphorus pentasulfide	1314-80-3	1	3	5	250	mg/m3	
1734	Phosphorus pentoxide	1314-56-3	1	1	10	50	mg/m3	ERPG-1, -2, -3
1735	Phosphorus trichloride	7719-12-2	0.5	0.5	3	15	ppm	New ERPG-1, -2, -3
1736	Phosphorus trioxide	1314-24-5	0.4	1.25	7.5	40	mg/m3	Not in RTECS, etc. no toxicity data. LC50 based on SAX HR
1737	Phthalic acid	88-99-3	0.03	0.1	0.6	500	mg/m3	
1738	Phthalic anhydride	85-44-9	12	12	30	60	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1739	Physostigmine	57-47-6	0.75	2.5	4.5	4.5	mg/m3	
1740	Physostigmine salicylate(1:1)	57-64-7	0.5	1.5	2.5	2.5	mg/m3	
1741	Picric acid	88-89-1	0.1	0.3	0.5	75	mg/m3	
1742	Picrotoxin	124-87-8	3	7.5	15	15	mg/m3	
1743	Pigment green 36	14302-13-7	15	50	350	500	mg/m3	
1744	Pigment yellow 13; (Butanamide, 2,2'-((3,3'-dichloro(1,1'-biphenyl)-4,4'-diyl)bis(azo)bis(N-(2,4-dimethylphenyl)-3-oxo-	5102-83-0	75	250	500	500	mg/m3	Spelling of synonym corrected
1745	Pigment yellow 14	5468-75-7	20	60	400	500	mg/m3	
1746	Pigment yellow 36; (Zinc chromate)	13530-65-9	0.035	0.1	3.5	50	mg/m3	
1747	Pinacolone; (3,3-Dimethyl-2-butanone)	75-97-8	1.5	5	200	1000	ppm	Added.
1748	Pinacolyl alcohol; ((tert-Butyl methyl carbinol)	464-07-3	250	750	750	750	ppm	Added.
1749	Piperazine	110-85-0	2	6	40	500	mg/m3	
1750	Piperidine	110-89-4	0.3	0.75	6.32	250	ppm	
1751	Pirimifos-ethyl	23505-41-1	5	15	25	60	mg/m3	
1752	Platinum	7440-06-4	1	3	4	4	mg/m3	
1753	Platinum cyanide	592-06-3	0.0025	0.0075	0.0125	5	mg/m3	Added.

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1754	Poly alpha olefin; (Synthetic hydrocarbon mixture, PAO)	68649-12-7	5	10	25	250	mg/m3	
1755	Poly(1-(2-oxo-1-pyrrolidinyl)ethylene)iodine complex; (Tordine solutions)	25655-41-8	12.5	25	25	125	mg/m3	Name changed. MSDS mixture components used
1756	Poly(1-vinyl-2-pyrrolidinone) homopolymer; (Polyvinylprolidone; Plasdone)	9003-39-8	100	300	500	500	mg/m3	Added. SAX has 8, RTECS 9 listings for this CASRN
1757	Polyamide 6; (Capron; Poly(iminocarbonylpentamethylene))	25038-54-4	10	30	200	500	mg/m3	MW = 111 x n
1758	Polybutyl acrylate	9003-49-0	10	30	50	250	mg/m3	Added. TSCA listed, no toxicity data
1759	Polychlorinated biphenyl (Aroclor 1016); (Chlorodiphenyl (41% Cl))	12674-11-2	0.2	0.6	1	5	mg/m3	
1760	Polychlorinated biphenyl (Aroclor 1016/1242); (Chlorodiphenyl (37% Cl))	z-0042	0.2	0.6	1	5	mg/m3	
1761	Polychlorinated biphenyl (Aroclor 1221); (Chlorodiphenyl (21% Cl))	11104-28-2	0.2	0.6	1	5	mg/m3	
1762	Polychlorinated biphenyl (Aroclor 1232); (Chlorodiphenyl (32% Cl))	11141-16-5	0.2	0.6	1	5	mg/m3	
1763	Polychlorinated biphenyl (Aroclor 1242); (Chlorodiphenyl (42% Cl))	53469-21-9	1	3	5	5	mg/m3	
1764	Polychlorinated biphenyl (Aroclor 1248); (Chlorodiphenyl (48% Cl))	12672-29-6	0.2	0.6	1	5	mg/m3	
1765	Polychlorinated biphenyl (Aroclor 1254); (Chlorodiphenyl (54% Cl))	11097-69-1	0.5	1.5	2.5	5	mg/m3	
1766	Polychlorinated biphenyl (Aroclor 1260); (Chlorodiphenyl (60% Cl))	11096-82-5	0.3	0.75	5	5	mg/m3	
1767	Polychlorinated biphenyl (Aroclor 1260/1262); (Chlorodiphenyl (61% Cl?))	z-0043	0.2	0.6	1.5	5	mg/m3	Used Aroclor 60% Cl. LANL CASRN not used since it is for 60% Cl
1768	Polychlorinated biphenyl (Aroclor 1262); (Chlorodiphenyl (62% Cl))	37324-23-5	1	3	5	5	mg/m3	
1769	Polychlorinated biphenyl (Aroclor 1268); (Chlorodiphenyl (68% Cl))	11100-14-4	0.2	0.6	1	5	mg/m3	Used IDLH for other aroclors

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1770	Polychlorinated biphenyl; (Aroclor; PCBs)	1336-36-3	1	3	5	5	mg/m3	MW range = 292-361
1771	Polydimethyl siloxane: (Dimethylpolysiloxane)	9016-00-6	7.5	25	150	500	mg/m3	Added. Rat ip LD50 > 2 g/kg
1772	Polyethylene	9002-88-4	10	30	50	500	mg/m3	
1773	Polyethylene glycol	25322-68-3	10	30	50	500	mg/m3	
1774	Polyethylene glycol 20M	37225-26-6	10	30	50	500	mg/m3	Added. TSCA listed, no toxicity data, CASRN 37225-26-6, SAX PJT000 data used.
1775	Polyglycol 15-200: (Calthane NF and ND "B")	9082-00-2	40	125	500	500	mg/m3	Added. Rat oral LD50 > 10 g/kg
1776	Polymethacrylate; (Lucite)	9011-14-7	5	15	100	500	mg/m3	Added.
1777	Polyoxyalkyleneamine; (Poly(oxypropylene)diamine)	9046-10-0	10	30	50	100	mg/m3	
1778	Polyoxyethylene (20) sorbitan monolaurate; (	9005-64-5	10	35	250	500	mg/m3	Added. Sorbate 20, SAX No. PKL000 same CASRN, less toxic.
1779	Polyoxyethylene monoocetylphenyl ether	9036-19-5	15	50	350	500	mg/m3	
1780	Polyphosphoric acid	8017-16-1	1.5	5	40	200	mg/m3	Added. HSDB and TSCA listed, no toxicity data, based Ts on MSDS data
1781	Polypropylene	9003-07-0	12.5	40	250	500	mg/m3	Added. SAX PKI250 has same CASRN for "combustion products", tox. data not used
1782	Polypropylene glycols	25322-69-4	10	10	40	75	mg/m3	
1783	Polypropylene-polyethylene glycol; (Pluronic L-81)	9003-11-6	10	30	200	500	mg/m3	
1784	Polystyrene resin; (Styrene polymer)	9003-53-6	10	30	50	250	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1785	Polyurethane foam; (Urethane polymers)	9009-54-5	0.2	0.6	5	25	mg/m3	
1786	Polyvinyl alcohol	9002-89-5	40	125	500	500	mg/m3	Added.
1787	Polyvinyl chloride	9002-86-2	6	18	300	500	mg/m3	
1788	Potassium	7440-09-7	2	2	2	10	mg/m3	KOH limits used, and NaOH IDLH
1789	Potassium acetate	127-08-2	12.5	40	250	500	mg/m3	
1790	Potassium aluminate	12003-63-3	7.5	20	35	150	mg/m3	Used TSCA CASRN & MF, no toxicity data found
1791	Potassium aluminite	z-0044	2.5	7.5	12.5	500	mg/m3	SAR
1792	Potassium aluminosilicate	1327-44-2	5	30	50	500	mg/m3	SAR
1793	Potassium antimonate	29638-69-5	2	6	10	200	mg/m3	Used TSCA CASRN & MF. No toxicity data
1794	Potassium antimonate; (Potassium hexahydroxyantimonate)	12208-13-8	1	3	5	100	mg/m3	Used H&N MW & MF for this CASRN. KSbO3 not found
1795	Potassium antimonite	z-0045	0.75	2.5	4	75	mg/m3	
1796	Potassium argentate	z-0046	0.015	0.05	0.075	15	mg/m3	
1797	Potassium arsenate; (Monopotassium arsenate)	7784-41-0	0.025	0.075	0.125	12.5	mg/m3	MW and MF differ by one H in RTECS, HSDB, etc.
1798	Potassium arsenite	10124-50-2	0.05	0.15	0.25	25	mg/m3	Used RTECS, HSDB, H&N, TSCA CASRN, MW, MF
1799	Potassium arsenite; (Arsenous acid, potassium salt)	13464-35-2	0.02	0.06	1	10	mg/m3	Used RTECS, HC&P CASRN MW, MF. All Ts changed
1800	Potassium beryllium oxide	z-0047	0.015	0.075	0.075	30	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1801	Potassium bicarbonate	298-14-6	12.5	35	60	500	mg/m3	TSCA MF = C-H2-O3.K; both H&N and HC&P same as SAX; no toxicity data found. SAR
1802	Potassium bismuthate	12589-75-2	1.25	4	25	200	mg/m3	RTECS CASRN, with mw = 296.08, MF = Bi O3.K., lists both LD50 & Tdlo. SAR
1803	Potassium bisulfate	7646-93-7	10	30	200	500	mg/m3	
1804	Potassium bromate	7758-01-2	2	6	40	125	mg/m3	
1805	Potassium bromide	7758-02-3	12.5	40	250	500	mg/m3	
1806	Potassium cadminate	z-0048	0.01	0.06	0.1	20	mg/m3	MF based on MW
1807	Potassium carbonate	584-08-7	10	20	50	500	mg/m3	
1808	Potassium chlorate	3811-04-9	12.5	40	300	350	mg/m3	
1809	Potassium chloride	7447-40-7	1.5	5	15	15	mg/m3	
1810	Potassium chromate(VI)	7789-00-6	0.15	0.35	3.5	50	mg/m3	
1811	Potassium citrate	866-84-2	1.25	4	30	150	mg/m3	
1812	Potassium columbate; (Potassium niobate)	12030-85-2	12.5	35	250	500	mg/m3	
1813	Potassium cyanide	151-50-8	5	5	5	60	mg/m3	
1814	Potassium dichromate	7778-50-9	0.125	0.25	2.5	40	mg/m3	
1815	Potassium dideuterium phosphate; (DPD free chlorine reagent)	13761-79-0	0.0015	0.004	0.0075	0.2	mg/m3	CASRN ex LANL, MF ex TSCA

