

Carex: Definition of Agents

26-Mar-99

ABPH 4-Aminobiphenyl

Procedure LONG

Abbreviation 4-Aminobiphenyl

CAS 92-67-1

IARC Group: 1

Occurrence

OCCU

Definitio Inhalatory or dermal exposure at work to 4-aminobiphenyl probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL, SKIN *** Belgium 1987, TWA ?STEL, SKIN *** Germany 1987, TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 1987, TWA ?STEL, SKIN *** Finland 1996 aminobiphenyl TWA 10 mg/m3 STEL 20 mg/m3 *** France 1995, TWA 0.007 mg/m3, STEL *** Great Britain 1987, TWA 2 mg/m3, STEL 4 mg/m3 *** Greece 19?? ?TWA ?STEL *** Ireland 1987, TWA 2 mg/m3, STEL 4 mg/m3 *** Italy 19?? ?TWA ?STEL, SKIN *** Luxemburg 1987, TWA ?STEL *** The Netherlands 1986, TWA ?STEL, SKIN *** Portugal 1987, TWA ?STEL, SKIN *** Sweden 1988, TWA ?STEL *** USA: ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average VALUE MISSING, 15min short term exposure limit VALUE MISSING, Notations: A1 Confirmed Human Carcinogen, and Skin referring to the potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 1, Lyon, France

ACAM Acrylamide	Procedure	LONG
Abbreviation Acrylamide		
CAS 79-06-1	IARC Group: 2A	Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to acrylamide probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA 0.3 mg/m3, STEL 0.6 mg/m3, SKIN**** Belgium 1987, TWA 0.3 mg/m3, STEL 0.6 mg/m3, SKIN *** Germany 1987, TWA ?STEL, SKIN *** Denmark 1985, TWA 0.3 mg/m3, STEL, SKIN**** Spain 1987, TWA 0.3 mg/m3, STEL, SKIN *** Finland 1996 TWA 0.3 mg/m3, STEL 0.9 mg/m3, SKIN *** France 1995, TWA 0.3 mg/m3, STEL *** Great Britain 1987, TWA 0.3 mg/m3, STEL 0.6 mg/m3, SKIN *** Greece 19?? ?TWA ?STEL *** Ireland 1987, TWA 0.3 mg/m3, STEL, SKIN *** Italy 1987, TWA 0.3 mg/m3, STEL, SKIN *** Luxemburg 1987, TWA ?STEL *** The Netherlands 19?? ?TWA 0.3 mg/m3, STEL, SKIN**** Portugal 1987, TWA 0.3 mg/m3, STEL, SKIN *** Sweden 1988, TWA 0.3 mg/m3, STEL 0.9 mg/m3, SKIN**** USA: ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 30 ug/m3, 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen, and Skin referring to the potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 60, Lyon, France

ACID Strong-inorganic-acid mists containing sulfuric acid (occup. exp. to) Procedure LONG

Abbreviation Sulfuric acid mist

CAS 7664-93-9 IARC Group: 1 Occurrence OCCU

Definitio Inhalatory exposure at work to sulphuric acid mist likely to exceed significantly the nonoccupational background level due to 'acid mist' (usually below 0.1 mg/m³, mainly as sulphur dioxide and sulphurous acid in ambient air).

Unit: mg/m³ milligrams of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA 1 mg/m³, STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA 1 mg/m³, STEL 2 mg/m³, *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 1 mg/m³, STEL 3 mg/m³,*** France 1995 TWA 1 mg/m³ STEL 3 mg/m³ *** Great Britain 19?? ?TWA 1 mg/m³, STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA 1 mg/m³, STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA 1 mg/m³, STEL 3 mg/m³. *** ACGIH Threshold Limit Values in 1995-6 for sulfuric acid: 8hour time weighted average 1 mg/m³, 15min short term exposure limit 3 mg/m³, Notations: NONE

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 54, Lyon, France

ACNI Acrylonitrile

Procedure LONG

Abbreviation Acrylonitrile

CAS 107-13-1 IARC Group: 2B Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to acrylonitrile probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ppm parts per million of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA 4.5 mg /m3 (2 PPM), STEL, SKIN *** Belgium 1987, TWA 4.5 mg/m3 (2 ppm), STEL, SKIN *** Germany 1987, TWA 7 mg/m3 (3 ppm), STEL *** Denmark 1985, TWA 4 mg/m3, STEL, SKIN*** Spain 1987, TWA 4.5 mg/m3 (2 ppm), STEL, SKIN *** Finland 1996 TWA 2ppm, STEL 4 ppm, SKIN *** France 1995, TWA 2 ppm STEL 15 ppm *** Great Britain 1987, TWA 4 mg/m3 (2 ppm), STEL, SKIN *** Greece 1986, TWA 4.5 mg/m3 (2 ppm), STEL *** Ireland 1987, TWA 4 mg/m3, STEL, SKIN *** Italy 1987, TWA 4.5 mg/m3 (2 ppm), STEL, SKIN *** Luxemburg 1987, TWA STEL, SKIN*** The Netherlands 19? TWA 9 mg/m3 (4 ppm) STEL 22 mg/m3 (10 ppm), SKIN*** Portugal 1986, TWA 4.5 mg/m3 (2 ppm), STEL, SKIN *** Sweden 1988, TWA 4.5 mg/m3 (2 ppm), STEL 13 mg/m3 (6 ppm), SKIN *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 2 ppm, 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen, and Skin referring to the potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 19, Lyon, France

ADRI Adriamycin

Procedure LONG

Abbreviation Adriamycin

CAS 23214-92- IARC Group: 2A Occurrence MEDI

Definitio Inhalatory exposure at work to adriamycin probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 10, Lyon, France

AFLA Aflatoxins Procedure LONG
Abbreviation Aflatoxins

CAS 1402-68-2 IARC Group: 1 Occurrence DIET

Definitio Inhalatory exposure at work to aflatoxins probably exceeding nonoccupational exposure (assumed to be nil for this agent by inhalatory route).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19??
?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL ***
Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19??
?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL ***
Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands
19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA
?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 56, Lyon, France

AL Aluminium production Procedure CIRC
Abbreviation Aluminium production

CAS IARC Group: 1 Occurrence ECIR

Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as polycyclic aromatic hydrocarbons (PAH)

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19??
?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL ***
Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19??
?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL ***
Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands
19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA
?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 34, Lyon, France.

ALCO Alcoholic beverages**Procedure** NONE**Abbreviation** Alcoholic beverages**CAS** **IARC Group:** 1 **Occurrence** DIET**Definitio** A lifestyle/dietary exposure which is outside the established concept of occupational exposure. Includes spirits, wines, beers etc. The number of workers occupationally exposed is zero in every country.**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 44, Lyon, France**ANAL Analgesic mixtures containing phenacetin (see Phenacetin)****Procedure** NONE**Abbreviation** Phenacetin mixtures**CAS** **IARC Group:** 1 **Occurrence** MEDI**Definitio** Exposure at work to analgesic mixtures containing phenacetin is similar as for phenacetin (see phenacetin)**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France

ANST	Androgenic (anabolic) steroids	Procedure	LONG
Abbreviation	Androgenic steroids		
CAS	IARC Group: 2A	Occurrence	MEDI
Definitio	Inhalatory exposure at work to androgenic steroids probably exceeding nonoccupational exposure (assumed to be nil for this agent).		
Unit:	-		
TLV:	Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED		
Reference	International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France		

AS	Arsenic and arsenic compounds	Procedure	LONG
Abbreviation	Arsenic and its compounds		
CAS	IARC Group: 1	Occurrence	OCCU
Definitio	Inhalatory exposure at work to arsenic or arsenic compounds (eg, arsenic trioxide, arsenic pentoxide, arsenates, arsine) likely to exceed significantly the nonoccupational background level due to air pollution (usually below 0.1 ug/m3).		
Unit:	ug/m3 micrograms of agent as arsenic in cubic meter of workroom air		
TLV:	Austria 19?? ?TWA 0.2mg/m3, STEL *** Belgium 1987, TWA 0.2 mg/m3, STEL *** Germany 19?? ?TWA ?STEL *** Denmark 1985, TWA 0.05 mg/m3, STEL *** Spain 1987, TWA 0.2 mg/m3, STEL *** Finland 1996 TWA 0.01 mg/m3, STEL *** France 1995, TWA 0.2 mg/m3, STEL *** Great Britain 19?? ?TWA 0.2 mg/m3, STEL *** Greece 1986, TWA 0.5 mg/m3, STEL *** Ireland 1987, TWA 0.2 mg/m3, STEL *** Italy 1987, TWA 0.2 mg/m3, STEL *** Luxemburg 1987, TWA ?STEL *** The Netherlands 1986, TWA 0.5 mg/m3, STEL *** Portugal 1987, TWA 0.2 mg/m3, STEL *** Sweden 1988, TWA 0.03 mg as/m3, STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 10 ug/m3 (160 ug/m3 for arsine), 15min short term exposure limit VALUE MISSING, Notations: A1 Confirmed Human Carcinogen		
Reference	International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 23, Lyon, France		

ASB Asbestos	Procedure	LONG
Abbreviation Asbestos		
CAS 1332-21-4	IARC Group: 1	Occurrence OCCU
Definitio Inhalatory exposure at work to any form of asbestos (eg, chrysotile, crocidolite, tremolite, anthophyllite, actinolite, amosite) likely to exceed significantly the nonoccupational background level in dwellings or urban air (usually below 0.001 f/cm3).		
Unit: f/cm3 asbestos fibers (length >5um, diameter <3um, aspect ratio at least 3:1) in cubic centimeter of workroom air		
TLV: EU 1987 TWA 0.5 f/ml (crocidolite) 1 f/ml (other forms) Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 1982, TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 0.3 fibres/ml *** France 1995 TWA 0.6f/ml (chrysotile), 0.3f/ml (other types) *** Great Britain 19?? TWA-4h 0.2f/ml (crocidolite,amosite), 0.5f/ml (other types) *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 1987 STEL 0.2 f/ml (crocidolite), TWA-4h 2 f/ml (other forms) *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA 0.2 f/ml STEL *** ACGIH Threshold Limit Values in 1995-6: 0.2 f/cm3 for crocidolite, 0.5 f/cm3 for amosite, 2 f/cm2 for chrysotile and other forms of asbestos, Intended change: 0.2 f/cm3 for all forms. Notations: A1 Confirmed Human Carcinogen		
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 14, Lyon, France		

