

**4717.8200 TABLE OF ACUTE HRVs.**

The heading for each item contains the chemical name and, in parenthesis, the CAS RN. Each item lists the acute HRV, the equation used to develop the acute HRV, and the variables necessary for the equation. The equations used to develop the acute HRV are designated as follows:

"A" means calculating the NOAEL or LOAEL or  $BMC_{[ADJ]}$  under part 4717.8500, subpart 3, and applying the general equation under part 4717.8500, subpart 2;

"B" means calculating the  $NOAEL_{[ADJ]}$  or  $LOAEL_{[ADJ]}$  or  $BMC_{[ADJ]}$  under part 4717.8500, subpart 4, and applying the general equation under part 4717.8500, subpart 2;

"C" means calculating the BMC or  $BMC_{[ADJ]}$  under part 4717.8500; and

"D" means applying the equation under part 4717.8500, subpart 5.

The endpoint of concern is listed for use in determining a hazard index under part 4717.8600.

## TABLE OF ACUTE HRVs

## A. Ammonia (7664-41-7)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>3,200</b>
Endpoint of concern	Irritant - eye, respiratory system
Equation	C
BMC ( $\text{mg}/\text{m}^3$ )	9.5
Uncertainty factor	3

## B. Arsine (7784-42-1)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>200</b>
Endpoint of concern	Hematologic*
Equation	A
$NOAEL_{[ADJ]}$ ( $\text{mg}/\text{m}^3$ )	1.6E1
Uncertainty factor	100

## C. Benzene (71-43-2)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>1,000</b>
Endpoint of concern	Reproductive/developmental
Equation	D

NOAEL (mg/m <sup>3</sup> )	1.3E2
Uncertainty factor	100

D. Carbon disulfide (75-15-0)

Acute HRV (µg/m <sup>3</sup> )	<b>6,000</b>
Endpoint of concern	Reproductive/developmental
Equation	D
NOAEL (mg/m <sup>3</sup> )	6.2E2
Uncertainty factor	100

E. Chlorine (7882-50-5)

Acute HRV (µg/m <sup>3</sup> )	<b>290</b>
Endpoint of concern	Irritant - respiratory system
Equation	A
NOAEL (mg/m <sup>3</sup> )	2.9
Uncertainty factor	10

F. Chloroform (67-66-3)

Acute HRV (µg/m <sup>3</sup> )	<b>150</b>
Endpoint of concern	Reproductive/developmental
Equation	D
LOAEL (mg/m <sup>3</sup> )	1.5E2
Uncertainty factor	1,000

G. Dichloromethane (75-09-2)

Acute HRV (µg/m <sup>3</sup> )	<b>10,000</b>
Endpoint of concern	Nervous system
Equation	A
NOAEL <sub>[ADJ]</sub> (mg/m <sup>3</sup> )	6.8E2
Uncertainty factor	60

H. 1,4-Dioxane (123-91-1)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>3,000</b>
Endpoint of concern	Irritant - eye and nasal
Equation	A
LOAEL <sub>[ADJ]</sub> ( $\text{mg}/\text{m}^3$ )	1.8E2
Uncertainty factor	60

I. Ethyl benzene (100-41-4)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>10,000</b>
Endpoint of concern	Reproductive/developmental
Equation	D
NOAEL ( $\text{mg}/\text{m}^3$ )	4.3E2
Uncertainty factor	30

J. Ethyl chloride (75-00-3)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>100,000</b>
Endpoint of concern	Reproductive/developmental
Equation	D
NOAEL ( $\text{mg}/\text{m}^3$ )	4E3
Uncertainty factor	30

K. Ethylene glycol monoethyl ether (110-80-5)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>400</b>
Endpoint of concern	Reproductive/developmental
Equation	D
NOAEL ( $\text{mg}/\text{m}^3$ )	3.7E1
Uncertainty factor	100

L. Ethylene glycol monoethyl ether acetate (111-15-9)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>100</b>
Endpoint of concern	Reproductive/developmental
Equation	D

LOAEL (mg/m <sup>3</sup> )	1.4E2
Uncertainty factor	1,000

M. Ethylene glycol monomethyl ether (EGME) (109-86-4) or 2-methoxyethanol

Acute HRV (µg/m <sup>3</sup> )	<b>90</b>
Endpoint of concern	Reproductive/developmental
Equation	D
NOAEL (mg/m <sup>3</sup> )	9.3
Uncertainty factor	100

N. Formaldehyde (50-00-0)

Acute HRV (µg/m <sup>3</sup> )	<b>94</b>
Endpoint of concern	Irritant - eye and respiratory system
Equation	C
BMC (mg/m <sup>3</sup> )	9.4E-1
Uncertainty factor	10

O. Hydrogen chloride (7647-01-1)

Acute HRV (µg/m <sup>3</sup> )	<b>2,700</b>
Endpoint of concern	Irritant - eye and respiratory system
Equation	A
NOAEL (mg/m <sup>3</sup> )	2.7
Uncertainty factor	1

P. Hydrogen cyanide (74-90-8)

Acute HRV (µg/m <sup>3</sup> )	<b>700</b>
Endpoint of concern	Nervous system*
Equation	A
NOAEL (mg/m <sup>3</sup> )	6.8E1
Uncertainty factor	100