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1816	Potassium ferricyanide	13746-66-2	6	15	30	500	mg/m3	
1817	Potassium ferrocyanide trihydrate; (Tetrapotassium hexacyanoferrate)	13943-58-3	10	35	60	60	mg/m3	Added.
1818	Potassium fluoride	7789-23-3	7.5	20	40	500	mg/m3	
1819	Potassium formate	590-29-4	20	60	500	500	mg/m3	
1820	Potassium glycolate	1932-50-9	7.5	20	150	750	ppm	SAR
1821	Potassium hexacyanoferrate(II); (Potassiumate)ferrocyanide trihydr	14459-95-1	12.5	40	60	60	mg/m3	Added.
1822	Potassium hydrogen lead oxide	z-0049	0.06	0.06	0.06	125	mg/m3	SAR
1823	Potassium hydrogen pyrophosphate	z-0050	4	12.5	20	400	mg/m3	SAR
1824	Potassium hydrogen silicate	z-0051	10	30	50	250	mg/m3	
1825	Potassium hydroxide	1310-58-3	2	2	2	150	mg/m3	
1826	Potassium iminodiacetate; (Potassium IDA)	z-0052	4	12.5	100	500	ppm	Disodium iminodiacetate is CASRN 928-72-3, MW = 177.08. MW does not match MF. SAR
1827	Potassium iodate	7758-05-6	20	60	60	60	mg/m3	
1828	Potassium iodide	7681-11-0	0.25	0.75	6	300	mg/m3	
1829	Potassium lanthanate	z-0053	0.4	1.25	2.5	2.5	mg/m3	SAR
1830	Potassium metaborate	13709-94-9	12.5	35	250	500	mg/m3	CASRN ex LANL added, TSCA MF, MW used. SAR

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1831	Potassium molybdate	13446-49-6	12.5	35	60	500	mg/m3	
1832	Potassium nickel oxide (liquids)	z-0054	0.75	0.75	1.5	30	mg/m3	
1833	Potassium nickelate (liquids)	z-0055	1	1	1.5	35	mg/m3	
1834	Potassium nickelate (solids)	z-0056	2	2	3.5	35	mg/m3	
1835	Potassium nitrate	7757-79-1	1	3.5	20	500	mg/m3	SAX MW incorrect
1836	Potassium nitrilotriacetate; (Potassium NTA)	2399-85-1	5	15	100	500	mg/m3	
1837	Potassium nitrite	7758-09-0	0.04	0.1	0.75	500	mg/m3	
1838	Potassium orthovanadate	14293-78-8	0.06	0.2	0.6	40	mg/m3	
1839	Potassium oxalate	583-52-8	7.5	25	150	500	mg/m3	
1840	Potassium oxalate monohydrate	6487-48-5	7.5	25	150	500	mg/m3	Added. HC&P listed, no toxicity data. Used K oxalate, CASRN 583-52-8
1841	Potassium perchlorate	7778-74-7	125	400	500	500	mg/m3	Added.
1842	Potassium permanganate	7722-64-7	0.6	7.5	15	125	mg/m3	
1843	Potassium persulfate; (Dipotassium persulfate)	7727-21-1	0.1	0.3	0.5	350	mg/m3	
1844	Potassium pertechnetate	14133-76-7	10	30	50	250	mg/m3	Listed in OHMTADS, naturally radioactive, T1/2 22000 years, radiation dose will dominate
1845	Potassium phosphate dibasic trihydrate	16788-57-1	300	500	500	500	mg/m3	Added. Not found, but K phosphate dibasic, CASRN = 7758-11-4, SAX PLQ400 toxicity used

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1846	Potassium phosphate, dibasic	7758-11-4	10	30	50	250	mg/m3	
1847	Potassium phosphate, monobasic	7778-77-0	10	30	50	500	mg/m3	
1848	Potassium phosphate, tribasic	7778-53-2	10	30	50	500	mg/m3	
1849	Potassium pyrophosphate; (Tetrapotassium diphosphate)	7320-34-5	10	30	500	500	mg/m3	
1850	Potassium pyrosulfate; (Disulfuric acid, dipotassium salt)	7790-62-7	10	30	50	250	mg/m3	
1851	Potassium selenate	7790-59-2	0.5	1.5	2.5	2.5	mg/m3	
1852	Potassium selenite	10431-47-7	0.5	0.5	0.5	2.5	mg/m3	TSCA MF = 2K.H2SeO3
1853	Potassium silver cyanide	506-61-6	1	3	20	20	mg/m3	
1854	Potassium stannate	12142-33-5	2.5	7.5	12.5	125	mg/m3	SAR Potassium stannate trihydrate has CASRN = 12125-03-0 mu iv LD50, and Sn cmpnd limits, Ts are 4, 12.5, 20, 150
1855	Potassium strontium phosphate	z-0057	10	30	50	500	mg/m3	SAR
1856	Potassium sulfate (2:1); (Dipotassium sulfate)	7778-80-5	2	6	40	500	mg/m3	
1857	Potassium sulfite	10117-38-1	10	30	50	250	mg/m3	
1858	Potassium tellurate	15571-91-2	0.2	0.6	1	5	mg/m3	TSCA MF = 2K-Te-H2-O4
1859	Potassium tellurite	7790-58-1	0.2	0.6	1	15	mg/m3	
1860	Potassium tetraphenylborate	3244-41-5	1	3	5	25	mg/m3	Data from MSDS

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1861	Potassium thiocyanate	333-20-0	10	35	60	60	mg/m3	
1862	Potassium trihydrogen silicate	z-0058	10	30	50	250	mg/m3	
1863	Potassium tungstate (liquids)	7790-60-5	1.5	5	5	5	mg/m3	
1864	Potassium tungstate (solids)	7790-60-6	1.5	5	5	5	mg/m3	Last digit of CASRN changed for sorting
1865	Potassium uranyl carbonate	z-0059	0.4	1	1.75	15	mg/m3	
1866	Potassium zirconate	12030-98-7	12.5	25	25	125	mg/m3	
1867	Potassium-tert-butoxide; (tert-Butyl alcohol, potassium derivitave)	865-47-4	1.5	5	35	150	mg/m3	Added. LD50 estimated, databases MF differ MSDS not useful
1868	Praseodymium nitrate	10361-80-5	7.5	20	150	500	mg/m3	
1869	Praseodymium oxide	12036-32-7	7.5	25	150	500	mg/m3	In HC&P, TSCA, no toxicity data, rat oral LD50 estimated from other Pr compounds
1870	Promecarb; (m-Cym-5-yl methylcarbamate)	2631-37-0	3	10	16	25	mg/m3	
1871	Propanamine, 1-; (Propylamine)	107-10-8	15	50	250	250	ppm	
1872	Propane	74-98-6	1000	2100	2100	2100	ppm	
1873	Propane sultone, 1,3-	1120-71-4	0.4	1.25	7.5	20	mg/m3	
1874	Propanediamine, 1,2-	78-90-0	7.5	25	200	500	mg/m3	
1875	Propanediamine, 1,3-	109-76-2	0.2	0.6	4	40	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1876	Propanedinitrile; (Malononitrile)	109-77-3	8	8	8	25	mg/m3	
1877	Propargyl alcohol	107-19-7	1	1.5	5	60	ppm	
1878	Propargyl bromide	106-96-7	0.03	0.03	0.03	20	mg/m3	
1879	Propiolactone, b-	57-57-8	0.5	0.5	5	15	ppm	
1880	Propionaldehyde	123-38-6	30	75	500	500	mg/m3	
1881	Propionic acid	79-09-4	10	10	15	350	ppm	
1882	Propionic acid, 3-ethoxy-, ethyl ester	763-69-9	20	60	400	500	mg/m3	
1883	Propionic anhydride	123-62-6	10	30	200	500	mg/m3	
1884	Propionitrile; (Propiononitrile)	107-12-0	6	15	15	15	ppm	
1885	Propionyl chloride	79-03-8	0.075	0.2	1.5	7.5	ppm	
1886	Propoxur	114-26-1	0.5	1.5	20	20	mg/m3	
1887	Propyl alcohol, n-	71-23-8	200	250	250	800	ppm	
1888	Propyl chloroformate; (Propyl chlorocarbonate)	109-61-5	0.4	1.25	2	60	ppm	
1889	Propyl nitrate	627-13-4	25	40	125	1164	ppm	T-3 changed
1890	Propyl-1-butanamine, N-	20193-21-9	15	50	350	500	mg/m3	SAR
1891	Propylbenzene, N- (Isocumene)	103-65-1	30	75	600	3000	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1892	Propylene carbonate, 1,2-	108-32-7	0.125	0.35	2.5	12.5	mg/m3	
1893	Propylene glycol dinitrate	6423-43-4	0.05	0.05	0.1	15	ppm	Propylene glycol dinitrate is one component of "Otto fuel"
1894	Propylene glycol monomethyl ether acetate; (1-Methoxypropyl-2-acetate)	108-65-6	50	150	250	600	ppm	Added.
1895	Propylene glycol monomethyl ether; (UCAR TRIOL HG-170)	107-98-2	100	150	300	750	ppm	
1896	Propylene glycol mono-n-butyl ether; (3-butoxy-1-propanol)	10215-33-5	10	10	10	10	ppm	
1897	Propylene glycol; (1,2-Propanediol)	57-55-6	50	50	75	750	ppm	
1898	Propylene oxide; (Methyl ethylene oxide)	75-56-9	50	50	250	750	ppm	ERPG-1, -2, -3
1899	Propylene; (1-Propene)	115-07-1	24000	24000	24000	24000	ppm	
1900	Propyleneimine, 1,2-	75-55-8	2	6	51.4	100	ppm	
1901	Prothoate; (Isopropyl diethyldithiophosphorylacetamide)	2275-18-5	0.35	1	1.7	7.5	mg/m3	
1902	Pump oil	64742-65-0	100	300	500	500	mg/m3	Added.
1903	Pyrene	129-00-0	15	15	15	15	mg/m3	
1904	Pyridine	110-86-1	5	15	25	1000	ppm	
1905	Pyriminil; (Pyriminyl)	53558-25-1	1.25	3.5	6.2	20	mg/m3	
1906	Pyromellitic acid	89-05-4	1.25	3.5	25	125	mg/m3	
1907	Pyroxylin; (Cellulose tetranitrate)	9004-70-0	10	30	50	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1908	Pyrrolidine	123-75-1	5	15	100	500	mg/m3	
1909	Pyrrolidinone, 2-	616-45-5	1	3	20	40	ppm	
1910	Pyruvate kinase	9001-59-6	2.5	7.5	50	500	mg/m3	Added. TSCA listed, no data. Glycolytic enzyme toxicity based on Kinase (9039-53-6) and Pyruvic acid (127-17-3)
1911	Quaternary ammonium compounds, benzyl-C12-C16-alkyldimethyl, chlorides	68424-85-1	1.5	5	35	150	mg/m3	Added.
1912	Quinhydrone	106-34-3	0.3	0.75	6	30	mg/m3	
1913	Quinoline	91-22-5	0.2	0.6	5	25	ppm	
1914	Quinololinol, 8-	148-24-3	3.5	10	60	500	mg/m3	
1915	Resorcinol	108-46-3	10	20	20	20	ppm	
1916	Rhenium oxide; (Rhenium(VII) oxide)	1314-68-7	1.25	4	6	30	mg/m3	Soluble W limits used
1917	Rhodium	7440-16-6	0.1	3	5	100	mg/m3	
1918	Rhodium oxide (liquids); (Rhodium(IV) oxide)	12137-27-8	0.00125	0.0375	0.0625	2.5	mg/m3	Liquid treated as soluble
1919	Rhodium oxide (solids); (Rhodium(IV) oxide)	12137-27-9	0.125	4	6.00	125	mg/m3	Last digit of CASRN changed for sorting, solids treated as insoluble
1920	Rhodium(III) hydroxide (liquids)	21656-02-0	0.0015	0.045	0.075	3	mg/m3	Liquid treated as soluble
1921	Rhodium(III) hydroxide (solids)	21656-02-1	0.15	4	7.5	150	mg/m3	Last digit of CASRN changed for sorting, solids treated as insoluble
1922	Rhodium(III) oxide (solids)	12036-35-0	0.125	3.5	6	125	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1923	Ribonuclease T1	9026-12-4	10	30	50	250	mg/m3	Added. RTECS listed, no toxicity data. PNOS option used.
1924	Ricin	9009-86-3	0.025	0.075	0.5	1.5	mg/m3	
1925	Rosin core solder decomposition products; (Colophony Gum)	8050-09-7	0.1	0.3	40	40	mg/m3	Added.
1926	Rotenone	83-79-4	5	5	7.5	500	mg/m3	
1927	Rubber solvent; (Naphtha (petroleum) light aliphatic)	64742-89-8	100	100	200	1000	ppm	Name changed, CASRN = 8030-30-6 in SAX & HSDB
1928	Rubidium	7440-17-7	5	15	100	500	mg/m3	Added.
1929	Rubidium bromide	7789-39-1	10	30	50	250	mg/m3	
1930	Rubidium chloride	7791-11-9	0.015	0.05	0.35	500	mg/m3	
1931	Rubidium hydroxide	1310-82-3	2.5	7.5	50	250	mg/m3	
1932	Rubidium nitrate	13126-12-0	10	30	50	500	mg/m3	
1933	Ruthenium	7440-18-8	10	30	50	250	mg/m3	
1934	Ruthenium trichloride	10049-08-8	1.5	4	30	150	mg/m3	
1935	Ruthenium(IV) oxide	12036-10-1	4	12.5	15	15	mg/m3	
1936	Safrol; (5-(2-Propenyl)-1,3-benzodioxole)	94-59-7	5	15	100	500	mg/m3	
1937	Salcomine; (bis(Salicylaldehyde)ethylenediimine cobalt(II))	14167-18-1	7.5	20	40	400	mg/m3	
1938	Salicylic acid	69-72-7	0.3	0.75	6	400	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1939	Samarium nitrate	10361-83-8	7.5	25	150	500	mg/m3	
1940	Samarium(III) oxide	12060-58-1	20	60	400	500	mg/m3	Rat oral LD50 > 5 g/kg
1941	Scandium oxide	12060-08-1	10	30	50	250	mg/m3	HC&P and TSCA listed, no toxicity data, PNOS used
1942	Selenious acid	7783-00-8	0.3	1	1.5	1.5	mg/m3	
1943	Selenium	7782-49-2	0.2	0.6	1	1	mg/m3	
1944	Selenium dioxide	7446-08-4	0.25	0.75	1.25	1.3	mg/m3	
1945	Selenium hexafluoride	7783-79-1	0.125	0.35	0.6	5	ppm	
1946	Selenium monosulfide	7446-34-6	0.25	0.75	12.5	15	mg/m3	
1947	Selenium oxychloride	7791-23-3	0.4	1.25	4	4	mg/m3	
1948	Selenium sulfide; (Selenium(IV) disulfide (1:2))	7488-56-4	0.35	1	1.5	60	mg/m3	
1949	Semicarbazide hydrochloride	563-41-7	20	60	100	100	mg/m3	
1950	Sephadex gel filter 20-801	9041-35-4	10	30	50	250	mg/m3	Added. Not found in databases, PNOS option used
1951	Silane	7803-62-5	5	15	25	4000	ppm	
1952	Silica gel	63231-67-4	10	30	50	250	mg/m3	Added. PEL = 80% SiO2 not used; see 7631-86-9, SCI000, and 112926-00-8 (Silica gel)
1953	Silica gel dessicant	1343-98-2	6	30	500	500	mg/m3	Added. See 7631-86-9, SCI000, and 112926-00-8 (Silica gel)