AURA Auramine, (manufacture of)	Procedure	CIRC
Abbreviation Manufacture of auramine		
CAS	IARC Group: 1	Occurrence ECIR
Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as some aromatic amines including 2-naphthylamine.		
Unit: -		
TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED		
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France		

AZAC Azacitidine**Procedure** LONG**Abbreviation** Azacitidine**CAS** 320-67-2 **IARC Group:** 2A **Occurrence** MEDI**Definitio** Inhalatory exposure at work to azacitidine probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 50, Lyon, France**AZAT Azathioprine****Procedure** LONG**Abbreviation** Azathioprine**CAS** 446-86-6 **IARC Group:** 1 **Occurrence** MEDI**Definitio** Inhalatory exposure at work to azathioprine probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 1987, TWA 0.1 mg/m3, STEL, SKIN *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 26, Lyon, France

BAA Benz(a)anthracene (see PAHs)**Procedure** PAH**Abbreviation** Benz(a)anthracene**CAS** 56-55-3 **IARC Group:** 2A **Occurrence** OCCU**Definitio** Exposure at work to benz(a)anthracene is included in occupational exposure to polycyclic aromatic hydrocarbons (see PAH)**Unit:** ug/m3 micrograms of agent as arsenic in cubic meter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED. Notations: A2 Suspected Human Carcinogen**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 32, Lyon, France**BAP Benzo(a)pyrene (see PAHs)****Procedure** PAH**Abbreviation** Benzo(a)pyrene**CAS** 50-32-8 **IARC Group:** 2A **Occurrence** OCCU**Definitio** Exposure at work to benzo(a)pyrene is included in occupational exposure to polycyclic aromatic hydrocarbons (see PAH)**Unit:** ug/m3 micrograms of agent as arsenic in cubic meter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 1985, TWA ?STEL *** Spain 1987, TWA ?STEL *** Finland 1996 TWA 0.01 mg/m3, STEL, SKIN *** France 1987, TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 1987, TWA ?STEL *** Italy 1987, TWA ?STEL *** Luxemburg 1987, TWA ?STEL *** The Netherlands 1986, TWA ?STEL, skin *** Portugal 1987, TWA ?STEL *** Sweden 1988, TWA 0.005 mg/m3, STEL 0.03 mg/m3, skin *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED. Notations: A2 Suspected Human Carcinogen**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 32, Lyon, France

BCME Bis(chloromethyl)ether and chloromethyl methyl ether (techn. grade) Procedure LONG

Abbreviation Bis(chloromethyl)ether

CAS 542-88-1 IARC Group: 1 Occurrence OCCU

Definitio Inhalatory exposure at work to bis(chloromethyl)ether or technical chloromethyl methyl ether probably exceeding nonoccupational exposure (assumed to be nil for these agents).

Unit: ppm parts per million of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 0.001 ppm STEL 0.003 ppm *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 0.001 ppm, 15min short term exposure limit VALUE MISSING, Notations: A1 Confirmed Human Carcinogen

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 4, Lyon, France

BCNU Bischloroethyl nitrosoarea (BCNU) Procedure LONG

Abbreviation BCNU

CAS 154-93-8 IARC Group: 2A Occurrence MEDI

Definitio Inhalatory or dermal exposure at work to bischloroethyl nitrosoarea probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 9, Lyon, France

BD LONG	1,3-Butadiene	Procedure
Abbreviation 1,3-Butadiene		
CAS 106-99-0	IARC Group: 2A	Occurrence OCCU
Definitio Inhalatory exposure at work to 1,3-butadiene likely to exceed significantly the nonoccupational background level in urban air (usually below 0.01 ppm)		
Unit: ppm parts per million of agent in cubic meter of workroom air		
TLV: Austria 19?? ?TWA 2200 mg/m3, STEL 2750 mg/m3 (1250 ppm) *** Belgium 19?? ?TWA 22 mg/m3 (10 ppm), STEL *** Germany 19?? ?TWA ?STEL *** Denmark 1985, TWA 2200 mg/m3 (1000 ppm), STEL *** Spain 1987, TWA 22 mg/m3 (10 ppm), STEL *** Finland 1996 TWA 1 ppm, STEL -*** France 1995 ?TWA ?STEL *** Great Britain 19?? ?TWA 2200 mg/m3 (1000 ppm), STEL 2750 mg/m3 (1250 ppm) *** Greece 19?? ?TWA ?STEL *** Ireland 1987 TWA 2200 mg/m3 (1000 ppm), STEL 2750 mg/m3 (1250 ppm) *** Italy 19?? TWA 22 mg/m3 (10 ppm) STEL *** Luxemburg 1987 TWA ?STEL *** The Netherlands 19?? TWA 110 mg/m3 (50 ppm), STEL *** Portugal 1987, TWA 22 mg/m3 (10 ppm), STEL *** Sweden 1988, TWA 20 mg/m3 (10 ppm), STEL 40 mg/m3 (20 ppm) *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 2 ppm, 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen		
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 54, Lyon, France		

BDYE	Benzidine-based dyes	Procedure	LONG
Abbreviation Benzidine-based dyes			
CAS	IARC Group: 2A	Occurrence	OCCU
Definitio Inhalatory or dermal exposure at work to benzidine-based dyes (eg, Direct Black 38, Direct Blue 6, Direct Brown 95, Direct Red 28, Evans Blue, Trypan Blue) probably exceeding nonoccupational exposure (assumed to be nil for these agents).			
Unit: -			
TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED			
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France			

BE
LONG

Beryllium and beryllium compounds Procedure

Abbreviation Beryllium and its compounds

CAS 7440-41-7

IARC Group: 1

Occurrence

OCCU

Definitio Inhalatory exposure at work to beryllium, beryllium alloys (with aluminum, copper or nickel) or beryllium compounds (eg, beryllium oxide, beryl ore, bertrandite ore) probably exceeding nonoccupational exposure (assumed to be nil for these agents).

Unit: ug/m3 micrograms of agent as beryllium in cubic meter of workroom air

TLV: Austria 19?? ?TWA 0.002 mg/m3, STEL *** Belgium 19?? TWA 0.002 mg/m3, STEL *** Germany 19?? ?TWA, STEL *** Denmark 1985, TWA 0.001 mg/m3 , STEL *** Spain 1987, TWA 0.002 mg/m3, STEL *** Finland 1996 TWA 0.001 mg/m3, STEL - *** France 1995, TWA 0.002 mg/m3, STEL- *** Great Britain 19?? ?TWA 0.002 mg/m3, STEL *** Greece 19?? ?TWA ?STEL *** Ireland 1987, TWA 0.002 mg/m3, STEL *** Italy 19?? ?TWA 0.002 mg/m3, STEL *** Luxemburg 1987, TWA ?STEL *** The Netherlands 19?? ?TWA 0.002 mg/m3, STEL*** Portugal 1987, TWA 0.002 mg/m3, STEL *** Sweden 1988, TWA 0.002 mg/m3 ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 2 ug/m3, 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 58, Lyon, France

BENZ Benzene	Procedure	LONG
Abbreviation Benzene		
CAS 71-43-2	IARC Group: 1	Occurrence OCCU
Definitio Inhalatory or dermal exposure at work to benzene likely to exceed significantly the nonoccupational exposure due to inhaling urban air or due to filling in gasoline stations (long-term exposure usually below 0.01 ppm).		
Unit: ppm parts per million of agent in cubic meter of workroom air		
TLV: Austria 19?? TWA 30 mg/m3 (10 ppm), STEL 75 mg/m3 (25 ppm)*** Belgium 19?? TWA 30 mg/m3 (10 ppm), STEL *** Germany 19?? TWA 16 MG/M3 (5 PPM) STEL *** Denmark 1985, TWA 16 mg/m3 (5 ppm), STEL *** Spain 1987, TWA 30 mg/m3 (10 ppm), STEL *** Finland 1996 TWA 16 mg/m3 (5 ppm), STEL 30 mg/m3 (10 ppm), SKIN *** France 1995, TWA 16 mg/m3 (5 ppm), STEL *** Great Britain 19?? ?TWA 30 mg/m3 (10 ppm), STEL *** Greece 19?? ?TWA ?STEL *** Ireland 1987, TWA 30 mg/m3 (10 ppm), STEL *** Italy 19?? ?TWA 30 mg/m3 (10 ppm), STEL *** Luxemburg 1987, TWA ?STEL *** The Netherlands 19?? ?TWA 30 mg/m3 (10 ppm), STEL skin*** Portugal 1987, TWA 30 mg/3 (10 ppm), STEL *** Sweden 1988, TWA 16 mg/m3 (5 ppm), STEL 30mg/m3 (10 ppm), skin*** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 10 ppm (0.3 ppm intended), 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen, Skin notation intended.		
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 29, Lyon, France		

BETE Betel quid with tobacco	Procedure	NONE
Abbreviation Betel quid with tobacco		
CAS	IARC Group: 1	Occurrence DIET
Definitio A lifestyle exposure which is outside the established concept of occupational exposure. Betel quid contains usually betel leaf, areca nut, slaked lime and tobacco. The number of workers occupationally exposed is zero in every country.		
Unit: -		
TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED		
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 37, Lyon, France		

BNAP 2-Naphthylamine**Procedure** LONG**Abbreviation** 2-Naphthylamine**CAS** 91-59-8**IARC Group:** 1**Occurrence**

OCCU

Definitio Inhalatory or dermal exposure at work to 2-naphthylamine probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** ug/m3 micrograms of agent in cubic meter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA 0.005 mg/m3 STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED. Notations: A1 Confirmed Human Carcinogen**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 4, Lyon, France**BOOT Boot and shoe manufacture and repair****Procedure** CIRC**Abbreviation** Boot and shoe manuf. and repair**CAS****IARC Group:** 1**Occurrence**

ECIR

Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as benzene, methylene chloride or leather dyes.**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC). Wood, Leather and Some Associated Industries IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Volume 25. Lyon 1981.

