

## Table 1: Chemicals of Concern and Associated Chemical Information. PACs Rev 26, September 2010

**Table 1** is an alphabetical list of the chemical substances, their Chemical Abstract Services Registry Numbers (CASRN)<sup>1</sup>, and some physical constants. This table includes columns with the primary references used for TEEL derivation of each chemical, the lowest value found for the lower explosive limit (LEL) in parts per million (ppm), and the National Fire Protection Agency (NFPA) Health Hazard Rating (HHR). Future reviews will result in continuous updates to this data. There are also columns that provide the date of the original derivation of the PAC values, the date of the last technical review of the data used for deriving the PAC values, and the date of the last revision of the data and/or the PAC values.

The information presented in this table is derived from various sources including:

- **The Handbook of Chemistry and Physics**  
Lide, D. R. (Ed.) (2009). *CRC Handbook of Chemistry and Physics*, CD Rom (90th Edition-2010 Version). Boca Raton, FL: Taylor and Francis.
- **Hazardous Substances Data Bank (HSDB)**  
The HSDB is “comprehensive, peer-reviewed toxicology data for about 5,000 chemicals” and it is accessible online at: <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB>.
- **The Merck Index**  
O’Neil, M. J. (Ed.) (2006). *Encyclopedia of Chemicals, Drugs, and Biologicals* (14<sup>th</sup> edition). Merck Research Laboratories. Whitehouse Station, NJ.
- **SAX**  
Lewis, R. J., Sr. (2005). *Sax's Dangerous Properties of Industrial Materials* (11th Edition). New York: John Wiley & Sons.

Sometimes data on physicochemical properties varies among sources. As the physical constants presented in this table are obtained from published sources, users are advised to consult the cited references to verify the accuracy of the information.

Information on PAC values and Temporary Emergency Exposure Levels (TEELs) and links to other sources of information are provided on the Subcommittee for Consequence Assessment and Protective Action (SCAPA) webpage at: <http://orise.orau.gov/emi/scapa/teels.htm>.

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<sup>1</sup> Information on the Chemical Abstract Service and CASRN is provided at <http://info.cas.org/>.

A description of the information provided in Table 1 is listed below; it now covers three pages.

	Heading	Definition
<b>First Page in Table</b>	No.	The ordered numbering of the chemicals as they appear in this alphabetical listing
	Chemical Compound	The name of the chemical substance submitted to the PAC development team
	CAS Number (CASRN)	The Chemical Abstract Services Registry Number for this chemical
	Molecular Weight (MW)	The molecular weight of this chemical
	Units of Original Limits	This provides the units of measure (e.g., ppm, mg/m <sup>3</sup> ) that were initially used to report PAC values.
	Conc Dep	“Concentration dependent” indicates whether the chemical has any immediate effects like irritation. If so, it is concentration dependent. A “Y” indicates the chemical is concentration dependent. An “N” indicates it is not; N-chemicals are dose-dependent. This is a TEEL development parameter that is sometimes used to adjust the derived TEEL values.
	ppm to mg/m <sup>3</sup>	Conversion factor used to convert “parts per million” to “mg/m <sup>3</sup> ”
	Molecular Formula (MF)	The composition of elements for this chemical
	State at 25°C	Physical state of the chemical (S=solid, L=liquid, G=gas) at 25°C
<b>Second Page in Table</b>	No.	The ordered numbering of the chemicals as they appear in this alphabetical listing
	Chemical Compound	The name of the chemical substance submitted to the PAC development team
	CAS Number (CASRN)	The Chemical Abstract Services Registry Number for this chemical
	MP or FP (°C)	The melting point/freezing point of the chemical in °C
	BP (°C) @ 760 mm Hg unless indicated	The boiling point of the chemical in °C at 760 mm Hg unless otherwise stated
	Vapor Pressure – mm Hg	The pressure (often expressed in millimeters of mercury, mm Hg) characteristic at any given temperature of a vapor in equilibrium with its liquid or solid form
	Vapor Pressure – T (°C)	The temperature at which the vapor pressure was measured (25°C assumed if not stated)
	SG @ 25°C unless indicated	Specific Gravity (i.e., density of a substance divided by the density of water) of the chemical
	SAX HR	The health hazard rating of the chemical as specified in SAX
	LEL (ppm)	The lower explosive limit

	<b>Heading</b>	<b>Definition</b>
<b>Third Page in Table</b>	No.	The ordered numbering of the chemicals as they appear in this alphabetical listing
	Chemical Compound	The name of the chemical substance submitted to the PAC development team
	CAS Number (CASRN)	The Chemical Abstract Services Registry Number for this chemical
	PAC-TEEL Derivation/ Review/Revision Dates – Originally Derived	The date or nearest approximate date on which the PAC values were derived
	PAC-TEEL Derivation/ Review/Revision Dates – Last Reviewed	The date on which data or other information was reviewed
	PAC-TEEL Derivation/ Review/Revision Dates – Last Revised	The date on which after a review of the input data, changes were made to the data and/or PAC values (e.g., publication of new AEGL values)
	Source(s) of Data Used	A listing of where the data used for PAC or TEEL derivation was obtained (e.g., EPA for AEGL values)
	NFPA HHR	The National Fire Protection Association Health Hazard Rating