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1954	Silica gel, amorphous synthetic	112926-00-8	10	30	50	250	mg/m3	Added.
1955	Silica, amorphous fume	69012-64-2	2	6	10	50	mg/m3	
1956	Silica, amorphous fumed	112945-52-5	2	6	100	500	mg/m3	
1957	Silica, amorphous hydrated	7631-86-9	6	30	50	500	mg/m3	
1958	Silica, crystalline-quartz; (Silicon dioxide)	14808-60-7	0.15	0.15	0.25	50	mg/m3	
1959	Silicic acid	7699-41-4	10	10	50	400	mg/m3	
1960	Silicofluoric acid; (Fluorosilicic acid)	16961-83-4	3	7.5	15	50	mg/m3	
1961	Silicon	7440-21-3	15	30	50	500	mg/m3	
1962	Silicon carbide	409-21-2	15	30	50	250	mg/m3	
1963	Silicon tetrafluoride; (Tetrafluorosilane)	7783-61-1	0.75	2.25	3.75	100	ppm	
1964	Silicon(II) oxide; (Silicon oxide)	10097-28-6	10	30	50	250	mg/m3	
1965	Siloxanes and silicones, -dime-, reaction products with silica; (Hydrophobic silicon dioxide, amorphous)	67762-90-7	6	15	125	500	mg/m3	Added.
1966	Siloxanes and silicones; (Silicone fluid, high temp)	63148-58-3	10	10	50	250	mg/m3	Added. MW estimated and used toxicity data for Silicone Y-6607 (Siloxanes), 67762-92-9
1967	Silver	7440-22-4	0.01	0.3	0.5	10	mg/m3	
1968	Silver carbonate; (Silver(I) carbonate)	534-16-7	0.0125	0.04	0.06	12.5	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1969	Silver chloride	7783-90-6	10	30	50	500	mg/m3	
1970	Silver cyanide	506-64-9	25	25	25	125	mg/m3	
1971	Silver hydroxide	z-0060	0.01	0.035	0.06	10	mg/m3	
1972	Silver nitrate	7761-88-8	0.015	0.045	0.075	15	mg/m3	
1973	Silver nitrite; (Silver(I) nitrite)	7783-99-5	0.0125	0.04	0.06	12.5	mg/m3	
1974	Silver oxide	20667-12-3	10	30	50	50	mg/m3	
1975	Soda lime	8006-28-8	5	5	5	25	mg/m3	Added. Use CaO limits
1976	Sodium	7440-23-5	0.5	0.5	5	50	mg/m3	NaOH limits used
1977	Sodium acetate	127-09-3	15	40	300	500	mg/m3	
1978	Sodium acetate trihydrate; (Acetic acid, sodium salt trihydrate)	6131-90-4	15	40	300	500	mg/m3	Added. Monohydrate CASRN 31304-44-6, SAX SEG650 (LANL pchem data differs)
1979	Sodium aluminate	1302-42-7	2	6	10	50	mg/m3	
1980	Sodium aluminate; (Aluminum sodium oxide)	11138-49-1	2	6	10	500	mg/m3	
1981	Sodium aluminosilicate	1344-00-9	3.5	10	150	500	mg/m3	Rat oral LD50 > 27 g/kg, LC > 140 mg/m3 SAR
1982	Sodium aluminum silicate	73987-94-7	3.5	10	15	500	mg/m3	SAR
1983	Sodium antimonate; (Sodium hexahydroxoantimonate)	33908-66-6	0.75	2	4	75	mg/m3	TSCA has CASRN= 33908-66-6 for Na.Sb.(OH)6

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
1984	Sodium antimonate; (Antimonic acid, sodium salt)	11112-10-0	1	3	5	100	mg/m3	TSCA lists CASRN = 15432-85-6 for Na.SbO3
1985	Sodium antimonite	z-0061	0.75	2.5	4	75	mg/m3	
1986	Sodium argentate	z-0062	0.015	0.04	0.075	15	mg/m3	
1987	Sodium arsenate	7631-89-2	0.025	0.075	0.125	12.5	mg/m3	REL-C ignored
1988	Sodium arsenite	7784-46-5	0.015	0.045	0.075	7.5	mg/m3	REL-C ignored
1989	Sodium azide	26628-22-8	0.29	0.29	0.29	12.5	mg/m3	
1990	Sodium beryllium oxide	z-0063	0.0125	0.06	0.0625	25	mg/m3	
1991	Sodium bicarbonate	144-55-8	10	30	50	500	mg/m3	
1992	Sodium bifluoride; (Sodium hydrogen fluoride)	1333-83-1	4	4	6	35	mg/m3	
1993	Sodium bismuthate	12232-99-4	1.5	5	35	150	mg/m3	SAR TEELs 1.25, 4, 25, 200 mg/m3 not used
1994	Sodium bisulfate monohydrate	10034-88-5	0.75	2.5	15	75	mg/m3	Added.
1995	Sodium bisulfate; (Sodium acid sulfate)	7681-38-1	1.25	3.5	25	125	mg/m3	
1996	Sodium bisulfite	7631-90-5	5	15	25	500	mg/m3	
1997	Sodium borate decahydrate	1303-96-4	5	15	25	500	mg/m3	
1998	Sodium borohydride	16940-66-2	0.075	0.2	1.5	7.5	mg/m3	
1999	Sodium bromate	7789-38-0	0.6	1.5	12.5	60	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2000	Sodium bromide	7647-15-6	1.5	5	35	500	mg/m3	
2001	Sodium butyl (2-ethylhexyl)phosphate	z-0064	0.02	0.06	0.4	2	mg/m3	SAR
2002	Sodium butyl butylphosphonate	z-0065	0.02	0.06	0.4	2	mg/m3	SAR
2003	Sodium cacodylate; (Sodium dimethylarsinate)	124-65-2	1	3	40	500	mg/m3	
2004	Sodium cadminate	z-0066	0.01	0.06	0.1	15	mg/m3	
2005	Sodium carbonate	497-19-8	10	30	50	500	mg/m3	
2006	Sodium carbonate monohydrate	5968-11-6	1.5	5	35	150	mg/m3	HSDB data used.
2007	Sodium carboxymethyl cellulose; (Dowex 11)	9004-32-4	0.4	1.25	7.5	500	mg/m3	Added.
2008	Sodium chloride	7647-14-5	15	40	300	500	mg/m3	
2009	Sodium chlorite	7758-19-2	0.75	2.5	15	75	mg/m3	Added. RTECS MF and MW differ from other sources
2010	Sodium chromate decahydrate	13517-17-4	0.3	0.6	0.6	100	mg/m3	
2011	Sodium chromate tetrahydrate	10034-82-9	0.15	0.15	0.3	40	mg/m3	Added..
2012	Sodium chromate(VI); (Disodium chromate)	7775-11-3	0.15	0.3	0.3	40	mg/m3	
2013	Sodium citrate; (Monosodium citrate)	18996-35-5	10	30	50	500	mg/m3	
2014	Sodium cobaltinitrite	13600-98-1	0.125	0.4	3	15	mg/m3	
2015	Sodium cyanide	143-33-9	5	5	5	40	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2016	Sodium dichromate dihydrate	7789-12-0	0.15	0.3	0.3	40	mg/m3	
2017	Sodium dichromate; (Disodium dichromate)	10588-01-9	0.125	0.25	25	35	mg/m3	
2018	Sodium diethyldithiocarbamate; (Diethyldithiocarbamic acid, sodium salt)	148-18-5	2	6	100	500	mg/m3	
2019	Sodium dihydrogen phosphate; (Sodium phosphate monobasic, monohydrate)	10049-21-5	50	150	500	500	mg/m3	Added. HSDB data
2020	Sodium dithionate dihydrate	7631-94-9	10	30	50	250	mg/m3	Added. In H&P, no toxicity data; error in H&N
2021	Sodium dodecylbenzenesulfonate; (Dodecyl benzene sodium sulfonate)	25155-30-0	4	12.5	75	200	mg/m3	
2022	Sodium ferrocyanide	13601-19-9	5	15	25	500	mg/m3	
2023	Sodium fluoride	7681-49-4	5	5	5.00	75	mg/m3	
2024	Sodium formate	141-53-7	40	125	500	500	mg/m3	
2025	Sodium gluconate	527-07-1	0.6	2	15	75	mg/m3	
2026	Sodium glycinate	6000-44-8	1	3.5	25	125	ppm	
2027	Sodium glycolate; (Sodium hydroxyacetate)	2836-32-0	10	30	200	750	ppm	
2028	Sodium hydride	7646-69-7	10.00	10	10	10	mg/m3	
2029	Sodium hydrogen lead oxide	z-0067	0.06	0.06	0.06	125	mg/m3	SAR
2030	Sodium hydrogen metasilicate	z-0068	4	12.5	75	400	mg/m3	SAR
2031	Sodium hydrogen pyrophosphate	z-0069	4	12.5	20	400	mg/m3	SAR