CAPT Captafol	Procedure	LONG
Abbreviation Captafol		
CAS 2425-06-1	IARC Group: 2A	Occurrence OCCU
Definitio Inhalatory or dermal exposure at work to captafol probably exceeding nonoccupational exposure (assumed to be nil for this agent).		
Unit: ug/m3 micrograms of agent in cubic meter of workroom air		
TLV: Austria 19?? ?TWA 0.1 mg/m3, STEL, SKIN *** Belgium 1987, TWA 0.1 mg/m3, STEL, SKIN*** Germany 19?? ?TWA ?STEL *** Denmark 1985, TWA 0.1 mg/m3, STEL *** Spain 1987, TWA 0.1 mg/m3, STEL, SKIN *** Finland 1996 TWA-STEL- *** France 1995, TWA 0.1 mg/m3, STEL, SKIN *** Great Britain 1987, TWA 0.1 mg/m3, STEL, SKIN *** Greece 19?? ?TWA ?STEL *** Ireland 1987, TWA 0.1 mg/m3, STEL, SKIN *** Italy 1987, TWA 0.1 mg/m3, STEL, SKIN *** Luxemburg 1987, TWA 0.1 mg/m3, STEL, SKIN *** The Netherlands 1986, TWA 0.1 mg/m3, STEL, SKIN *** Portugal 1987, TWA 0.1 mg/m3, STEL, SKIN *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 100 ug/m3, 15min short term exposure limit VALUE MISSING, Notations: Skin referring to the potential significant exposure by the cutaneous route		
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 53, Lyon, France		

CCL4 Carbon tetrachloride	Procedure	LONG
Abbreviation Carbon tetrachloride		
CAS	IARC Group: 2B	Occurrence OCCU
Definitio Inhalatory or dermal exposure at work to carbon tetrachloride probably exceeding nonoccupational exposure (assumed to be nil for this agent).		
Unit: ppm parts per million of agent in cubic meter of workroom air		
TLV: Austria 19?? TWA 30 mg/m3 (5 ppm), STEL 125 mg/m3 (20 ppm)*** Belgium 1987, TWA 30 mg/m3 (5 ppm), STEL, SKIN*** Germany 1987, TWA 65 mg/m3 (10 ppm), STEL 130 mg/m3 (20 ppm), SKIN*** Denmark 1985, TWA 13 mg/m3, STEL, SKIN*** Spain 1987, TWA 30 mg/m3 (5 ppm), STEL, SKIN*** Finland 1996 TWA 5 ppm, STEL 10 ppm, SKIN*** France 1987, TWA 2 ppm, STEL 10 ppm*** Great Britain 1987, TWA 65 mg/m3 (10 ppm), STEL 130 mg/m3 (20 ppm), SKIN*** Greece 1986, TWA 65 mg/m3 (10 ppm), STEL, SKIN*** Ireland 1987, TWA 10 ppm, STEL 20 ppm, SKIN*** Italy 1987, TWA 30 mg/m3 (5 ppm), STEL, SKIN *** Luxemburg 1987, TWA 65 mg/m3 (10 ppm), STEL, SKIN *** The Netherlands 1986, TWA 12.6 mg/m3 (2 ppm), STEL, SKIN *** Portugal 1987, TWA 30 mg/m3 (5 ppm), STEL, SKIN *** Sweden 1988, TWA 13 mg/m3 (2 ppm), STEL 19 mg/m3 (3 ppm), SKIN*** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 5 ppm, 15min short term exposure limit 10 ppm, Notations: A3 Animal Carcinogen, and Skin referring to the potential significant exposure by the cutaneous route		
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 20, Lyon, France		

CCNU 1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)	Procedure	LONG
Abbreviation CCNU		
CAS 13010-47-	IARC Group: 2A	Occurrence MEDI
Definitio Inhalatory or dermal exposure at work to CCNU probably exceeding nonoccupational exposure (assumed to be nil for this agent).		
Unit: - -		
TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED		
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 26, Lyon, France		

CD

LONG

Cadmium and cadmium compounds Procedure**Abbreviation** Cadmium and its compounds**CAS** 7440-43-9**IARC Group:** 1**Occurrence**

OCCU

Definitio Inhalatory exposure at work to cadmium, cadmium alloys or cadmium compounds (cadmium oxide, cadmium chromate and other cadmium pigments) likely to exceed significantly the nonoccupational background level due to air pollution (usually below 0.1 ug/m3).

Unit: ug/m3 micrograms of agent as cadmium in cubic meter of workroom air

TLV: Austria 19?? ?TWA 0.05 mg/m3, STEL 0.2 mg/m3 *** Belgium 1987, TWA 0.05 mg/m3, STEL *** Germany 19?? ?TWA ?STEL *** Denmark 1985, TWA 0.01 mg/m3, STEL *** Spain 1987, TWA 0.05 mg/m3, STEL *** Finland 1996 TWA 0.02 mg/m3, STEL *** France 1995 TWA 0.05 mg/m3 STEL *** Great Britain 1987, TWA 0.05 mg/m3, STEL *** Greece 1986, TWA 0.2 mg/m3, STEL 0.2 mg/m3 *** Ireland 1987, TWA 0.05 mg/m3, STEL *** Italy 1987, TWA 0.05 mg/m3 ?STEL *** Luxemburg 1987, TWA ?STEL *** The Netherlands 1986, TWA 0.02 mg/m3, STEL 0.1 mg/m3*** Portugal 1987, TWA 0.05 mg/m3?STEL *** Sweden 1988, TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 10 ug/m3 (in total dust) and 2 ug/m3 (in respirable dust), 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 58, Lyon, France

CERF Ceramic fibers**Procedure** LONG**Abbreviation** Ceramic fibers**CAS** **IARC Group:** 2B **Occurrence** OCCU**Definitio** Inhalatory exposure at work to synthetic ceramic fibers (eg, Fiberfrax, Fibermax, Alumina, Zirconia, fireline ceramic, Nextel) made of alumina Al₂O₃, silica dioxide SiO₂ or other metal oxides (eg, ZrO₂) or, less commonly of silicon carbide probably exceeding nonoccupational exposure (assumed to be nil for this agent). Does not include glasswool, rockwool or slagwool**Unit:** f/cm³ ceramic fibers (length >5µm, diameter <3µm, aspect ratio at least 3:1) in cubic centimeter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA 1f/cm³ STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 43, Lyon, France**CGAS Coal gasification (see PAH)****Procedure** PAH**Abbreviation** Coal gasification**CAS** **IARC Group:** 1 **Occurrence** ECIR**Definitio** A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as polycyclic aromatic hydrocarbons (PAH), aromatic amines, asbestos, silica and arsenic, nickel and cadmium compounds. Occupational exposure in town gas retorts and other coal gasification plants is included in the assessment of PAHs (see PAH)**Unit:** -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 34, Lyon, France.

CHAM Chlorambucil**Procedure** LONG**Abbreviation** Chlorambucil**CAS** 305-03-3 **IARC Group:** 1 **Occurrence** MEDI**Definitio** Inhalatory or dermal exposure at work to chlorambucil probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 26, Lyon, France**CICL Ciclosporin****Procedure** LONG**Abbreviation** Ciclosporin**CAS** 79217-60- **IARC Group:** 1 **Occurrence** MEDI**Definitio** Inhalatory exposure at work to cyclosporin probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 50, Lyon, France

CISP Cisplatin **Procedure** LONG

Abbreviation Cisplatin

CAS 15663-27- **IARC Group:** 2A **Occurrence** MEDI

Definitio Inhalatory or dermal exposure at work to cisplatin probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 26, Lyon, France

CLON Clonorchis sinensis (infection with) **Procedure** SHORT

Abbreviation Clonorchis sinensis

CAS **IARC Group:** 2A **Occurrence** INFE

Definitio Handling of raw food (fish mainly) infected by clonorchis sinensis -liver flukes (parasitic trematode worms) at work. Clonorchis sinensis occurs mainly in Africa, China and southeastern Asia but is very rare elsewhere.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 61, Lyon, France

CNAP N,N-Bis(2-chloroethyl)-2-naphthylamine (Chlornaphazine) Procedure LONG

Abbreviation Chlornaphazine

CAS 494-03-1 **IARC Group:** 1 **Occurrence** MEDI

Definitio Inhalatory or dermal exposure at work to N,N-Bis(2-chloroethyl)-2-naphthylamine (Chlornaphazine) probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 4, Lyon, France

COB Cobalt and its compounds Procedure LONG

Abbreviation Cobalt and its compounds

CAS **IARC Group:** 2B **Occurrence** OCCU

Definitio Inhalatory exposure at work to cobalt, cobalt alloys (eg, stellite, vitallium, Alnico, 'hard metal') or cobalt compounds (eg, cobalt oxide, cobalt naphthenate) likely to exceed significantly the nonoccupational background level due to air pollution (usually below 0.1 ug/m3).

Unit: ug/m3 micrograms of agent as cobalt in cubic meter of workroom air

TLV: Austria 19?? ?TWA 0.1 mg/m3, STEL *** Belgium 1987, TWA 0.1 mg/m3, STEL *** Germany 1987, TWA ?STEL *** Denmark 1985, TWA 0.05 mg/m3, STEL *** Spain 1987, TWA 0.1 mg/m3 ?STEL *** Finland 1996 TWA 0.05 mg/m3, STEL *** France 1995 cobalt carbonyl TWA 0.1 mg/m3 STEL *** Great Britain 1987, TWA 0.1 mg/m3, STEL *** Greece 19?? ?TWA ?STEL *** Ireland 1987, TWA 0.1 mg/m3, STEL *** Italy 1987, TWA 0.1 mg/m3, STEL *** Luxemburg 1987, TWA 0.1 mg/m3, STEL *** The Netherlands 1986, TWA 0.1 mg/m3, STEL *** Portugal 1987, 0.1 mg/m3TWA ?STEL *** Sweden 1988, TWA 0.05 mg/m3, STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 20 ug/m3, 15min short term exposure limit VALUE MISSING, Notations: A3 Animal Carcinogen

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 52, Lyon, France

COKE Coke production (see PAH)

Procedure PAH

Abbreviation Coke production

CAS IARC Group: 1 Occurrence ECIR

Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as polycyclic aromatic hydrocarbons (PAH). Occupational exposure included in the assessment of PAHs (see PAH).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL-*** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 34, Lyon, France.

