

ภาคผนวก ข13

**ข้อกำหนด *American Conference of Governmental
Industrial Hygienists Threshold Limit Values and
Biological Exposure Indices (ACGIH)***

POLICY STATEMENT ON THE USES OF TLVs® AND BEIs®

The Threshold Limit Values (TLVs®) and Biological Exposure Indices (BEIs®) are developed as guidelines to assist in the control of health hazards. These recommendations or guidelines are intended for use in the practice of industrial hygiene, to be interpreted and applied only by a person trained in this discipline. They are not developed for use as legal standards and ACGIH® does not advocate their use as such. However, it is recognized that in certain circumstances individuals or organizations may wish to make use of these recommendations or guidelines as a supplement to their occupational safety and health program. ACGIH® will not oppose their use in this manner, if the use of TLVs® and BEIs® in these instances will contribute to the overall improvement in worker protection. However, the user must recognize the constraints and limitations subject to their proper use and bear the responsibility for such use.

The Introductions to the TLV®/BEI® Book and the TLV®/BEI® Documentation provide the philosophical and practical bases for the uses and limitations of the TLVs® and BEIs®. To extend those uses of the TLVs® and BEIs® to include other applications, such as use without the judgment of an industrial hygienist, application to a different population, development of new exposure/recovery time models, or new effect endpoints, stretches the reliability and even viability of the database for the TLV® or BEI® as evidenced by the individual Documentation.

It is not appropriate for individuals or organizations to impose on the TLVs® or the BEIs® their concepts of what the TLVs® or BEIs® should be or how they should be applied or to transfer regulatory standards requirements to the TLVs® or BEIs®.

Approved by the ACGIH® Board of Directors on March 1, 1988.

Special Note to User

The values listed in this book are intended for use in the practice of industrial hygiene as guidelines or recommendations to assist in the control of potential workplace health hazards and for no other use. These values are *not* fine lines between safe and dangerous concentrations and *should not* be used by anyone untrained in the discipline of industrial hygiene. It is imperative that the user of this book read the Introduction to each section and be familiar with the Documentation of the TLVs® and BEIs® before applying the recommendations contained herein. ACGIH® disclaims liability with respect to the use of the TLVs® and BEIs®.

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TLVs® and BEIs®

Based on the Documentation of the

Threshold Limit Values

for Chemical Substances
and Physical Agents

&

Biological Exposure Indices



Signature Publications

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เลขทะเบียน 37885
วันที่ 1/พ.ค. 58
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ADOPTED VALUES

Substance [CAS No.] (Documentation date)	TWA	STEL	Notations	MW	TLV® Basis
Hexachlorobenzene [118-74-1] (1994)	0.002 mg/m ³	—	Skin; A3	284.78	Porphyrim eff; skin dam; CNS impair
Hexachlorobutadiene [87-68-3] (1979)	0.02 ppm	—	Skin; A3	260.76	Kidney dam
Hexachlorocyclopentadiene [77-47-4] (1990)	0.01 ppm	—	A4	272.75	URT irr
Hexachloroethane [67-72-1] (1990)	1 ppm	—	Skin; A3	236.74	Liver & kidney dam
Hexachloronaphthalene [1335-87-1] (1965)	0.2 mg/m ³	—	Skin	334.74	Liver dam; chloracne
Hexafluoroacetone [684-16-2] (1986)	0.1 ppm	—	Skin	166.02	Testicular & kidney dam
Hexafluoropropylene [116-15-4] (2009)	0.1 ppm	—	—	150.02	Kidney dam
* Hexahydrophthalic anhydride, all isomers [85-42-7, 13149-00-3, 14166-21-3] (2002)	—	C 0.005 mg/m ³ (PEV)	RSEN	154.17	Sens
Hexamethylene diisocyanate [822-06-0] (1985)	0.005 ppm	—	—	168.22	URT irr; resp sens
Hexamethyl phosphoramide [680-31-9] (1990)	—	—	Skin; A3	179.20	URT cancer
n-Hexane [110-54-3] (1996)	50 ppm	—	Skin; BEI	86.18	CNS impair; peripheral neuropathy; eye irr
Hexane isomers, other than n-Hexane [75-83-2, 79-29-8, 96-14-0, 107-83-5] (1979)	500 ppm	1000 ppm	—	86.17	CNS impair; URT & eye irr
1,6-Hexanediamine [124-09-4] (1990)	0.5 ppm	—	—	116.21	URT & skin irr
1-Hexene [592-41-6] (1999)	50 ppm	—	—	84.16	CNS impair

ADOPTED VALUES

Substance [CAS No.] (Documentation date)	TWA	STEL	Notations	MW	TLV® Basis
sec-Hexyl acetate [108-84-9] (1963)	50 ppm	—	—	144.21	Eye & URT irr
Hexylene glycol [107-41-5] (1974)	—	C 25 ppm	—	118.17	Eye & URT irr
Hydrazine [302-01-2] (1988)	0.01 ppm	—	Skin; A3	32.05	URT cancer
Hydrogen [1333-74-0]	Simple asphyxiant (D), see Appendix F: Minimal Oxygen Content	—	—	1.01	Asphyxia
Hydrogenated terphenyls (nonirradiated) [61788-32-7] (1990)	0.5 ppm	—	—	241.00	Liver dam
Hydrogen bromide [10035-10-6] (2001)	—	C 2 ppm	—	80.92	URT irr
Hydrogen chloride [7647-01-0] (2000)	—	C 2 ppm	A4	36.47	URT irr
Hydrogen cyanide and cyanide salts, as CN (1991)	—	—	—	—	URT irr; headache; nausea; thyroid eff
Hydrogen cyanide [74-90-8]	—	C 4.7 ppm	Skin	27.03	Eye, URT, & skin irr
Cyanide salts [143-33-9, 151-50-8, 592-01-8]	—	C 5 mg/m ³	Skin	Varies	URT & eye irr; nausea
Hydrogen fluoride [7664-39-3], as F (2004)	0.5 ppm	C 2 ppm	Skin; BEI	20.01	URT, URT, skin, & eye irr; fluorosis
Hydrogen peroxide [7722-84-1] (1990)	1 ppm	—	A3	34.02	Eye, URT, & skin irr
Hydrogen selenide [7783-07-5], as Se (1990)	0.05 ppm	—	—	80.98	URT & eye irr; nausea
Hydrogen sulfide [7783-06-4] (2009)	1 ppm	5 ppm	—	34.08	URT irr; CNS impair