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2032	Sodium hydrosulfite	7775-14-6	10	30	50	250	mg/m3	
2033	Sodium hydroxide	1310-73-2	0.5	0.5	5	50	mg/m3	ERPG-1, -2, -3
2034	Sodium hypochlorite	7681-52-9	25	75	500	500	mg/m3	
2035	Sodium hypochlorite pentahydrate	10022-70-5	0.075	0.2	1.5	500	mg/m3	
2036	Sodium hypophosphite hydrate	123333-67-5	6	20	125	500	mg/m3	Added. Used tox data for Na hypophosphite, CASRN = 7681-53-0
2037	Sodium iodate	7681-55-2	1.5	1.5	1.5	25	mg/m3	Treated as iodine compound
2038	Sodium iodide	7681-82-5	0.75	2.5	15	500	mg/m3	
2039	Sodium isothiocyanate	540-72-7	0.75	2	15	350	mg/m3	Added.
2040	Sodium lanthanate	z-0070	0.4	1.25	2.5	2.5	mg/m3	No "lanthanate" listing found SAR
2041	Sodium lauryl sulfate	151-21-3	0.35	1	6	500	mg/m3	
2042	Sodium metabisulfite	7681-57-4	5	15	25	100	mg/m3	
2043	Sodium metaborate	7775-19-1	6	15	30	500	mg/m3	SAX, RTECS, HSDB MF = BHO2.Na, not NaBO2
2044	Sodium metaphosphate	10361-03-2	3.5	10	75	350	mg/m3	
2045	Sodium metasilicate	z-0071	50	150	250	500	mg/m3	LANL CASRN not used because MF in SAX and RTECS different (see sodium silicate). HSDB, CHRIS and TSCA MF also differ
2046	Sodium metasilicate nonahydrate	13517-24-3	100	300	500	500	mg/m3	T-0, -1, -2 changed

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2047	Sodium metavanadate; (Sodium vanadate)	13718-26-8	0.1	0.35	2	30	mg/m3	
2048	Sodium methylate	124-41-4	7.5	25	150	500	mg/m3	
2049	Sodium molybdate dihydrate; (Disodium molybdate dihydrate)	10102-40-6	3.5	3.5	200	200	mg/m3	
2050	Sodium monoxide; (Sodium oxide)	12401-86-4	10	10	10	10	mg/m3	
2051	Sodium nickel oxide (liquid)	z-0072	0.6	0.6	1	20	mg/m3	
2052	Sodium nickelate (Liquids)	z-0073	0.75	0.75	1.5	30	mg/m3	
2053	Sodium nickelate (Solids)	z-0074	1.5	1.5	3	30	mg/m3	
2054	Sodium nitrate	7631-99-4	0.4	1	7.5	100	mg/m3	
2055	Sodium nitrite	7632-00-0	0.04	0.125	1	60	mg/m3	
2056	Sodium nitroferricyanide	14402-89-2	0.6	2	12.5	20	mg/m3	
2057	Sodium o-benzyl-p-chlorophenate	3184-65-4	10	30	50	250	mg/m3	
2058	Sodium orthovanadate	13721-39-6	0.15	0.15	15	35	mg/m3	
2059	Sodium oxalate	62-76-0	10	30	50	50	mg/m3	
2060	Sodium pentachlorophenate	131-52-2	1	3.5	25	75	mg/m3	
2061	Sodium perchlorate	7601-89-0	10	30	50	500	mg/m3	
2062	Sodium perchlorate monohydrate	7791-07-3	5	15	100	500	mg/m3	Added.

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2063	Sodium peroxide	1313-60-6	10	10	10	10	mg/m3	
2064	Sodium perrhenate; (Rhenium(VII) sodium oxide)	13472-33-8	10	30	50	500	mg/m3	
2065	Sodium persulfate	7775-27-1	0.1	0.3	0.5	100	mg/m3	Added.
2066	Sodium pertechnetate	13718-28-0	10	30	50	250	mg/m3	Radiation dose will dominate
2067	Sodium phosphate, dibasic	7558-79-4	60	200	500	500	mg/m3	
2068	Sodium phosphate	7632-05-5	0.75	2.5	15	75	mg/m3	Added. Mouse LD > 100 mg/kg
2069	Sodium phosphate decahydrate	13472-36-1	10	30	200	500	mg/m3	Added. Used toxicity of disodium pyrophosphate, CASRN = 7758-16-9
2070	Sodium phosphate, dibasic, dodecahydrate	10039-32-4	1.5	5	35	150	mg/m3	
2071	Sodium phosphate, dibasic, heptahydrate	7782-85-6	50	150	500	500	mg/m3	
2072	Sodium phosphate, monobasic	7558-80-7	35	100	500	500	mg/m3	
2073	Sodium phosphate, tribasic	7601-54-9	10	30	50	500	mg/m3	
2074	Sodium phosphate, tribasic, dodecahydrate	10101-89-0	10	30	50	500	mg/m3	
2075	Sodium phosphate, tribasic; (Sodium hexametaphosphate; Calgon)	10124-56-8	25	75	500	500	mg/m3	
2076	Sodium phosphate, tribasic; (Sodium trimetaphosphate)	7785-84-4	15	40	300	500	mg/m3	
2077	Sodium potassium tartrate tetrahydrate	6381-59-5	20	60	400	500	mg/m3	Added. HC&N listed under CASRN 304-59-6, used HSDB toxicity data
2078	Sodium potassium tartrate; (Potassium sodium tartrate)	304-59-6	20	60	400	500	mg/m3	Added. In HSDB and HC&P, no toxicity data