CR6 Chromium VI compounds

Procedure LONG

Abbreviation Chromium VI compounds

CAS MANY IARC Group: 1 Occurrence OCCU

Definitio Inhalatory exposure at work to chromium(VI) compounds (eg, chromium trioxide, chromic acid, chromates and dichromates) likely to exceed significantly the nonoccupational background level due to air pollution (usually <0.1 ug/m3).

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA 0.5 mg/m3, STEL *** Belgium 19?? ?TWA 0.05 mg/m3 STEL *** Germany 1987, TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 0.05 mg/m3 STEL *** France 1995 TWA 0.05 mg/m3 STEL *** Great Britain 1997 TWA 0.05 mg/m3 STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? TWA 0.05 mg/m3 STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? TWA 0.05 mg/m3 STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA ?STEL? *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 10 ug/m3 (insoluble compounds) and 50 ug/m3 (water soluble compounds), 15min short term exposure limit VALUE MISSING, Notations: A1 Confirmed Human Carcinogen

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 49, Lyon, France

CREO Creosotes (see PAHs)

Procedure PAH

Abbreviation Creosotes

CAS 8001-58-9 **IARC Group:** 2A **Occurrence** OCCU

Definitio Exposure at work to creosotes (distillation products of coal) is included in occupational exposure to polycyclic aromatic hydrocarbons (see PAH)

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 19?? ?TWA ?STEL *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 35, Lyon, France

CTAP Coal-tar pitches (see PAHs)

Procedure PAH

Abbreviation Coal-tar pitches

CAS 65996-93- **IARC Group:** 1 **Occurrence** OCCU

Definitio Exposure at work to coal-tar pitches is included in occupational exposure to polycyclic aromatic hydrocarbons (see PAH)

Unit: ug/m3 micrograms of agent soluble to benzene in cubic meter of workroom air

TLV: Austria 19?? ?TWA 0.2 mg/m3, STEL *** Belgium 19?? ?TWA 0.2 mg/m3 (in flying particles), STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? TWA 0.2 mg/m3 (benzene-soluble volatiles), STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? TWA 0.2 mg/m3 STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? TWA 0.2 mg/m3 (benzene soluble), STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6 for coal tar pitch volatiles: 8hour time weighted average 200 ug/m3 (as benzene soluble), 15min short term exposure limit VALUE MISSING, Notations: A1 Confirmed Human Carcinogen

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 35, Lyon, France

CTAR Coal-tars (see PAHs)**Procedure** PAH**Abbreviation** Coal-tars**CAS** 8007-45-2**IARC Group:** 1**Occurrence** OCCU**Definitio** Exposure at work to coal tars is included in occupational exposure to polycyclic aromatic hydrocarbons (see PAH)**Unit:** - -**TLV:** Austria 19?? ?TWA 0.2 mg/m³, STEL *** Belgium 19?? ?TWA 0.2 mg/m³ (in flying particles), STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? TWA 0.2 mg/m³ (benzene-soluble volatiles), STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? TWA 0.2 mg/m³ STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? TWA 0.2 mg/m³ (benzene soluble), STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 35, Lyon, France**CYPH Cyclophosphamide****Procedure** LONG**Abbreviation** Cyclophosphamide**CAS** 50-18-0**IARC Group:** 1**Occurrence** MEDI**Definitio** Inhalatory or dermal exposure at work to cyclophosphamide probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** ug/m³ micrograms of agent in cubic meter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 26, Lyon, France

CZOT Chlorozotocin**Procedure** LONG**Abbreviation** Chlorozotocin**CAS** 54749-90- **IARC Group:** 2A **Occurrence** MEDI**Definitio** Inhalatory exposure at work to chlorozotocin probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** ug/m3 micrograms of agent in cubic meter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 50, Lyon, France**DBA Dibenz[a,h]anthracene (see PAHs)****Procedure** PAH**Abbreviation** Dibenz[a,h]anthracene**CAS** 53-70-3 **IARC Group:** 2A **Occurrence** OCCU**Definitio** Exposure at work to dibenz(a,h)anthracene is included in occupational exposure to polycyclic aromatic hydrocarbons (see PAH)**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 32, Lyon, France

DEE Diesel engine exhaust

Procedure LONG

Abbreviation Diesel engine exhaust

CAS IARC Group: 2A Occurrence OCCU

Definitio Inhalatory exposure at work to diesel engine exhaust likely to exceed significantly the nonoccupational background level in urban air (usually <0.6 mg/m³, often <0.1 mg/m³, measured as nitrogen dioxide).

Unit: mg/m³ milligrams of nitrogen dioxide (indicator agent of diesel exhaust) in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 1993 TWA 0.2 mg/m³ (total carbon in alveolar respirable dust, 0.6 for non-coal mining and tunneling) STEL- *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 0.15 mg/m³ of ?? (intended change), 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen (intended change).

Reference International Agency for Research on Cancer (IARC) Diesel and Gasoline Engine Exhausts and Some Nitroarenes. IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 46 1989 Lyon France

DES Diethylstilboestrol

Procedure LONG

Abbreviation Diethylstilboestrol

CAS 56-53-1 IARC Group: 1 Occurrence MEDI

Definitio Inhalatory or dermal exposure at work to diethylstilbestrol (nonsteroidal oestrogen) probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ug/m³ micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 21, Lyon, France

DESU Diethyl sulfate **Procedure** LONG

Abbreviation Diethyl sulfate

CAS 64-67-5 **IARC Group:** 2A **Occurrence** OCCU

Definitio Inhalatory or dermal exposure at work to diethyl sulphate probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ppm parts per million of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 1987, TWA 0.2 mg/m3 (0.03 ppm), STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 54, Lyon, France

DMCC Dimethylcarbamoyl chloride **Procedure** LONG

Abbreviation Dimethylcarbamoyl chloride

CAS 79-44-7 **IARC Group:** 2A **Occurrence** OCCU

Definitio Inhalatory or dermal exposure at work to dimethylcarbamoyl chloride probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 1987, TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19??, TWA, STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average VALUE MISSING, 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 12, Lyon, France

DMSU Dimethyl sulfate**Procedure** LONG**Abbreviation** Dimethyl sulfate**CAS** 77-78-1**IARC Group:** 2A**Occurrence** OCCU**Definitio** Inhalatory or dermal exposure at work to dimethyl sulphate probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** ppm parts per million of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA 0.5 mg/m³ (0.1 ppm), STEL, SKIN *** Belgium 1987, TWA 0.5 mg/m³ (0.1 ppm), STEL, SKIN *** Germany 1987, TWA 0.1 mg/m³, STEL *** Denmark 1985, TWA 0.05 mg/m³ (0.01 ppm), STEL, SKIN*** Spain 1987, TWA 0.5 mg/m³ (0.1 ppm), STEL, SKIN *** Finland 1996 TWA- STEL 0.05 mg/m³ (0.01 ppm), SKIN*** France 1987, TWA 0.5 mg/m³ (0.1 ppm), STEL*** Great Britain 1987, TWA 0.5 mg/m³ (0.1 ppm), STEL 0.5 mg/m³ (0.1 ppm), SKIN*** Greece 19?? ?TWA ?STEL*** Ireland 1987, TWA 0.5 mg/m³ (0.1 ppm), STEL 0.5 mg/m³ (0.1 ppm), SKIN *** Italy 1987, TWA 0.5 mg/m³ (0.1 ppm), STEL, SKIN *** Luxemburg 1987, TWA ?STEL, SKIN *** The Netherlands 1986, TWA ?STEL, SKIN *** Portugal 1987, TWA 0.5 mg/m³ (0.1 ppm), STEL, SKIN *** Sweden 1988, TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 0.1 ppm, 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen, and Skin referring to the potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 4, Lyon, France

EDB Ethylene dibromide

Procedure LONG

Abbreviation Ethylene dibromide

CAS 106-93-4 **IARC Group:** 2A

Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to ethylene dibromide probably exceeding nonoccupational exposure (assumed to be very rare).