Q. Hydrogen fluoride (7664-39-3)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>240</b>
Endpoint of concern	Irritant - respiratory system
Equation	A
NOAEL <sub>[ADJ]</sub> ( $\text{mg}/\text{m}^3$ )	2.4
Uncertainty factor	10

R. Methanol (67-56-1)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>25,000</b>
Endpoint of concern	Nervous system
Equation	A
NOAEL <sub>[ADJ]</sub> ( $\text{mg}/\text{m}^3$ )	2.5E2
Uncertainty factor	10

S. Methyl bromide (74-83-9)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>2,000</b>
Endpoint of concern	Nervous system*
Equation	A
LOAEL <sub>[ADJ]</sub> ( $\text{mg}/\text{m}^3$ )	1.4E2
Uncertainty factor	60

T. Methyl ethyl ketone (78-93-3)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>10,000</b>
Endpoint of concern	Irritant - eye and respiratory system
Equation	A
LOAEL <sub>[ADJ]</sub> ( $\text{mg}/\text{m}^3$ )	8E2
Uncertainty factor	60

U. Nickel and nickel compounds (\*\*)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>11</b>
Endpoint of concern	Irritant - respiratory system
Equation	A

LOAEL (mg/m <sup>3</sup> )	6.7E-2
Uncertainty factor	6

V. Nitric acid (7697-37-2)

Acute HRV (µg/m <sup>3</sup> )	<b>130</b>
Endpoint of concern	Irritant - respiratory system
Equation	A
NOAEL (mg/m <sup>3</sup> )	1.29E-1
Uncertainty factor	1

W. Phenol (108-95-2)

Acute HRV (µg/m <sup>3</sup> )	<b>5,800</b>
Endpoint of concern	Irritant - eye and respiratory system
Equation	B
NOAEL <sub>[ADJ]</sub> (mg/m <sup>3</sup> )	5.8E1
Uncertainty factor	10

X. Phosgene (75-44-5)

Acute HRV (µg/m <sup>3</sup> )	<b>4</b>
Endpoint of concern	Irritant - respiratory system*
Equation	A
NOAEL <sub>[ADJ]</sub> (mg/m <sup>3</sup> )	4E-1
Uncertainty factor	100

Y. Sodium hydroxide (1310-93-2)

Acute HRV (µg/m <sup>3</sup> )	<b>8</b>
Endpoint of concern	Irritant - eye, skin, and respiratory system
Equation	A
LOAEL <sub>[ADJ]</sub> (mg/m <sup>3</sup> )	5E-1
Uncertainty factor	60

Z. Styrene (100-42-5)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>21,000</b>
Endpoint of concern	Irritant - eye and respiratory system
Equation	A
NOAEL <sub>[ADJ]</sub> ( $\text{mg}/\text{m}^3$ )	2.1E2
Uncertainty factor	10

AA. Tetrachloroethylene or perchlorethylene (127-18-4)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>20,000</b>
Endpoint of concern	Irritant - eye and respiratory and nervous systems
Equation	B
LOAEL <sub>[ADJ]</sub> ( $\text{mg}/\text{m}^3$ )	1.2E3
Uncertainty factor	60

BB. Toluene (108-88-3)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>37,000</b>
Endpoint of concern	Irritant - eye and respiratory and nervous systems
Equation	B
NOAEL <sub>[ADJ]</sub> ( $\text{mg}/\text{m}^3$ )	3.7E2
Uncertainty factor	10

CC. 1,1,1-Trichloroethane or methyl chloroform (71-55-6)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>140,000</b>
Endpoint of concern	Nervous system
Equation	A
NOAEL ( $\text{mg}/\text{m}^3$ )	1.37E3
Uncertainty factor	10

DD. Trichloroethylene (79-01-6)

Acute HRV ( $\mu\text{g}/\text{m}^3$ )	<b>2,000</b>
Endpoint of concern	Reproductive/developmental

Equation	D
LOAEL (mg/m <sup>3</sup> )	5.4E2
Uncertainty factor	300
EE. Triethylamine (121-44-8)	
Acute HRV (µg/m <sup>3</sup> )	<b>2,800</b>
Endpoint of concern	Irritant - eye; transient corneal edema
Equation	B
NOAEL <sub>[ADJ]</sub> (mg/m <sup>3</sup> )	2.8E1
Uncertainty factor	10
FF. Vanadium pentoxide (1314-62-1)	
Acute HRV (µg/m <sup>3</sup> )	<b>30</b>
Endpoint of concern	Irritant - respiratory system
Equation	B
LOAEL <sub>[ADJ]</sub> (mg/m <sup>3</sup> )	3E-1
Uncertainty factor	10
GG. Xylenes (1330-20-7)	
Acute HRV (µg/m <sup>3</sup> )	<b>43,000</b>
Endpoint of concern	Irritant - eye and respiratory and nervous systems
Equation	A
NOAEL (mg/m <sup>3</sup> )	4.3E2
Uncertainty factor	10

\* This HRV is for a chemical where there is little magnitude difference between the level where mild irritancy occurs and levels where more severe adverse health effects occur.

\*\* This HRV is for a chemical mixture which, therefore, does not have a chemical-specific number assigned by the Chemical Abstracts Service.

**Statutory Authority:** *MS s 144.12*

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