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2079	Sodium p-tert-amylphenate; (4-(1,1-dimethylpropyl)-phenol, sodium salt)	31366-95-7	10	30	50	250	mg/m3	
2080	Sodium pyrophosphate, di-	7758-16-9	10	30	50	500	mg/m3	
2081	Sodium salicylate; (Salicylic acid, sodium salt)	54-21-7	40	100	500	500	mg/m3	Added.
2082	Sodium selenate; (Disodium selenate)	13410-01-0	0.5	1.5	2	1.6	mg/m3	
2083	Sodium selenite	10102-18-8	0	1	2	3	mg/m3	
2084	Sodium silicate	1344-09-8	8	25	150	500	mg/m3	Added.
2085	Sodium silicate; (Sodium metasilicate)	6834-92-0	5	15	100	500	mg/m3	
2086	Sodium stannate	12058-66-1	4	10	15	150	mg/m3	As inorganic tin compound Ts = 3.5, 10.5, 30, 150 mg/m3. SAR not used.
2087	Sodium stearate	822-16-2	0	1	4	15	mg/m3	
2088	Sodium strontium phosphate	z-0075	10	30	50	500	mg/m3	SAR
2089	Sodium succinate	150-90-3	5	15	100	600	ppm	
2090	Sodium sulfate, anhydrous	7757-82-6	10	30	500	500	mg/m3	
2091	Sodium sulfhydrate; (Sodium hydrosulfide)	16721-80-5	0	0	1	6	mg/m3	
2092	Sodium sulfide	1313-82-2	0.8	2.5	15	75	mg/m3	
2093	Sodium sulfide nonahydrate	1313-84-4	0	1	4	20	mg/m3	Added.
2094	Sodium sulfite	7757-83-7	10	30	50	100	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2095	Sodium tellurate	10101-83-4	0.15	0.5	0.75	150	mg/m3	
2096	Sodium tellurite	10102-20-2	0.15	0.5	7.5	25	mg/m3	
2097	Sodium tetraborate, di-	1330-43-4	3	3	5	25	mg/m3	
2098	Sodium tetraphenyl borate	143-66-8	1.25	3.5	25	125	mg/m3	
2099	Sodium thiosulfate	7772-98-7	10	30	50	500	mg/m3	
2100	Sodium thiosulfate pentahydrate	10102-17-7	10	30	50	500	mg/m3	
2101	Sodium trihydrogen silicate	z-0076	10	30	50	250	mg/m3	
2102	Sodium tripolyphosphate	7758-29-4	10	30	50	500	mg/m3	
2103	Sodium tungstate	13472-45-2	1	3	5	500	mg/m3	
2104	Sodium tungstate dihydrate	10213-10-2	1.5	5	7.5	75	mg/m3	Added.
2105	Sodium uranate; (Sodium diuranate)	13721-34-1	0.075	0.75	1.5	15	mg/m3	
2106	Sodium uranium oxide	z-0077	0.06	0.75	1.25	12.5	mg/m3	
2107	Sodium uranyl carbonate	z-0078	0.4	0.75	1.5	15	mg/m3	
2108	Sodium zirconate; (Disodium zirconium oxide)	12201-48-8	10	20	20	100	mg/m3	Synonym added
2109	Sodium-Potassium	11135-81-2	0.5	0.5	5	50	mg/m3	ERPGs for NaOH used. MW for 78wt.% K and 22 wt.% Na
2110	Solvent naphtha, petroleum, medium aliphatic; (Mineral spirits, naphtha)	64742-88-7	10	30	50	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2111	Solvent Yellow 3	97-56-3	2	6	40	500	mg/m3	
2112	Soman; (3,3-Dimethyl-2-butanol methylphosphonofluoridate, GD)	96-64-0	0.00003	0.00009	0.0015	0.04	mg/m3	
2113	Sorbitol, d-; (d-Glucitol)	50-70-4	40	125	500	500	mg/m3	Added. pchem data vary among sources
2114	Squalene; (2,610,15.19,23-Hexamethyltetracosahexane)	111-02-4	20	60	400	500	mg/m3	
2115	Stannic chloride; (Tin(IV) chloride; Tin(IV) tetrachloride)	7646-78-8	4	4	7.5	200	mg/m3	
2116	Stannous chloride; (Tin(II) chloride (1:2))	7772-99-8	3	10	15	150	mg/m3	
2117	Starch dust; (Thyodene)	9005-25-8	15	30	50	500	mg/m3	Added.
2118	Stibine	7803-52-3	0.1	0.1	0.5	1.5	ppm	ERPG-2, -3.
2119	Stilbene 3; (Tinopal CBS, Disodium 4,4'-bis(2-sulfostyryl)biphenyl)	27344-41-8	0.25	0.75	6	500	mg/m3	
2120	Stilbene 420	588-59-0	10	30	50	500	mg/m3	
2121	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	8052-41-3	500	500	500	500	mg/m3	Changed name
2122	Strontium	7440-24-6	10	30	50	250	mg/m3	
2123	Strontium carbonate	1633-05-2	20	20	20	20	mg/m3	HSDB and TSCA MF = C-H2-O3-Sr, but HSDB MW =147.63 SAR
2124	Strontium chloride heptahydrate	10476-85-4	0.075	0.2	1.5	500	mg/m3	Added.
2125	Strontium hydroxide	18480-07-4	0.75	0.75	20	75	mg/m3	RTECS has some toxicity data. SAR
2126	Strontium nitrate	10042-76-9	10	30	50	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2127	Strontium nitrite; (Nitrous acid, strontium salt)	13470-06-9	0.04	0.1	0.75	75	mg/m3	CASRN added. SAR
2128	Strontium oxalate	814-95-9	7.5	25	60	75	mg/m3	TSCA MF = C2-H2-O4.Sr No toxicity data found SAR
2129	Strontium phosphate	14414-90-5	10	30	500	500	mg/m3	RTECS MF = H3-O4-P.xSr, gives MW = 448.48 for x = 4 SAR
2130	Strontium sulfate	7759-02-6	10	30	50	250	mg/m3	
2131	Strychnine	57-24-9	0.15	0.3	0.3	3	mg/m3	
2132	Strychnine sulfate (2:1)	60-41-3	1	3	5	30	mg/m3	
2133	Styrene	100-42-5	50	50	250	1000	ppm	ERPG-1, -2, -3
2134	Styrene oxide; (1,2-Epoxyethylbenzene)	96-09-3	4	12.5	50	50	ppm	
2135	Succinic acid	110-15-6	7.5	25	200	500	mg/m3	Added.
2136	Succinic anhydride	108-30-5	0.75	2	15	500	mg/m3	Added.
2137	Sucrose	57-50-1	15	30	50	500	mg/m3	Added.
2138	Sulfamic acid	5329-14-6	12.5	40	250	500	mg/m3	
2139	Sulfanilamide	63-74-1	1	3	20	500	mg/m3	Added.
2140	Sulfonic acids, petroleum; (Petrolatum acid sulfonate)	61789-85-3	10	30	50	250	mg/m3	Name changed
2141	Sulfosalicylic acid	97-05-2	10	30	200	500	mg/m3	
2142	Sulfotep; (TEDP)	3689-24-5	0.2	0.5	3.5	10	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2143	Sulfur	7704-34-9	0.125	0.4	2.5	12.5	mg/m3	
2144	Sulfur dioxide	7446-09-5	0.3	0.3	3	15	ppm	ERPG-1, -2, -3
2145	Sulfur hexafluoride	2551-62-4	1000	3000	5000	5000	ppm	
2146	Sulfur monochloride	10025-67-9	1	1	1	5	ppm	
2147	Sulfur pentafluoride	5714-22-7	0.01	0.01	0.01	1	ppm	
2148	Sulfur tetrafluoride	7783-60-0	0.1	0.1	2.08	2.08	ppm	
2149	Sulfur trioxide	7446-11-9	0.6	2	10	30	mg/m3	ERPG-1, -2, -3
2150	Sulfuric acid	7664-93-9	1	2	10	30	mg/m3	ERPG-1, -2, -3
2151	Sulfurous acid	7782-99-2	0.0125	0.04	0.3	1.5	mg/m3	Exists only in solution
2152	Sulfuryl fluoride	2699-79-8	5	10	200	200	ppm	
2153	Talc	14807-96-6	2	2	10	500	mg/m3	
2154	Tall oil (alkyd resin)	68333-62-0	10	30	50	250	mg/m3	
2155	Tantalum	7440-25-7	5	10	25	500	mg/m3	Added.
2156	Tantalum carbide	12070-06-3	5	10	10	10	mg/m3	Added. TSCA listed, no toxicity data
2157	Tantalum(V) fluoride	7783-71-3	7.5	20	35	100	mg/m3	
2158	Tantalum(V) oxide	1314-61-0	6	12.5	30	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2159	Tartaric acid	87-69-4	4	12.5	75	400	mg/m3	
2160	Technetium(IV) oxide	12036-16-7	10	30	50	250	mg/m3	Radiation dose will dominate
2161	Tellurium	13494-80-9	0.1	0.3	20	25	mg/m3	
2162	Tellurium chloride	10026-07-0	0.2	0.6	10	50	mg/m3	
2163	Tellurium hexafluoride	7783-80-4	0.035	0.1	0.10	1.5	ppm	
2164	Tellurium oxide; (Tellurium dioxide)	7446-07-3	0.125	0.35	0.6	30	mg/m3	
2165	Tellurous acid	10049-23-7	0.125	0.4	0.6	35	mg/m3	
2166	Terbium oxide	12036-41-8	10	30	50	250	mg/m3	Listed in TSCA, no toxicity data, PNOS used, no stable isotopes.
2167	Terbufos	13071-79-9	0.2	0.6	1	1	mg/m3	
2168	Terephthalic acid	100-21-0	10	30	50	500	mg/m3	Added.
2169	Terephthaloyl chloride	100-20-9	0.75	2.5	20	500	mg/m3	
2170	Terphenyl; p-	92-94-4	5	5	9	500	mg/m3	
2171	Terphenyls; (Diphenylbenzene)	26140-60-3	5	5	9	500	mg/m3	
2172	Tert-butyl alcohol; (tert-Butanol)	75-65-0	100	150	1600	1600	ppm	
2173	Tetraamminepalladium(II) nitrate	13601-08-6	1.5	5	35	150	mg/m3	TSCA listed. No toxicity information. LD50 based on HR
2174	Tetrabromoethane, 1,1,2,2-; (Acetylene tetrabromide)	79-27-6	1	1.25	5	8	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2175	Tetrabutyl ammonium phosphate	5574-97-1	10	30	50	250	mg/m3	Not found in databases; added CASRN ex LANL, changed last digit.
2176	Tetrabutyl titanate; (Butyl titanate)	5593-70-4	0.75	2.5	20	100	ppm	
2177	Tetrabutylammonium dihydrogen phosphate	5574-97-0	10	30	50	250	mg/m3	
2178	Tetrabutylammonium hydroxide	2052-49-5	0.06	0.15	1.25	6	mg/m3	Added.
2179	Tetrabutylammonium nitrate	1941-27-1	0.075	0.25	1.5	7.5	mg/m3	Added.
2180	Tetrachlorobenzene, 1,2,3,4-	634-66-2	12.5	35	250	500	mg/m3	
2181	Tetrachlorobenzene, 1,2,4,5-	95-94-3	10	30	50	500	mg/m3	
2182	Tetrachlorodibenzofuran, 2,3,7,8-	51207-31-9	0.0006	0.002	0.002	0.002	mg/m3	
2183	Tetrachlorodibenzo-p-dioxin, 1,2,3,8-	53555-02-5	0.004	0.0125	0.075	0.4	mg/m3	
2184	Tetrachloroethane (mixed isomers)	25322-20-7	1.5	5	35	400	ppm	
2185	Tetrachloroethane, 1,1,1,2-	630-20-6	3	7.5	60	200	ppm	
2186	Tetrachloroethane, 1,1,2,2-	79-34-5	3	3	5	100	ppm	
2187	Tetrachlorohexafluorobutane, 2,2,3,3-; (FLON; CFC316)	375-34-8	0.2	0.6	4	20	ppm	
2188	Tetrachlorosilane; (Silicon chloride)	10026-04-7	0.25	0.75	5	37	ppm	ERPG-1, -2, -3
2189	Tetracosafuorotetradecahydro-phenanthrene	306-91-2	10	30	50	250	mg/m3	Added. TSCA-listed, no toxicity data.
2190	Tetracyanoquinodimethane; (Ultima Gold AB)	1518-16-7	0.4	1.25	10	50	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2191	Tetracycline hydrochloride	64-75-5	0.75	2.5	15	500	mg/m3	
2192	Tetradecane	629-59-4	0.04	0.125	1	1250	ppm	
2193	Tetradecanoic acid; (Myristic acid)	544-63-8	0.35	1	7.5	35	mg/m3	
2194	Tetraethyl lead	78-00-2	0.1	0.4	0.75	60	mg/m3	
2195	Tetraethyl orthosilicate; (Ethyl silicate; Tetraethoxysilane)	78-10-4	25	25	100	300	ppm	ERPG-1, -2, -3
2196	Tetraethyl pyrophosphate; (TEPP)	107-49-3	0.05	0.15	1	5	mg/m3	
2197	Tetraethylene Glycol	112-60-7	125	350	500	500	mg/m3	Added.
2198	Tetraethylenepentamine	112-57-2	0.75	2.5	15	75	mg/m3	
2199	Tetraethyltin; (Tetraethylstannane)	597-64-8	0.2	0.4	7	50	mg/m3	
2200	Tetrafluoroethane, 1,1,1,2-; (HFC 134a)	811-97-2	1000	3000	50000	150000	ppm	
2201	Tetrafluoroethylene	116-14-3	2	200	1000	10000	ppm	ERPG-1, -2, -3 reviewed, unchanged
2202	Tetrafluorohydrazine	10036-47-2	0.75	2.25	3.75	100	ppm	
2203	Tetrahydro-2,5-dimethyl furan	1003-38-9	15	50	350	500	mg/m3	Listed in H&N; used Tetrahydrodimethylfuran CASRN 1320-94-1
2204	Tetrahydrofuran	109-99-9	200	250	1000	2000	ppm	
2205	Tetramethoxysilane; (Methyl silicate)	681-84-5	1	1.5	10	20	ppm	ERPG-2, -3