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA 0.8 mg/m3 (0.1 ppm), STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 145 mg/m3 (20 ppm), STEL 220 mg/m3 (30 ppm), SKIN *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA 8 mg/m3 (1 ppm), STEL, SKIN *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA 155 mg/m3 (20 ppm), STEL, SKIN*** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average VALUE MISSING, 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen, and Skin referring to the potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 15, Lyon, France

EPI Epichlorohydrin

Procedure LONG

Abbreviation Epichlorohydrin

CAS 106-89-81 IARC Group: 2A Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to epichlorohydrin probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ppm parts per million of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA 10 mg/m³ (2ppm), STEL 20 mg/m³ (5 ppm), SKIN *** Belgium 1987, TWA 10 mg/m³ (2 ppm), STEL , SKIN*** Germany 1987, TWA 12 mg/m³, STEL *** Denmark 1985, TWA 1.9 mg/m³, STEL, SKIN *** Spain 1987, TWA 10 mg/m³ (2 ppm), STEL, SKIN *** Finland 1996 TWA 1.9 mg/m³ (0.5 ppm), STEL, SKIN *** France 1995, TWA- STEL 2 ppm *** Great Britain 1987, TWA 8 mg/m³ (2 ppm), STEL 20 mg/m³ (5 ppm), SKIN *** Greece 19?? ?TWA ?STEL *** Ireland 1987, TWA 8 mg/m³, STEL 20 mg/m³, SKIN *** Italy 1987, TWA 10 mg/m³ (2 ppm), STEL, SKIN *** Luxemburg 1987, TWA ?STEL *** The Netherlands 1986, TWA 4 mg/m³ (1 ppm), STEL 20 mg/m³ (5 ppm), SKIN *** Portugal 1987, TWA 10 mg/m³ (2 ppm), STEL, SKIN *** Sweden 1988, TWA 1.9 mg/m³ (0.5 ppm), STEL 4 mg/m³ (1 ppm), SKIN *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 2 ppm (0.5 ppm intended), no 15min exposure limit, Notations: A2 Suspected Human Carcinogen (intended), and Skin referring to the potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 11, Lyon, France

ERIO Erionite

Procedure SHORT

Abbreviation Erionite

CAS 66733-21- IARC Group: 1 Occurrence ENVI

Definitio Mainly environmental exposure in certain regions. Occupational, inhalatory exposure may occur in mining or use of zeolitic minerals, such as clinoptilolite, phillipsite, levynite or chabazite. Background level in Turkish villages (erionite area) is 0.001-0.03 f/cm³, elsewhere usually nil

Unit: f/cm³ erionite fibers (length >5µm, diameter <3µm, aspect ratio at least 3:1) in cubic centimeter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 42, Lyon, France

ETO Ethylene oxide

Procedure LONG

Abbreviation Ethylene oxide

CAS 75-21-8

IARC Group: 1

Occurrence OCCU

Definitio Inhalatory exposure at work to ethylene oxide probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ppm parts per million of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA 20 mg/m³ (10 ppm), STEL *** Belgium 19?? ?TWA 2 mg/m³ (1 ppm), STEL *** Germany 19?? ?TWA 5 mg/m³ (3 ppm), STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 2 mg/m³ (1 ppm), STEL- *** France 1995 TWA 1 ppm STEL 5 ppm *** Great Britain 19?? ?TWA 10 mg/m³ (5 ppm), STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA 90 mg/m³ (50 ppm), STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA 9 mg/m³ (5 ppm), STEL 18 mg/m³ (10 ppm), SKIN *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 1 ppm, no 15min exposure limit, Notations: A2 Suspected Human Carcinogen

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 60, Lyon, France

ETS Tobacco smoke (environmental)

Procedure LONG

Abbreviation Tobacco smoke at work

CAS

IARC Group: 1

Occurrence ENVI

Definitio Inhalatory exposure at work to environmental tobacco smoke (ETS) due to smoking of customers or coworkers. Inhaling ETS (as smoke or 'smell') at least 75% of working time is considered to entail exposure.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 38, Lyon, France

FISH Salted fish (Chinese-style)	Procedure	NONE
Abbreviation Chinese-style salted fish		
CAS	IARC Group: 1	Occurrence DIET
Definitio	A dietary exposure which is outside the established concept of occupational exposure. The number of workers occupationally exposed is zero in every country.	
Unit:	-	
TLV:	Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED	
Reference	International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 56, Lyon, France	

FORM Formaldehyde	Procedure	LONG
Abbreviation Formaldehyde		
CAS 50-00-0	IARC Group: 2A	Occurrence OCCU
Definitio	Inhalatory exposure at work to formaldehyde gas, formalin mist, paraformaldehyde dust or dust containing fresh formalin-based glue exceeding the level in urban air and dwellings (usually <0.1 ppm).	
Unit:	ppm parts per million of agent in cubic meter of workroom air	
TLV:	Austria 19?? ?TWA 1.5 mg/m3 (1 ppm), STEL 3 mg/m3 (2 ppm) *** Belgium 19?? ?TWA 1.5 mg/m3 (1 ppm), STEL 3 mg/m3 (2 ppm) *** Germany 19?? ?TWA 0.6 mg/m3 (0.5 ppm), STEL 1.2 mg/m3 (1 ppm) *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL 1.3 mg/m3 (1 ppm) *** France 1995 TWA ?STEL *** Great Britain 1986, TWA 3 mg/m3 (2 ppm), STEL 3 mg/m3 (2 ppm) *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA 1.5 mg/m3 (1 ppm), STEL 3 mg/m3 (2 ppm) *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA 0.6 mg/m3 (0.5 ppm), STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average VALUE MISSING, 15min short term exposure limit (ceiling) 0.3 ppm, Notations: A2 Suspected Human Carcinogen.	
Reference	International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 62, Lyon, France	

FOUN Iron and steel founding

Procedure CIRC

Abbreviation Iron and steel founding

CAS **IARC Group:** 1 **Occurrence** ECIR

Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as polycyclic aromatic hydrocarbons (PAH), formaldehyde, asbestos, crystalline silica and nickel compounds.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 34, Lyon, France.

FURN Furniture and cabinet making

Procedure CIRC

Abbreviation Furniture and cabinet making

CAS **IARC Group:** 1 **Occurrence** ECIR

Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as hardwood dust (eg, oak, beech) and formaldehyde.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC). Wood, Leather and Some Associated Industries IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Volume 25. Lyon 1981.

GLAS Art glass, glass containers and pressed ware (manufacture of)

Procedure CIRC

Abbreviation Manufacture of glassware

CAS

IARC Group: 2A

Occurrence

ECIR

Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as crystalline silica, asbestos, chromium(VI), cadmium, cobalt and lead compounds.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 58, Lyon, France

GLWO Glasswool

Procedure LONG

Abbreviation Glasswool

CAS

IARC Group: 2B

Occurrence

OCCU

Definitio Inhalatory exposure at work to glass fibers (ie glasswool and glass filament) made usually of finely-powdered sand (SiO₂), aluminum oxide, boric oxide, magnesium oxide, calcium oxide and sodium sulphate, probably exceeding nonoccupational exposure (assumed to be rare for this agent). Phenol-formaldehyde or melanine-formaldehyde resins are used as binders in glasswool products. Does not include rockwool, slagwool or ceramic fibers

Unit: mg/m³ milligrams of fibrous glass dust in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? TWA 10 mg/m³ STEL *** Germany 1993 TWA 0.5 fibers/cm³ (1 f/cm³ for old equipment until 12th Dec, 1995) STEL- *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA- STEL- *** France 1995 ?TWA ?STEL *** Great Britain 19?? TWA 5 mg/m³ or 2 f/ml STEL- *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? TWA 5 f/ml STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 10 mg/m³, 15min short term exposure limit VALUE MISSING,

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 43, Lyon, France

HAEM Haematite mining (underground) with exposure to radon Procedure CIRC

Abbreviation Haematite mining

CAS **IARC Group:** 1 **Occurrence** ECIR

Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as radon, crystalline silica and diesel exhaust. Haematite is an iron oxide mineral.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France

HAIR Hairdresser and barber (occupational exposure as a) Procedure CIRC

Abbreviation Hairdresser and barber

CAS **IARC Group:** 2A **Occurrence** ECIR

Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as hair dyes containing aromatic amines.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 57, Lyon, France

HBV Hepatitis B virus (chronic infection with) Procedure LONG

Abbreviation Hepatitis B virus

CAS **IARC Group:** 1 **Occurrence** INFE

Definitio Assessment of exposure was not considered possible. Contact with blood contaminated with hepatitis B virus at work without an effective vaccination may be infectious. Infection may result, eg, from contaminated needles (accidental injections) or surgical operations.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 59, Lyon, France

HCV Hepatitis C virus (chronic infection with) Procedure LONG

Abbreviation Hepatitis C virus

CAS **IARC Group:** 1 **Occurrence** INFE

Definitio Assessment of exposure was not considered possible. Contact with blood contaminated with hepatitis C virus at work may be infectious. Infection may result, eg, from contaminated needles (accidental injections) or surgical operations. There is no vaccination against HCV.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 59, Lyon, France

HELI Helicobacter pylori (infection with)

Procedure SHORT

Abbreviation Helicobacter pylori

CAS IARC Group: 1 Occurrence INFE

Definitio Gastroenterologists performing endoscopies are considered occupationally exposed in countries where prevalence of Helicobacter pylori (a common bacter causing gastritis and some other GI diseases) in general public is high. Prevalence in general population is in most countries high (10-70% in the age group 25-34y and still higher in elder age groups).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 61, Lyon, France

INSE Non-arsenical insecticides (occup. exp. in spraying and application)

Procedure CIRC

Abbreviation Non-arsenical insecticides

CAS IARC Group: 2A Occurrence OCCU

Definitio A time- and place-dependent exposure circumstance which may entail exposure to possible carcinogens, such as aramite, chlordecone, DDT, hexachlorocyclohexanes, mirex or toxaphene.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 53, Lyon, France

MAGE Magenta, (manufacture of)**Procedure** CIRC**Abbreviation** manufacture of magenta**CAS** **IARC Group:** 1 **Occurrence** ECIR**Definitio** A time- and place-dependent exposure circumstance which may entail exposure to possible carcinogens, such as toluidines and aniline**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 57, Lyon, France**MATE Hot mate****Procedure** NONE**Abbreviation** Hot mate**CAS** **IARC Group:** 2A **Occurrence** DIET**Definitio** A dietary exposure which is outside the established concept of occupational exposure. Mate is a South American infusion drink made of leaves of Ilex paraguariensis. Consumed usually as hot.**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 51, Lyon, France

MCCN 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea (Methyl-CCNU) Procedure LONG

Abbreviation Methyl-CCNU

CAS 13909-09- IARC Group: 1 Occurrence MEDI

Definitio Inhalatory or dermal exposure at work to 1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea (Methyl-CCNU) probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France

MCHL Methylene chloride Procedure LONG
Abbreviation Methylene chloride

CAS IARC Group: 2B Occurrence OCCU

Definitio Inhalatory exposure at work to methylene chloride probably exceeding nonoccupational exposure (assumed to be very rare for this agent). Occasional paint removal in construction painting (except in certain renovation jobs) is considered to be so rare that it does not entail exposure.