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2206	Tetramethyl ethylene diamine	110-18-9	10	30	125	125	ppm	Added.
2207	Tetramethyl lead	75-74-1	0.1	0.6	4	50	mg/m3	
2208	Tetramethyl-1,3-butanediamine, n,n,n',n'-; (Tetramethyl butanediamine)	97-84-7	2	6	40	200	mg/m3	
2209	Tetramethyl-5-decyne-4,7-diol, 2,4,7,9-	126-86-3	10	30	50	250	mg/m3	
2210	Tetramethylammonium hydroxide	75-59-2	0.06	0.15	1.25	6	mg/m3	
2211	Tetramethylsilane	75-76-3	5	15	25	125	ppm	
2212	Tetranitromethane	509-14-8	1	1	1	4	ppm	
2213	Tetraoxatetracosan-1-ol, 3,6,9,12-; ((Laurel alcohol tri(oxyethylene) ethanol; BRIJ 30)	5274-68-0	10	30	50	250	mg/m3	Added. TSCA, HC&P listed, no toxicity data
2214	Tetraphenylarsonium chloride; (Tetraphenylarsenium chloride)	507-28-8	2.5	7.5	12.5	25	mg/m3	
2215	Tetrapotassium ethylenediaminetetraacetate; (EDTA)	5964-35-2	4	15	75	400	mg/m3	EDTA tetrapotassium salt, MW corrected to match MF. No toxicity data SAR
2216	Tetrapropylammonium hydroxide	4499-86-9	0.15	0.5	3.5	15	mg/m3	
2217	Tetrasodium pyrophosphate	7722-88-5	5	15	25	500	mg/m3	
2218	Thallium	7440-28-0	0.1	0.3	2	15	mg/m3	
2219	Thallium chloride; (Thallium(I) chloride)	7791-12-0	0.4	1.25	2	10	mg/m3	
2220	Thallium hydroxide	12026-06-1	0.1	0.3	0.5	15	mg/m3	
2221	Thallium nitrate; (Thallium(I) nitrate)	10102-45-1	0.125	0.4	6	20	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2222	Thallium nitrite	13826-63-6	0.125	0.35	0.6	15	MG/M3	
2223	Thallium oxide	1314-12-1	0.1	0.3	0.5	15	mg/m3	
2224	Thallium sulfate; (Sulfuric acid, dithallium(1+) salt)	10031-59-1	0.1	0.3	2	15	mg/m3	. RTECS & HSDB MW = 1528.67
2225	Thallium(I) acetate; (Acetic acid, thallium(1+) salt)	563-68-8	0.125	0.4	0.6	20	mg/m3	
2226	Thallium(I) carbonate (2:1)	6533-73-9	0.4	1.25	2	10	mg/m3	
2227	Thallium(I) sulfate; (Sulfuric acid, dithallium(1+) salt)	7446-18-6	0.0002	0.0006	0.004	0.006	mg/m3	
2228	Thallium(III) oxide	1314-32-5	2	2	2	20	mg/m3	
2229	Thallium(III) perchlorate hexahydrate	15596-83-5	0.3	0.9	1.5	40	mg/m3	Added. Used Thallium soluble compound limits, assumed to be "hexahydrate"
2230	Thallos malonate	2757-18-8	0.125	0.35	2	15	mg/m3	
2231	Thenoyltrifluoroacetone	326-91-0	1.25	3.5	25	125	mg/m3	
2232	Thioacetamide	62-55-5	10	30	50	125	mg/m3	
2233	Thiobis(4-chloro-6-methyl)phenol, 2,2'-	4418-66-0	0.25	0.75	1.3	1.3	mg/m3	
2234	Thiocarbazine; (Thiocarbohydrazide)	2231-57-4	20	60	100	100	mg/m3	
2235	Thiocyanic acid; (Guanidene thiocyanate salt)	593-84-0	1.25	3.5	25	125	mg/m3	Added.
2236	Thiodiglycol	111-48-8	25	75	500	500	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2237	Thiofanox; (Dacamox)	39196-18-4	8.5	8.5	8.5	30	mg/m3	
2238	Thionazin; (Ethyl pyrazinyl phosphorothioate)	297-97-2	0.6	2	3.5	3.5	mg/m3	
2239	Thionyl chloride	7719-09-7	0.2	0.2	2	10	ppm	ERPG-1, -2, -3
2240	Thiosemicarbazide	79-19-6	0.075	0.2	1.5	4	mg/m3	
2241	Thiourea	62-56-6	10	10	25	125	mg/m3	
2242	Thiram; (Tetramethylthioperoxydicarbonic diamide)	137-26-8	5	5	5	100	mg/m3	
2243	Thorium	7440-29-1	10	30	50	250	mg/m3	
2244	Thorium hydroxide	13825-36-0	0.75	0.75	2.5	75	mg/m3	CASRN added. SAR
2245	Thorium nitrite	z-0079	0.05	0.125	0.75	75	mg/m3	SAR
2246	Thorium oxide	1314-20-1	25	75	500	500	mg/m3	
2247	Thorium(IV) nitrate	13823-29-5	0.75	2	15	25	mg/m3	
2248	Thulium chloride heptahydrate (as TmCl3)	13537-18-3	15	50	350	500	mg/m3	
2249	Thulium oxide	12036-44-1	10	30	50	250	mg/m3	Listed in TSCA, no toxicity data, PNOS used, no stable isotopes.
2250	Thymol blue; (6,6(3H-2,1-benzoxathiol-3-ylidene)di-,S,S-dioxide)	76-61-9	10	30	50	250	mg/m3	
2251	Thyodene; (Amylodextrin)	9005-84-9	10	30	50	250	mg/m3	Listed in TSCA and H&N
2252	Tin	7440-31-5	2	6	100	100	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2253	Tin hydroxide	12026-24-3	2.5	7.5	12.5	125	mg/m3	Listed in TSCA and HC&P
2254	Tin nitrate	41480-79-9	4	12.5	20	200	mg/m3	CASRN ex LANL added
2255	Tin nitrite	z-0080	3.5	10	15	150	mg/m3	
2256	Tin(II) chloride dihydrate; (Stannous chloride dihydrate)	10025-69-1	3.5	10	15	150	mg/m3	Added.
2257	Tin(II) oxide	1332-29-2	2.5	7.5	12.5	125	mg/m3	
2258	Tin(II) sulfate; (Stannous sulfate)	7488-55-3	3.5	10	15	500	mg/m3	Added.
2259	Tin(IV) oxide; (Stannic oxide)	18282-10-5	2.5	7.5	12.5	125	mg/m3	Added. Rat oral LD50 > 20 g/kg
2260	Titanium	7440-32-6	10	30	50	250	mg/m3	
2261	Titanium aluminide	39410-63-4	10	30	50	250	mg/m3	Added. TSCA listed, with CASRN = 12004-78-3
2262	Titanium boride	12045-63-5	10	30	50	250	mg/m3	Added. TSCA listed, no toxicity data
2263	Titanium carbide	12070-08-5	12.5	35	60	300	mg/m3	Added. No toxicity data found
2264	Titanium chloride	7705-07-9	0.5	1.5	10	50	mg/m3	
2265	Titanium hydride	7704-98-5	1.5	5	35	150	mg/m3	
2266	Titanium oxide; (Titanium dioxide)	13463-67-7	15	15	15	500	mg/m3	
2267	Titanium tetrachloride	7550-45-0	0.2	0.65	2.6	13	ppm	ERPG-1, -2, -3 changed from mg/m3 to ppm
2268	Titanium(II) oxide	12137-20-1	10	30	50	250	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2269	Titanium(III) fluoride	7783-63-3	4	4	4	4	mg/m3	
2270	Titanium-based alloy; (Titanium compounds)	z-0081	10	30	50	250	mg/m3	
2271	Toluene	108-88-3	50	50	300	1000	ppm	ERPG-1, -2, -3
2272	Toluene-1,3-diisocyanate	26471-62-5	0.25	0.75	1.5	1.5	ppm	
2273	Toluene-2,4-diisocyanate; (TDI)	584-84-9	0.005	0.01	0.15	0.6	ppm	ERPG-1, -2, -3
2274	Toluene-2,6-diamine; (2_Methyl-1,2-benzenediamine)	823-40-5	1.5	4	30	150	mg/m3	LD50 estimated
2275	Toluene-2,6-diisocyanate	91-08-7	0.005	0.01	0.15	0.6	ppm	ERPG-1, -2, -3
2276	Toluenediamine, 2,4-; (2,4-Diaminotoluene)	95-80-7	4	12.5	75	125	mg/m3	
2277	Toluenesulfonyl chloride, p-	98-59-9	15	50	350	500	mg/m3	Added. No toxicity data found, LD50 estimated
2278	Toluenesulphonic acid monohydrate, para; (4-Methylbenzenesulphonic acid monohydrate)	6192-52-5	10	30	200	500	mg/m3	Added. SAX TGO000, CASRN = 104-15-4, MW = 172.21 without "hydrate"
2279	Toluenethiol, m-	108-40-7	0.2	0.6	4	20	mg/m3	
2280	Toluidene, o-	95-53-4	5	6	10	50	ppm	
2281	Toluidine, m-	108-44-1	2	2	7.5	40	ppm	
2282	Toluidine, p-; (4-Methylbenzenamine)	106-49-0	2	6	10	300	mg/m3	
2283	Toxaphene; (Chlorinated camphene)	8001-35-2	0.5	1	20	200	mg/m3	
2284	Trans-1,4-dichlorobutene; (2-Butylene dichloride)	110-57-6	0.04	0.125	0.86	7.5	ppm	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2285	Transformer oil; (Mineral oil, petroleum distillates, hydrotreated (mild) light naphthenic)	64742-53-6	35	100	500	500	mg/m3	Added. Severe irritant rb sk
2286	Tri(2-ethylhexyl) phosphate; (Tris(2-ethylhexyl)phosphate)	78-42-2	12.5	12.5	12.5	12.5	mg/m3	
2287	Triacetin; (Triacetyl glycerin)	102-76-1	12.5	35	250	500	mg/m3	
2288	Triamiphos	1031-47-6	2	6	10	10	mg/m3	
2289	Triazine-1,3,5(2H,4H,6H)-triethanol, s-; (Onyxide 200))	4719-04-4	3	10	60	350	mg/m3	Name changed
2290	Triazofos; (Triazophos)	24017-47-8	0.5	1.5	2.8	125	mg/m3	
2291	Tributyl phosphate	126-73-8	0.46	0.6	1	30	ppm	
2292	Tributyl(2,4-dichlorobenzyl)phosphonium chloride	115-78-6	0.75	2	15	75	mg/m3	
2293	Tributyltetradecylphosphonium chloride	81741-28-8	10	30	50	250	mg/m3	PNOS used.
2294	Trichloramine; (Nitrogen chloride)	10025-85-1	0.125	0.35	2.5	25	ppm	
2295	Trichloro(dichlorophenyl) silane	27137-85-5	0.03	0.1	0.70	0.70	ppm	
2296	Trichloro-2,2,2-trifluoroethane, 1,1,1-	354-58-5	250	500	500	500	mg/m3	
2297	Trichloroacetaldehyde hydrate; (Chloral hydrate)	302-17-0	10	30	50	50	mg/m3	
2298	Trichloroacetaldehyde; (Chloral)	75-87-6	2.5	7.5	50	250	mg/m3	
2299	Trichloroacetic acid	76-03-9	1	1	2	25	ppm	
2300	Trichloroacetyl chloride	76-02-8	0.03	0.075	0.61	6	ppm	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2301	Trichlorobenzene, 1,2,3-	87-61-6	6	15	125	500	mg/m3	
2302	Trichlorobenzene, 1,2,4-	120-82-1	5	5	5	40	ppm	
2303	Trichloroethane, 1,1,1-; (Methyl chloroform)	71-55-6	350	350	700	3500	ppm	ERPG-1, -2, -3
2304	Trichloroethane, 1,1,2-	79-00-5	10	10	20	100	ppm	
2305	Trichloroethylene	79-01-6	100	100	500	5000	ppm	ERPG-1, -2, -3
2306	Trichloroethylsilane; (Ethyl trichlorosilane)	115-21-9	0.02	0.06	0.45	6	ppm	
2307	Trichlorofluoromethane; (Fluorotrichloromethane, Freon 11)	75-69-4	500	500	1500	2000	ppm	
2308	Trichloronaphthalene	1321-65-9	5	15	25	125	mg/m3	Added.
2309	Trichloronate; (Ethyl trichlorophenylethylphosphonothioate)	327-98-0	2	6	10	300	mg/m3	
2310	Trichlorophenol, 2,3,6-	933-75-5	1.25	4	25	125	mg/m3	
2311	Trichlorophenol, 2,4,5-	95-95-4	10	30	50	350	mg/m3	
2312	Trichlorophenol, 2,4,6-	88-06-2	10	30	350	350	mg/m3	
2313	Trichlorophenoxy)propionic acid, 2-(2,4,5-; (2,4,5-Silvex)	93-72-1	10	30	50	250	mg/m3	
2314	Trichlorophenoxyacetic acid, 2,4,5-; (2,4,5-T)	93-76-5	10	30	50	250	mg/m3	
2315	Trichlorophenylsilane	98-13-5	0.15	0.4	3.3	40	mg/m3	
2316	Trichloropropane, 1,2,3-	96-18-4	10	10	10	100	ppm	PEL-TWA not used

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2317	Trichlorosilane	10025-78-2	0.35	1	3	25	ppm	ERPG-1, -2, -3
2318	Trichlorotrifluoroethane; (Freon 113; CFC113)	76-13-1	1000	1250	1500	2000	ppm	
2319	Tridecane	629-50-5	10	30	200	500	mg/m3	
2320	Triethanolamine; (Trihydroxytriethylamine)	102-71-6	5	5	20	500	mg/m3	
2321	Triethoxysilane	998-30-1	0.05	0.15	0.75	15	ppm	
2322	Triethyl phosphate	78-40-0	20	60	400	500	mg/m3	
2323	Triethyl phosphite	122-52-1	2	6	40	200	ppm	
2324	Triethylaluminum	97-93-8	7.5	7.5	37.5	250	mg/m3	Added.
2325	Triethylamine	121-44-8	1	3	3	200	ppm	PEL-TWA not used
2326	Triethylbenzene (mixed isomers)	25340-18-5	6	15	125	600	ppm	Changed name by deleting "1,2,4-"
2327	Triethylene glycol	112-27-6	300	500	500	500	mg/m3	
2328	Triethylene glycol monomethyl ether	112-35-6	40	125	500	500	mg/m3	
2329	Triethylenetetramine	112-24-3	15	50	350	500	mg/m3	
2330	Trifluoroacetic acid; (Trifluoroethanoic acid)	76-05-1	10	15	15	15	ppm	
2331	Trifluoroacetyl chloride	354-32-5	1	3	5	250	ppm	
2332	Trifluorobromomethane; Halon 1301; Ethane, 1-bromo-2-chloro-1,1,2-trifluoro-)	354-06-3	50	150	1000	5000	ppm	Name changed, synonym added