Unit: ppm parts per million of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA 350 mg/m3 (100 ppm), STEL 1740 mg/m3 (500 ppm) *** Belgium 19?? ?TWA 350 mg/m3 (100 ppm), STEL *** Germany 19?? ?TWA 360 mg/m3 (100 ppm), STEL 1800 mg/m3 (500 ppm)*** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 350 mg/m3 (100 ppm), STEL 525 mg/m3 (250 ppm) *** France 1995 TWA 50 ppm STEL 100 ppm *** Great Britain 19?? ?TWA 350 mg/m3 (100 ppm), STEL 870 mg/m3 (250 ppm) *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA 350 mg/m3 (100 ppm), STEL 1750 mg/m3 (500 ppm) *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA 250 mg/m3 (70 ppm), STEL 500 mg/m3 (150 ppm), SKIN *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 50 ppm, 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 63, Lyon, France

MELP Melphalan Procedure LONG
Abbreviation Melphalan

CAS 148-82-3 IARC Group: 1 Occurrence MEDI

Definitio Inhalatory or dermal exposure at work to melphalan probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 9, Lyon, France

MNNG N-Methyl-N'-nitro-N-nitrosoguanidine Procedure LONG
(MNNG)

Abbreviation MNNG

CAS 70-25-7 IARC Group: 2A Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to N-methyl-N'-nitro-N-nitrosoguanidine (MNNG) probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 4, Lyon, France

MOCA 4,4'-Methylene bis(2-chloroaniline) Procedure LONG
(MOCA)

Abbreviation MOCA

CAS 101-14-4 IARC Group: 2A Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to 4,4'-methylene bis(2-chloroaniline) (MOCA) probably exceeding nonoccupational exposure (assumed to be nil for this

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA 0.22 mg/m3 (0.02 ppm), STEL, SKIN *** Belgium 19?? ?TWA 0.22 mg/m3 (0.02 ppm), STEL, SKIN *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 0.2 mg/m3 (0.02 ppm), STEL 0.6 mg/m3 (0.06 ppm), SKIN *** France 1995 TWA 0.22 mg/m3 (0.02 ppm) STEL- *** Great Britain 19??, TWA 0.005 mg/m3, STEL, SKIN *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA 0.02 ppm, STEL, SKIN *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 0.01 ppm (110 ug/m3), 15min short term exposure limit MISSING, Notations: A2 Suspected Human Carcinogen, and Skin referring to the potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 57, Lyon, France

MOIL Mineral oils, untreated and mildly-treated (see PAHs)

Procedure PAH

Abbreviation Mineral oils, untreated

CAS **IARC Group:** 1 **Occurrence** OCCU

Definitio Exposure at work to untreated or mildly treated mineral oils (likely to contain PAHs) is included in occupational exposure to polycyclic aromatic hydrocarbons (see PAH)

Unit: mg/m³ milligrams of oil mist in cubic meter of workroom air

TLV: Mineral oils/oil mist: Austria 19?? ?TWA ?STEL *** Belgium 19?? TWA 5 mg/m³ STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA ?STEL *** Great Britain 19?? TWA 5 mg/m³ STEL 10 mg/m³ *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? TWA 5 mg/m³ STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6 for mineral oil mist: 8hour time weighted average 5mg/m³, 0.2mg/m³ (intended for mildly treated mineral oils), 15min short term exposure limit 10mg/m³, Notations: NONE, A1 intended for mildly treated mineral oils.

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 33, Lyon, France

MOPP MOPP and other chemotherapy including alkylating agents

Procedure SHORT

Abbreviation MOPP chemotherapy

CAS **IARC Group:** 1 **Occurrence** MEDI

Definitio Inhalatory or dermal exposure to MOPP (mixture of Mechlorethamine ie chlormethin, Oncovin ie vincristine, Procarbazine and Prednison) and other alkylating agents (eg chlorambucil, cyclophosphamide, isophosphamide, thiotepa, busulfan, and melphalan) in chemotherapy of cancer.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France

MPSO 5-Methoxypsoralen

Procedure SHORT

Abbreviation 5-Methoxypsoralen

CAS 484-20-8 **IARC Group:** 2A **Occurrence** MEDI

Definitio Dermal exposure at work to 5-methoxypsoralen followed by ultraviolet A radiation. Photochemotherapeutic treatment of psoriasis is considered to entail exposure if 8-methoxypsoralen comes regularly in contact with the skin of the nursing staff.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 40, Lyon, France

MPSU 8-Methoxypsoralen (Methoxsalen) plus ultraviolet A radiation

Procedure SHORT

Abbreviation 8-Methoxypsoralen therapy

CAS 298-81-7 **IARC Group:** 1 **Occurrence** MEDI

Definitio Dermal exposure at work to 8-methoxypsoralen followed by ultraviolet A radiation. Photochemotherapeutic treatment of psoriasis is considered to entail exposure if 8-methoxypsoralen comes regularly in contact with the skin of the nursing staff.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France

MUST Mustard gas (Sulfur mustard)**Procedure** LONG**Abbreviation** Mustard gas**CAS** 505-60-2**IARC Group:** 1**Occurrence**

MEDI

Definitio Inhalatory exposure at work to mustard gas probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** ppm parts per million of agent in cubic meter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 9, Lyon, France**MYLE 1,4-Butanediol dimethanesulfonate (Myleran)****Procedure** LONG**Abbreviation** Myleran**CAS** 55-98-1**IARC Group:** 1**Occurrence**

MEDI

Definitio Inhalatory exposure at work to 1,4-butanediol dimethanesulfonate (Myleran, busulfan). In Finland, hospital, pharmacy and laboratory works are not considered to entail exposure because the agent is nonvolatile and does not generate dust when handled normally.**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 4, Lyon, France

NDEA N-Nitrosodiethylamine

Procedure LONG

Abbreviation N-Nitrosodiethylamine

CAS 55-18-5 IARC Group: 2A Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to N-nitrosodiethylamine probably exceeding nonoccupational exposure (exposure level unknown for this agent). Nonoccupational exposure to N-nitrosoamines is widespread due to their occurrence in food (meat, fish, beans, cheese, spirits), tobacco smoke and formation in the human body from precursors, eg nitrite+amines in food or water.

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 17, Lyon, France

NDMA N-Nitrosodimethylamine

Procedure LONG

Abbreviation N-Nitrosodimethylamine

CAS 62-75-9 IARC Group: 2A Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to N-nitrosodimethylamine probably exceeding nonoccupational exposure (exposure level unknown for this agent). Nonoccupational exposure to N-nitrosoamines is widespread due to their occurrence in food (meat, fish, beans, cheese, spirits), tobacco smoke and formation in the human body from precursors, eg nitrite+amines in food or water.

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average VALUE MISSING, 15min short term exposure limit MISSING, Notations: A2 Suspected Human Carcinogen, and Skin referring to the potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 17, Lyon, France

NMU N-Methyl-N-nitrosourea **Procedure** LONG

Abbreviation N-Methyl-N-nitrosourea

CAS 684-93-5 **IARC Group:** 2A **Occurrence** OCCU

Definitio Inhalatory or dermal exposure at work to N-methyl-N-nitrosourea probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 17, Lyon, France

NMUS Nitrogen mustard **Procedure** LONG

Abbreviation Nitrogen mustard

CAS 51-75-2 **IARC Group:** 2A **Occurrence** MEDI

Definitio Inhalatory or dermal exposure at work to nitrogen mustard probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 9, Lyon, France

OCCO	Oral contraceptives, combined	Procedure	LONG
Abbreviation	Oral contraceptives, combined		
CAS	IARC Group: 1	Occurrence	MEDI
Definitio	Inhalatory or dermal exposure at work to combined oral contraceptives, eg, norethynodrel+mestranol, chlormadinone acetate+mestranol, chlormadinone acetate+ethinyloestradiol, ethynediol acetate+mestranol, ethynediol acetate+ethinyloestradiol.		
Unit:	ug/m3 micrograms of agent in cubic meter of workroom air		
TLV:	Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED		
Reference	International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France		

OCSE	Oral contraceptives, sequential	Procedure	LONG
Abbreviation	Oral contraceptives, sequential		
CAS	IARC Group: 1	Occurrence	MEDI
Definitio	Inhalatory or dermal exposure at work to sequential oral contraceptives, eg, chlormadinone acetate, ethinyloestradiol, dimethisterone, mestranol.		
Unit:	ug/m3 micrograms of agent in cubic meter of workroom air		
TLV:	Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED		
Reference	International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France		

ONON Oestrogens, nonsteroidal Procedure LONG

Abbreviation Oestrogens, nonsteroidal

CAS IARC Group: 1 Occurrence MEDI

Definitio Inhalatory or dermal exposure at work to nonsteroidal oestrogens, eg, diethylstilbestrol, dienooestrol, hexooestrol, trianisene.

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France

OPIS Opisthorchis viverrini (infection with) Procedure SHORT

Abbreviation Opisthorchis viverrini

CAS IARC Group: 1 Occurrence INFE

Definitio Handling of raw food (fish mainly) infected by Opisthorchis viverrini -liver flukes (parasitic trematode worms) at work. Opisthorchis viverrini infection is endemic in area of former USSR and southeastern Asia but very rare elsewhere.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 61, Lyon, France

OSTE Oestrogens, steroidal Procedure LONG

Abbreviation Oestrogens, steroidal

CAS IARC Group: 1 Occurrence MEDI

Definitio Inhalatory or dermal exposure at work to steroidal oestrogens, eg, equilin, d-equilenin, oestradiol-17b and its esters, oestriol, oestrone, ethinyloestradiol,

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France

OTHE Oestrogen replacement therapy, see Oestrogens, steroidal Procedure NONE

Abbreviation Oestrogen replacement therapy

CAS IARC Group: 1 Occurrence MEDI

Definitio Oestrogens replacement therapy is assessed in the context of Oestrogens, steroidal

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Supplement 7, Lyon, France

PAH Polycyclic aromatic hydrocarbons Procedure LONG
(excl. environmental tobacco smoke)

Abbreviation Polycyclic aromatic hydrocarbons

CAS IARC Group: P Occurrence OCCU

Definitio Inhalatory exposure at work to PAHs with at least four aromatic rings (eg, benzo(a)pyrene, benz(a)anthracene, dibenz[a,h]anthracene) likely to exceed significantly the nonoccupational levels in urban air (usually <0.005 ug/m3 of benzo(a)pyrene). Includes coal tar pitch, coal tars, soots, creosotes, shale oils, and untreated/mildly treated mineral oils. Excludes environmental tobacco smoke (assessed separately) and bus/truck/van/taxi drivers exposed to engine exhaust (low

Unit: ug/m3 micrograms of benzo(a)pyrene (indicator agent of PAHs) in cubic meter of workroom air; a part of the exposure data are for total concentration of all individual PAHs measured.