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2333	Trifluoroethanol, 2,2,2-; (Trifluoroethyl alcohol D3)	75-89-8	4	12.5	60	60	ppm	Added. Used RTECS rat LC50
2334	Trifluoro-l-(2-thienyl)-1,3-butanedione, 4,4,4-boron difluoride	22502-27-8	0.75	2.5	15	75	mg/m3	
2335	Trifluoromethyl)benzenamine, 3-(; (m-Aminobenzal fluoride)	98-16-8	0.75	2.5	4.4	150	mg/m3	
2336	Trifluralin; (2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl) benzenamine	1582-09-8	0.025	0.075	0.6	300	mg/m3	
2337	Triisobutylaluminum	100-99-2	15	45	75	500	mg/m3	Added.
2338	Trimethoxyboroxine	102-24-9	20	60	400	500	mg/m3	Added.
2339	Trimethoxysilane	2487-90-3	0.05	0.5	2	5	ppm	ERPG-1, -2, -3
2340	Trimethyl phosphate; (TMP)	512-56-1	5	15	60	60	ppm	
2341	Trimethyl phosphite	121-45-9	2	6	10	750	ppm	
2342	Trimethyl-1,3-pentanediol monoisobutyrate, 2,2,4-; (Texanol)	25265-77-4	25	75	500	500	mg/m3	
2343	Trimethyl-2,5,8,11-tetraoxatetradecan-13-ol, 4,7,10-	20324-34-9	10	30	50	250	mg/m3	
2344	Trimethyl-2-hexene, 4,4,5-	55702-61-9	10	30	50	250	mg/m3	
2345	Trimethylamine	75-50-3	5	15	100	500	ppm	ERPG-2, -3; ignored ERPG-1, all reviewed, unchanged
2346	Trimethylammonium chloride	75-57-0	0.2	0.6	4	20	mg/m3	Added.
2347	Trimethylaniline, 2,4,6-	88-05-1	0.125	0.4	2.9	40	mg/m3	
2348	Trimethylbenzene, 1,2,3-	526-73-8	25	75	125	750	ppm	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2349	Trimethylbenzene, 1,2,4-; (Pseudocumene)	95-63-6	25	36.6	36.6	1500	ppm	
2350	Trimethylbicyclo(3.1.1)-2-hept-2-ene, 2,6,6-; (Alpha-Pinene)	80-56-8	0.00015	0.0005	0.0035	0.015	mg/m3	Name added
2351	Trimethylchlorosilane	75-77-4	1	3	20	150	ppm	ERPG-1, -2, -3
2352	Trimethyldecane, 2,2,8-	62238-01-1	46.5	46.5	239	1250	ppm	NIOSH limits for Alkanes used
2353	Trimethyldecane, 2,5,6-	62108-23-0	46.5	46.5	239	1250	ppm	NIOSH limits for Alkanes used
2354	Trimethyldecane, 3,3,4-	62338-09-4	46.5	46.5	239	239	ppm	NIOSH limits for Alkanes used
2355	Trimethylhexane, 2,2,5-	3522-94-9	66.8	66.8	343	1500	ppm	NIOSH limits for Alkanes used
2356	Trimethyloctane, 2,2,6-	62016-28-8	54.8	54.8	282	1250	ppm	NIOSH limits for Alkanes used
2357	Trimethyloctane, 2,3,6-	98060-52-7	54.8	54.8	282	1000	ppm	NIOSH limits for Alkanes used
2358	Trimethyloctane, 2,3,7-	62016-34-6	54.8	54.8	282	1250	ppm	NIOSH limits for Alkanes used
2359	Trimethyloctane, 2,4,6-	62016-37-9	54.8	54.8	282	1250	ppm	NIOSH limits for Alkanes used
2360	Trimethyloctane, 2,6,6-	54166-32-4	54.8	54.8	282	1250	ppm	NIOSH limits for Alkanes used
2361	Trimethylolpropane phosphite	824-11-3	0.125	0.35	2.5	6	mg/m3	
2362	Trimethylpentane, 2,2,4-	540-84-1	74.9	74.9	385	2000	ppm	NIOSH limits for Alkanes used. MF corrected
2363	Trimethylpyridine, 2,4,6-	108-75-8	1.5	5	35	150	ppm	
2364	Trimethylsilanol	1066-40-6	0.05	0.5	2	5	ppm	SAR

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2365	Trimethyltin chloride; (Chlorotrimethylstannane)	1066-45-1	0.15	0.35	20	40	mg/m3	
2366	Trimethyltriheptylamine, 6,6',6''-; (Triisooctylamine)	2757-28-0	10	15	50	500	mg/m3	Name changed
2367	Trinitrobenzene 1,3,5-	99-35-4	10	30	50	125	mg/m3	
2368	Trinitrochlorobenzene, 2,4,6-; (Picryl chloride)	28260-61-9	10	30	50	250	mg/m3	
2369	Trinitrophenylmethylnitramine, 2,4,6-; (Tetryl)	479-45-8	1.5	4.5	7.5	500	mg/m3	
2370	Trinitrotoluene, 2,4,6-	118-96-7	1.5	1.5	1.5	500	mg/m3	
2371	Tri-n-octylphosphine oxide; (Trioctylphosphine oxide)	78-50-2	10	30	50	250	mg/m3	
2372	Trioctylamine; (n,n-Dioctyl-1-octanamine)	1116-76-3	4	12.5	75	400	mg/m3	
2373	Tri-o-tolyl phosphate; (Triorthocresyl phosphate)	78-30-8	0.1	0.3	0.5	40	ppm	
2374	Tripentaerythritol; (Tripenek)	78-24-0	10	30	50	250	mg/m3	Added. TSCA, H&N listed, no toxicity data
2375	Triphenol sulfonium chloride salts	109037-76-5	10	10	25	125	mg/m3	
2376	Triphenyl phosphate	115-86-6	3	9	150	500	mg/m3	
2377	Triphenyl phosphite	101-02-0	7.5	25	150	200	mg/m3	Added.
2378	Triphenylphosphine	603-35-0	1.5	5	40	500	mg/m3	Added.
2379	Triphenyltin chloride; (Chlorotriphenylstannane)	639-58-7	0.3	0.6	20	75	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2380	Tripotassium (2-hydroxyethyl)-ethylenediaminetriacetate; (HEDTA)	z-0082	0.35	1	7.5	40	ppm	SAX lists HEDTA as synonym for "N-hydroxyethylenediaminetriacetic acid" SAR
2381	Tripotassium arsenate	13464-36-3	0.035	0.1	0.15	15	mg/m3	CASRN, MW, SG ex HC&P
2382	Tripotassium glycol monomethyl ether, (1-(2-(2-methoxy-1-methylethoxy)-1-methylethoxy)-2-propanol)	20324-33-8	0.03	0.1	0.6	150	ppm	synonym changed
2383	Tripropylene glycol; (((1-methyl-1,2-ethanediy)bis(oxy))bis-propanol)	1638-16-0	1.5	5	35	150	ppm	SAX, RTECS, HSDB CASRN = 24800-44-0, TSCA lists both CASRNs. MF questionable
2384	Tris(2-chloroethyl) phosphate; (2-Chloroethanol phosphate)	115-96-8	7.5	20	150	500	mg/m3	Added.
2385	Tris(2-chloroethyl)amine	555-77-1	4	10	10	10	mg/m3	Unable to confirm previous synonym "Nitrogen mustard 3"
2386	Tris(dimethylaminomethyl)phenol, 2,4,6-	90-72-2	5	15	100	500	mg/m3	
2387	Tris(hydroxymethyl) aminomethane hydrochloride	1185-53-1	10	30	50	250	mg/m3	Added. TSCA listed, no toxicity data. MSDS not useful
2388	Tris-hydroxymethylaminomethane; (THAM)	77-86-1	25	75	500	500	mg/m3	
2389	Trisodium arsenate	13464-38-5	0.025	0.075	0.125	12.5	mg/m3	MW and MF vary
2390	Trisodium arsenate, heptahydrate; (Arsenic(V) acid, trisodium salt, heptahydrate (1:3:7))	64070-83-3	0.04	0.125	0.2	20	mg/m3	
2391	Trisodium citrate	68-04-2	0.6	1.5	12.5	60	ppm	TSCA has different MF
2392	Trisodium ethylenediaminetriacetate; (Trisodium-N-(2-hydroxyethyl)ethylenediaminetriacetate)	139-89-9	4	12.5	75	400	mg/m3	HSDB, HC&P MW = 344.2, but RTECS, H&N MW =347.27 SAR
2393	Triton X-100; (Poly(oxyethylene)-p-tert-octylphenyl ether)	9002-93-1	15	40	300	500	mg/m3	
2394	Trododecylamine; (Alamine 304; N,N-didodecyl-1-dodecanamine)	102-87-4	10	30	50	250	MG/M3	Added. TSCA, HC&P listed, no toxicity data

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2395	Trypan blue	72-57-1	10	30	50	500	mg/m3	
2396	Tungsten	7440-33-7	5	10	10	500	mg/m3	
2397	Tungsten carbide	12070-12-1	5	10	10	10	mg/m3	Added. No toxicity data found
2398	Tungsten hexafluoride	7783-82-6	1.5	5	7.5	400	mg/m3	
2399	Tungsten trioxide; (Tungsten(VI) oxide)	1314-35-8	6	12.5	30	400	mg/m3	
2400	Tungsten(IV) oxide	12036-22-5	6	10	10	10	mg/m3	
2401	Tungstic acid	7783-03-1	6	12.5	12.5	12.5	mg/m3	Listed in TSCA, no toxicity data. Insoluble W compound
2402	Turpentine	8006-64-2	100	100	100	800	ppm	Added.
2403	Undecane	1120-21-4	0.35	1	6	35	ppm	
2404	Undecanone, 2-; (Methyl nonyl ketone)	112-12-9	0.2	0.6	4	300	ppm	
2405	Uranine; (Fluorescein sodium)	518-47-8	12.5	40	250	500	mg/m3	
2406	Uranium	7440-61-1	0.05	0.6	1	10	mg/m3	
2407	Uranium hexafluoride; (Uranium fluoride)	7783-81-5	0.075	5	15	30	mg/m3	ERPG-1, -2, -3 reviewed, unchanged
2408	Uranium hydride; (Uranium(III) hydride)	13598-56-6	0.05	0.6	1	10	mg/m3	
2409	Uranium oxide; (Triuranium octaoxide)	1344-59-8	0.06	0.6	10	50	mg/m3	New ERPG-2, -3
2410	Uranium telluride	12138-37-3	0.075	1	1.75	15	mg/m3	MF = U.Te2