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 32, Lyon, France

PAIN Painter (occupational exposure as a) Procedure CIRC

Abbreviation Painter

CAS IARC Group: 1 Occurrence ECIR

Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as chromium (VI) pigments, formaldehyde, and coal tars (PAHs)

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC). Some organic solvents, resin monomers and related compounds, pigments and occupational exposures in paint manufacture and painting. IARC monographs on the eval. of carc. risks to humans. Vol 47. Lyon 1989.

PB**Lead and lead compounds, inorganic Procedure**

LONG

Abbreviation Lead and its inorg. compounds**CAS****IARC Group:** 2B**Occurrence**

OCCU

Definitio Inhalatory exposure at work to lead, lead alloys and lead compounds (eg, lead chromate, lead oxide, lead acetate, lead naphthenate, lead tetroxide) likely to exceed the nonoccupational background level (often <0.1ug/m³ or <0.3 umol/l blood).

Unit: ug/m³ micrograms of lead in cubic meter of workroom air; a part of the exposure data are provided for the concentration of lead in blood expressed as micromoles in liter

TLV: EU 1986 TWA 0.15 mg/m³, Austria 19?? TWA? STEL? *** Belgium 19?? TWA 0.15 mg/m³ STEL *** Germany 19?? TWA 0.1 mg/m³, STEL 1.0 mg/m³ *** Denmark 19?? TWA? STEL *** Spain 19?? TWA STEL *** Finland 1996 TWA 0.1 mg/m³, STEL *** France 1995 TWA 0.15 mg/m³ STEL- *** Great Britain 19?? ?TWA 0.15 mg/m³ ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? TWA STEL, SKIN *** Luxemburg 19?? TWA STEL *** The Netherlands 19?? TWA 0.15 mg/m³ STEL *** Portugal 19?? TWA STEL *** Sweden 1988, TWA 0.1 mg/m³ STEL *** ACGIH Threshold Limit Values in 1995-6: 8h time weighted average 50 ug/m³ (metal and inorg.comp.), no 15min values, Biol.exp.index 30ug/100ml (1.4 umol/l) blood. Notations: A3 Animal Carc. (lead and inorg.comp), A2 Susp. Human Carc. (lead chromate).

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 23, Lyon, France

PCB Polychlorinated biphenyls (PCB)

Procedure LONG

Abbreviation Polychlorinated biphenyls

CAS 1336-36-3 IARC Group: 2A Occurrence OCCU

Definitio Inhalatory exposure at work to polychlorinated biphenyls (PCBs) probably exceeding nonoccupational exposure (assumed to be nil for this agent by inhalatory route). Majority of people are nonoccupationally exposed to PCBs via the diet or water.

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 1988, TWA 0.01 mg/m3, STEL 0.03 mg/m3, SKIN *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 0.5 mg/m3, STEL 1.5 mg/m3, SKIN *** France 1995 TWA ? STEL ? *** Great Britain 19?? TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA 0.01 mg/m3, STEL 0.03 mg/m3, SKIN *** ACGIH Threshold Limit Values in 1995-6: 8h time weighted average 500 ug/m3 (chlorodiphenyl 54% Cl), 15min short term exposure limit MISSING, Notations: A3 Animal Carcinogen (proposed), and Skin, ie potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 18, Lyon, France

PCOT para-Chloro-ortho-toluidine and its strong acid salts

Procedure LONG

Abbreviation para-Chloro-ortho-toluidine

CAS 95-69-2 IARC Group: 2A Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to para-chloro-ortho-toluidine and its strong acid salts probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ug/m3 micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 1987, TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? TWA ?STEL *** Greece 19?? TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 48, Lyon, France

PCP Pentachlorophenol

Procedure LONG

Abbreviation Pentachlorophenol

CAS IARC Group: 2B Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to pentachlorophenol or its salts probably exceeding nonoccupational exposure from leisure time wood preservation or environmental contamination (assumed to be very low for this agent).

Unit: ug/m³ micrograms of pentachlorophenol in cubic meter of workroom air

TLV: Austria 19?? TWA 0.5 mg/m³, STEL 1.5 mg/m³, SKIN *** Belgium 19?? TWA 0.5 mg/m³, STEL, SKIN *** Germany 19?? TWA 0.5 mg/m³ (0.05 ppm), STEL 1 mg/m³ (0.1 ppm) *** Denmark 19?? TWA ?STEL *** Spain 19?? TWA ?STEL *** Finland 1996 TWA 0.5 mg/m³, STEL 1.5 mg/m³, SKIN *** France 1995 TWA 0.5 mg/m³ STEL- *** Great Britain 19?? TWA 0.5 mg/m³, STEL 1.5 mg/m³, SKIN*** Greece 19?? TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? TWA ?STEL, SKIN*** Luxemburg 19?? TWA ?STEL *** The Netherlands 19?? TWA 0.5 mg/m³, STEL, SKIN *** Portugal 19?? TWA ?STEL *** Sweden 1988, TWA 0.5 mg/m³, STEL 1.5 mg/m³, SKIN *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 500 ug/m³, no 15min exposure limit, Notations: A3 Animal Carcinogen (proposed), and Skin referring to the potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 53, Lyon, France

PER Tetrachloroethylene

Procedure LONG

Abbreviation Tetrachloroethylene

CAS 127-18-4 IARC Group: 2A Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to tetrachloroethylene (perchloroethylene) probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ppm parts per million of tetrachloroethylene in cubic meter of workroom air

TLV: Austria 19?? TWA STEL *** Belgium 19?? TWA 335 mg/m³ (50 ppm), STEL 1340 mg/m³ (200 ppm) *** Germany 19?? TWA 345 mg/m³ (50 ppm), STEL 690 mg/m³ (100 ppm) *** Denmark 19?? TWA ?STEL *** Spain 19?? TWA ?STEL *** Finland 1996 TWA 335 mg/m³ (50 ppm), STEL 505 mg/m³ (75 ppm) *** France 1995 TWA 335 mg/m³ (50 ppm) STEL *** Great Britain 19?? TWA 670 mg/m³ (100 ppm), STEL 1000 mg/m³ (150 ppm) *** Greece 19?? TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? TWA ?STEL *** Luxemburg 19?? TWA ?STEL *** The Netherlands 19?? TWA 240 mg/m³ (35 ppm), STEL, SKIN *** Portugal 19?? TWA ?STEL *** Sweden 1988, TWA 140 mg/m³ (20 ppm), STEL 350 mg/m³ (50 ppm) *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 25 ppm, 15min short term exposure limit 100 ppm, Notations: A3 Animal Carcinogen

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 63, Lyon, France

PHEN Phenacetin**Procedure** LONG**Abbreviation** Phenacetin**CAS** 62-44-2**IARC Group:** 2A**Occurrence** MEDI**Definitio** Inhalatory exposure at work to phenacetin probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 24, Lyon, France**PROC Procarbazine hydrochloride****Procedure** LONG**Abbreviation** Procarbazine hydrochloride**CAS** 366-70-1**IARC Group:** 2A**Occurrence** MEDI**Definitio** Inhalatory exposure at work to procarbazine hydrochloride (a component of MOPP mixture used in chemotherapy of cancer) probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 26, Lyon, France

RUBB Rubber industry

Procedure CIRC

Abbreviation Rubber industry

CAS IARC Group: 1 Occurrence ECIR

Definitio A time- and place-dependent exposure circumstance which may entail exposure to carcinogens, such as polycyclic aromatic hydrocarbons (PAH), 2-naphthylamine, formaldehyde and MOCA.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 28, Lyon, France

SCHI Schistosoma haematobium (infection with)

Procedure SHORT

Abbreviation Schistosoma haematobium

CAS IARC Group: 1 Occurrence INFE

Definitio Handling of water contaminated with Schistosoma haematobium ('fluke' ie parasitic trematode worm) at work. Schistosomiasis occurs mainly in Africa, and it is very rare elsewhere.