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2411	Uranium telluride-2	12138-37-4	0.1	1.25	2	20	mg/m3	Insoluble U compound. Last digit of CASRN changed for sorting
2412	Uranium(IV) oxide; (Uranium black oxide)	1344-57-6	0.05	0.6	1	10	mg/m3	Insoluble U compound
2413	Uranium: insoluble compounds	z-0083	0.05	0.6	1	10	mg/m3	Insoluble U compound
2414	Uranium: soluble compounds	z-0084	0.05	0.6	1	10	mg/m3	
2415	Uranyl acetate; (Uranium oxyacetate)	541-09-3	0.075	1	1.75	15	mg/m3	
2416	Uranyl fluoride; (Uranium oxyfluoride)	13536-85-0	0.06	0.75	1.25	12.5	mg/m3	Added.
2417	Uranyl hydroxide	z-0085	0.06	0.75	1.25	12.5	mg/m3	
2418	Uranyl hydroxide (liquids)	z-0086	0.06	0.75	1.25	12.5	mg/m3	
2419	Uranyl nitrate (solid); (Bis(nitrato-O,O')dioxouranium)	10102-06-4	0.075	1	1.5	15	mg/m3	
2420	Uranyl nitrate hexahydrate	13520-83-7	0.1	1.25	1.25	20	mg/m3	
2421	Uranyl nitrate; (yellow salt)	36478-76-9	0.075	1	1	15	mg/m3	
2422	Uranyl nitrite (liquids)	z-0087	0.075	0.75	1.5	15	mg/m3	
2423	Urea	57-13-6	0.6	2	15	500	mg/m3	
2424	Urethane; (Carbamic acid, ethyl ester; Ethyl carbamate)	51-79-6	500	500	500	500	mg/m3	
2425	Valinomycin	2001-95-8	0.5	1.5	2.5	2.5	mg/m3	
2426	Vanadium	7440-62-2	0.025	0.075	2.5	20	mg/m3	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2427	Vanadium pentoxide; (Vanadium(V) oxide)	1314-62-1	0.05	0.5	0.5	35	mg/m3	
2428	Vanadium sulfate	16785-81-2	0.5	1.5	10	50	mg/m3	
2429	Vanadium tetrachloride	7632-51-1	0.6	2	12.5	60	mg/m3	
2430	Vanadium(II) sulfate heptahydrate	36907-42-3	0.15	0.15	0.15	0.75	mg/m3	
2431	Vanadium(III) sulfate	13701-70-7	0.1	0.1	0.1	0.5	mg/m3	
2432	Vanadyl sulfate pentahydrate; (Vanadium(IV) sulfate oxide hydrate)	12439-96-2	0.06	0.18	0.3	200	mg/m3	
2433	Vanadyl sulfate; (Oxysulfatovanadium)	27774-13-6	0.075	0.75	0.75	60	mg/m3	
2434	Vegetable oil	68956-68-3	15	30	50	500	mg/m3	
2435	Vermiculite, exfoliated	1318-00-9	10	30	50	250	mg/m3	Added. Hawley listed, no toxicity data.
2436	Vinyl acetate	108-05-4	5	5	75	500	ppm	ERPG-1, -2, -3 reviewed, unchanged
2437	Vinyl acetate-vinyl chloride copolymer; (Acetic acid, vinyl ester, polymer with chloroethylene)	9003-22-9	35	100	500	500	mg/m3	
2438	Vinyl acrylic resin; (Vinyl acetate, polymer with n-butyl acrylate)	25067-01-0	10	30	50	250	mg/m3	
2439	Vinyl bromide	593-60-2	5	15	25	50	ppm	
2440	Vinyl chloride	75-01-4	1	500	5000	20000	ppm	New ERPG-1, -2, -3. T-1, -2, -3 changed
2441	Vinyl ethyl ether; (Ethoxy ethene)	109-92-2	15	50	350	1500	ppm	
2442	Vinyl fluoride	75-02-5	1	3	500	2500	ppm	

Note: Bolded chemicals and CASRN have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2443	Vinylidene chloride; (1,1-dichloroethylene)	75-35-4	5	20	20	600	ppm	
2444	Vinylidene fluoride; (1,1-Difluoroethene)	75-38-7	500	500	500	12500	ppm	
2445	Warfarin	81-81-2	0.1	0.3	20	20	mg/m3	
2446	Warfarin sodium	129-06-6	1.5	5	9	9	mg/m3	
2447	Xenon	7440-63-3	60000	145000	280000	500000	ppm	Added. Simple asphyxiant (see Introduction)
2448	Xylene	1330-20-7	100	150	200	900	ppm	
2449	Xylene, m-	108-38-3	100	150	200	900	ppm	
2450	Xylene, o-	95-47-6	100	150	200	900	ppm	
2451	Xylene, p-	106-42-3	100	150	200	900	ppm	
2452	Xylenol orange tetrasodium salt	3618-43-7	10	30	50	250	mg/m3	
2453	Xylidine	1300-73-8	1.5	1.5	2.5	50	ppm	
2454	Xylidine, 2,6-	87-62-7	6	20	125	350	mg/m3	
2455	Xylidine, o-; (2,3-Xylidine)	87-59-2	0.5	10	10	50	ppm	
2456	Xylylene dichloride	28347-13-9	0.4	1.25	2	75	mg/m3	
2457	Yeast extract	8013-01-2	15	50	400	500	mg/m3	Added.
2458	Ytterbium fluoride	13760-80-0	10	10	10	10	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2459	Ytterbium oxide	1314-37-0	10	30	50	250	mg/m3	
2460	Yttrium	7440-65-5	1	3	5	25	mg/m3	
2461	Yttrium oxide	11130-29-3	1	3	5	500	mg/m3	Rat oral LD50 > 5 g/kg
2462	Yttrium trioxide	1314-36-9	1.25	4	6	500	mg/m3	
2463	Zeolites, -NaA-; (Molecular sieve-4A-)	68989-22-0	6	15	125	500	mg/m3	Added.
2464	Zinc	7440-66-6	10	30	50	250	mg/m3	
2465	Zinc acetate	557-34-6	0.3	0.75	6	500	mg/m3	
2466	Zinc acetate dihydrate	5970-45-6	25	75	350	350	mg/m3	Added.
2467	Zinc bromide	7699-45-8	10	30	50	200	mg/m3	
2468	Zinc carbonate	3486-35-9	5	15	100	500	mg/m3	
2469	Zinc chloride	7646-85-7	2	4	10	40	mg/m3	
2470	Zinc cyanide	557-21-1	20	20	20	100	mg/m3	
2471	Zinc fluoride	7783-49-5	6	6	20	100	mg/m3	
2472	Zinc hydroxide	20427-58-1	0.6	0.6	1.5	60	mg/m3	SAR
2473	Zinc nitrate	7779-88-6	10	10	10	10	mg/m3	
2474	Zinc nitrate hexahydrate	10196-18-6	5	15	100	500	mg/m3	Added.

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2475	Zinc nitrite	10102-02-0	0.035	0.075	0.6	60	mg/m3	SAR
2476	Zinc oxide	1314-13-2	15	15	15	500	mg/m3	
2477	Zinc phenolsulfonate; (Zinc p-hydroxybenzenesulfonate)	127-82-2	0.6	2	12.5	500	mg/m3	
2478	Zinc phosphate (3:2)	7779-90-0	2	6	50	250	mg/m3	SAX, RTECS, TSCA all have H3 in MF, but this would give MW = 392.13
2479	Zinc phosphide	1314-84-7	0.6	1.5	12	60	mg/m3	
2480	Zinc stearate	557-05-1	15	30	50	150	mg/m3	
2481	Zinc sulfate	7733-02-0	0.15	0.5	3.5	500	mg/m3	
2482	Zinc sulfate heptahydrate (1:1:7)	7446-20-0	0.1	0.3	2	200	mg/m3	Added.
2483	Zirconium and compounds (as Zr)	7440-67-7	5	10	10	50	mg/m3	
2484	Zirconium boride	12045-64-6	6	12.5	30	60	mg/m3	T-2 changed
2485	Zirconium carbide	12070-14-3	6	12.5	12.5	12.5	mg/m3	Added. MW ex SAX, no toxicity data. LANL MW = 103.2
2486	Zirconium chloride	10026-11-6	12.5	25	25	125	mg/m3	
2487	Zirconium chloride oxide octahydrate	13520-92-8	15	35	35	150	mg/m3	
2488	Zirconium fluoride	7783-64-4	7.5	15	15	75	mg/m3	
2489	Zirconium hydride	7704-99-6	5	10	25	50	mg/m3	Added.
2490	Zirconium hydroxide	14475-63-9	7.5	15	15	75	mg/m3	

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Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2491	Zirconium nitrate	13746-89-9	15	35	35	150	mg/m3	
2492	Zirconium nitride	25658-42-8	6	10	12.5	60	mg/m3	Listed in TSCA, HC&P
2493	Zirconium nitrite	z-0088	7.5	15	15	75	mg/m3	
2494	Zirconium oxide	1314-23-4	6	12.5	12.5	60	mg/m3	
2495	Zirconium oxynitrate hydrate	14985-18-3	12.5	25	25	125	mg/m3	
2496	Zirconium phosphide	12037-80-8	7.5	15	15	75	mg/m3	Listed in HC&P with MF and MW; TSCA CASRN = 12037-72-8, MW and MF differ
2497	Zirconium potassium fluoride; (Potassium fluoro-zirconate)	16923-95-8	35	150	150	150	mg/m3	
2498	Zirconium silane	z-0089	7.5	15	15	75	mg/m3	
2499	Zirconium silicate; (Zirconium silicon oxide)	10101-52-7	10	20	50	100	mg/m3	Added. TSCA listed, HC&P has "zirconium orthosilicate", MW = 183.308, MF = Zr SiO4
2500	Zirconium sulfate tetrahydrate	14644-61-2	20	40	40	200	mg/m3	
2501	Zirconyl nitrate; (Bis(nitrato-o)oxozirconium)	13826-66-9	12.5	25	25	125	mg/m3	
2502	zzAcrylic latex	z-0090	10	30	50	250	mg/m3	
2503	zzAlumination 301	z-0091	10	30	50	250	mg/m3	
2504	zzHydranal coulomat / AG	z-0092	10	30	50	250	mg/m3	
2505	zzHydrocarbon polymer	z-0093	10	30	50	250	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.

Table 2: Recommended TEELs Rev. 20 (original units)

No.	Chemical Name	CASRN	Recommended TEELs Rev 20				UNITS	Comments (and changes from TEELs Rev 19)
			TEEL-0	TEEL-1	TEEL-2	TEEL-3		
2506	zzHydrocount(R), LSC cocktail	z-0094	10	30	50	250	mg/m3	
2507	zzIconol(R)	z-0095	10	30	50	250	mg/m3	LANL CASRN not used, but it is used for 7 SAX entries, mainly polyethylene glycol compounds
2508	zzMachine coolant 1	z-0096	10	30	50	250	mg/m3	
2509	zzMonophase- S	z-0097	10	30	50	250	mg/m3	
2510	zzMornar	z-0098	10	30	50	250	mg/m3	
2511	zzOpti-Fluor; (Alkyl benzene blend, 3% tributylphosphate)	z-0099	7.5	25	37.5	250	mg/m3	Mixture ex MSDS used
2512	zzPaint solvent	z-0100	10	10	10	10	mg/m3	
2513	zzPropanol (-2) aluminum derivative	z-0101	2	6	10	50	mg/m3	
2514	zzScintillation cocktail, Ultima Gold XR	z-0102	0.15	0.5	3	15	mg/m3	Used MSDS mixture components
2515	zzSicapent	z-0103	10	30	50	250	mg/m3	
2516	zzSynthetic resins	z-0104	10	30	50	250	mg/m3	
2517	zzTotal sequestrant reagent #5	z-0105	35	40	100	500	mg/m3	Used MSDS mixture components
2518	zzTrifluoroacetyl)-N,0,0,0-tetrakis((TMS)norepinephrine, N-(	z-0106	0.04	0.125	0.75	7.5	mg/m3	Toxicity data for "Norepinephrine", CASRN = 51-41-2, used
2519	zzWaste oil	z-0107	10	30	50	250	mg/m3	

Note: Bolded chemicals and CASRNs have official ERPGs.