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 61, Lyon, France

SHAL Shale-oils (see PAHs)**Procedure** PAH**Abbreviation** Shale-oils**CAS** 68308-34- **IARC Group:** 1 **Occurrence** OCCU**Definitio** Exposure at work to shale oils (products of thermal processing of oil shale sedimentary rock, contain PAHs) is included in the assessment of occupational exposure to polycyclic aromatic hydrocarbons (see PAH)**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 35, Lyon, France**SILI Silica, crystalline****Procedure** LONG**Abbreviation** Silica, crystalline**CAS** 14808-60- **IARC Group:** 1 **Occurrence** OCCU**Definitio** Inhalatory exposure at work to crystalline silica (mainly as quartz, cristobalite, tridymite or tripoli) or minerals containing crystalline silica probably exceeding nonoccupational exposure originating from road dust, beach sand etc (long-term exposure level to respirable dust usually <0.01 mg/m³) . Excludes amorphous silica and clay.**Unit:** mg/m³ milligrams of respirable crystalline silica dust in cubic meter of workroom air**TLV:** EU 19?? TWA 0.1 mg/m³, max.limit 0.5 mg/m³ *** Austria 19?? TWA ?STEL *** Belgium 19?? TWA from a formula *** Germany 19?? TWA 0.15 mg/m³ in respirable dust *** Denmark 19?? TWA ?STEL *** Spain 19?? TWA ?STEL *** Finland 1996 TWA 0.2 mg/m³ in respirable dust *** France 1995 TWA from a formula *** Great Britain 19?? TWA 0.3 mg/m³ in total dust or 0.1 mg/m³ in resp.dust *** Greece 19?? TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? TWA ?STEL *** Luxemburg 19?? TWA ?STEL *** The Netherlands 19?? TWA 0.15 mg/m³ in respirable dust *** Portugal 19?? ?TWA ?STEL *** Sweden 1988, TWA 0.1 mg/m³ in respirable dust *** ACGIH Threshold Limit Values in 1995-6 for respirable silica dust: 8h time weighted average 50 ug/m³ (cristobalite, tridymite) and 100 ug/m³ (quartz, tripoli), no 15min short term exposure limits, Notations: Quartz A2 Suspected Human Carcinogen (proposed)**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 42, Lyon, France

SOL Solar radiation

Procedure LONG

Abbreviation Solar radiation

CAS IARC Group: 1 Occurrence ENVI

Definitio Regular outdoor work (>75% of annual working time) is considered to entail exposure. The figures are not comparable from the point of view of UV radiation dose, because the intensity of radiation varies by country. The annual weekday UV exposure dose of indoor worker in northern Europe is 40-160 MED and that of outdoor worker 2-3 times higher, typically around 250 MED. Global radiation in central Europe and North USA is around twofold, and in South Europe and USA threefold as compared to North Europe.

Unit: MED minimal erythema dose (unit of biologically effective dose)

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** No values for solar radiation in 1995-6. TLV of UV radiation to unprotected skin/eye (8-h period) varies by wavelength (given as a curve): for UVA 10000-1000000 J/m², for UVB 34-10000 J/m², and for 2500-34 J/m². TLV<50 J/m² for wavelength 260-290 nm.

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 55, Lyon, France

SOOT Soots (see PAHs)

Procedure PAH

Abbreviation Soots

CAS IARC Group: 1 Occurrence OCCU

Definitio Exposure at work to soots is included in occupational exposure to polycyclic aromatic hydrocarbons (see PAH)

Unit: - -

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 35, Lyon, France

STOX Styrene-7,8-oxide**Procedure** LONG**Abbreviation** Styrene-7,8-oxide**CAS** 96-09-3 **IARC Group:** 2A **Occurrence** OCCU**Definitio** Inhalatory or dermal exposure at work to styrene-7,8-oxide, metabolite of styrene which occurs simultaneously with high levels of styrene.**Unit:** ppm parts per million of agent in cubic meter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 60, Lyon, France**STYR Styrene****Procedure** LONG**Abbreviation** Styrene**CAS** 100-42-5 **IARC Group:** 2B **Occurrence** OCCU**Definitio** Inhalatory or dermal exposure at work to styrene probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** ppm parts per million of agent in cubic meter of workroom air**TLV:** Austria 19?? TWA ? STEL ? *** Belgium 19?? TWA 215 mg/m3 (50 ppm), STEL 425 mg/m3 (100 ppm) *** Germany 19?? TWA 85 mg/m3 (20 ppm), STEL 170 mg/m3 (40 ppm) *** Denmark 19?? TWA ?STEL *** Spain 19?? TWA ?STEL *** Finland 1996 TWA 20 ppm, STEL 100 ppm *** France 1995 TWA 50 ppm STEL- *** Great Britain 19?? TWA 420 mg/m3 (100 ppm), STEL 1050 mg/m3 (250 ppm) *** Greece 19?? TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? TWA 215 mg/m3 (50 ppm), STEL *** Luxemburg 19?? TWA ?STEL *** The Netherlands 19?? TWA 420 mg/m3 (100 ppm) STEL *** Portugal 19?? TWA ?STEL *** Sweden 1988, TWA 110 mg/m3 (25 ppm), STEL 300 mg/m3 (75 ppm), SKIN *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 50 ppm (20 ppm intended),15min exposure limit 100 ppm (40 ppm intended), Notations: Skin referring to the potential significant exposure by the cutaneous route**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 60, Lyon, France

TALF Talc containing asbestiform fibres**Procedure** LONG**Abbreviation** Talc cont. asbestiform fibres**CAS** **IARC Group:** 1 **Occurrence** OCCU**Definitio** Inhalatory exposure at work to talc containing asbestiform fibers probably exceeding nonoccupational exposure (assumed to be nil for this agent). Talc is a magnesium silicate mineral which occurs in association with fibrous minerals (tremolite, anthophyllite, sometimes with chrysotile) or nonfibrous minerals (calcite, dolomite, magnesite, quartz, mica etc). Nonasbestiform, granular forms of talc are excluded.**Unit:** f/cm3 talc fibers (length >5µm, diameter <3µm, aspect ratio at least 3:1) in cubic centimeter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 0.5 f/cm3 (fibrous talc) STEL- *** France 1995 TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** As for asbestos, ie, ACGIH Threshold Limit Values in 1995-6: 0.2 f/cm3 for crocidolite, 0.5 f/cm3 for amosite, 2 f/cm2 for chrysotile and other forms of asbestos, Intended change: 0.2 f/cm3 for all forms. Notations: A1 Confirmed Human Carcinogen**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 42, Lyon, France**TBP Tris(2,3-dibromopropyl)phosphate****Procedure** LONG**Abbreviation** Trisdibromopropylphosphate**CAS** 126-72-7 **IARC Group:** 2A **Occurrence** OCCU**Definitio** Inhalatory or dermal exposure at work to tris(2,3-dibromopropyl)phosphate probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** ug/m3 micrograms of agent in cubic meter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 20, Lyon, France

TCPR 1,2,3-Trichloropropane

Procedure LONG

Abbreviation 1,2,3-Trichloropropane

CAS 96-18-4 IARC Group: 2A Occurrence OCCU

Definitio Inhalatory or dermal exposure at work to 1,2,3-trichloropropane probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ppm parts per million of agent in cubic meter of workroom air

TLV: Austria 19?? TWA STEL *** Belgium 19?? TWA 300 mg/m³ (50 ppm), STEL 400 mg/m³ (75 ppm) *** Germany 19?? TWA 300 mg/m³ (50 ppm), STEL 1500 mg/m³ (250 ppm) *** Denmark 19?? TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA 300 mg/m³ (50 ppm), STEL 450 mg/m³ (75 ppm), SKIN *** France 1995 TWA ?STEL *** Great Britain 19?? TWA 300 mg/m³ (50 ppm), STEL 450 mg/m³ (75 ppm) *** Greece 19?? TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? TWA ?STEL *** Luxemburg 19?? TWA ?STEL *** The Netherlands 19?? TWA 300 mg/m³ (50 ppm), STEL *** Portugal 19?? TWA ?STEL *** Sweden 19?? TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 10 ppm,15min exposure limit VALUE MISSING, Notations: Intended A3, Animal Carcinogen, and Skin referring to the potential significant exposure by the cutaneous route

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 63, Lyon, France

THIO Thiotepa

Procedure LONG

Abbreviation Thiotepa

CAS 52-24-4 IARC Group: 1 Occurrence MEDI

Definitio Inhalatory exposure at work to thiotepa probably exceeding nonoccupational exposure (assumed to be nil for this agent).

Unit: ug/m³ micrograms of agent in cubic meter of workroom air

TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED

Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 50, Lyon, France

TPSS Tobacco products, smokeless**Procedure** NONE**Abbreviation** Tobacco products, smokeless**CAS** **IARC Group:** 1 **Occurrence** DIET**Definitio** A lifestyle exposure which is outside the established concept of occupational exposure. Includes, eg, oral use of snuff, of chewing tobacco and of khaini (tobacco mixed with lime). The number of workers occupationally exposed is zero in every**Unit:** - -**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 37, Lyon, France**TREO Treosulfan****Procedure** LONG**Abbreviation** Treosulfan**CAS** 299-75-2 **IARC Group:** 1 **Occurrence** MEDI**Definitio** Inhalatory exposure at work to treosulfan probably exceeding nonoccupational exposure (assumed to be nil for this agent).**Unit:** ug/m3 micrograms of agent in cubic meter of workroom air**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 26, Lyon, France

TRI Trichloroethylene**Procedure** LONG**Abbreviation** Trichloroethylene**CAS** 79-01-6 **IARC Group:** 2A **Occurrence** OCCU**Definitio** Inhalatory or dermal exposure at work to trichloroethylene exceeding significantly the levels in urban air (usually <0.01 ppm).**Unit:** ppm parts per million of agent in cubic meter of workroom air**TLV:** Austria 19?? TWA STEL *** Belgium 19?? TWA 270 mg/m3 (50 ppm), STEL 1080 mg/m3 (200 ppm) *** Germany 19?? TWA 260 mg/m3 (50 ppm), STEL 1300 mg/m3 (250 ppm) *** Denmark 19?? TWA ?STEL *** Spain 19?? TWA ?STEL *** Finland 1996 TWA 160 mg/m3 (30 ppm), STEL 240 mg/m3 45 ppm) *** France 1995 TWA 75 ppm STEL 200 ppm *** Great Britain 19?? TWA 100 ppm, STEL 150 ppm, SKIN *** Greece 19?? TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? TWA 270 mg/m3 (50 ppm), STEL *** Luxemburg 19?? TWA ?STEL *** The Netherlands 19?? TWA 190 mg/m3 (35 ppm), STEL 538 mg/m3 (100 ppm) *** Portugal 19?? TWA ?STEL *** Sweden 1988, TWA 110 mg/m3 (20 ppm), STEL 250 mg/m3 (50 ppm) *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 50 ppm, 15min short term exposure limit 100 ppm, Notations: NONE**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 63, Lyon, France**UV****Ultraviolet radiation, artificial** Procedure

SHORT

Abbreviation UV radiation, artificial**CAS** **IARC Group:** 2A **Occurrence** ENVI**Definitio** Exposure to ultraviolet radiation A (wavelength 315-400 nm), B (wavelength 280-315 nm), or C (wavelength 100-280 nm) at work originating from artificial sources (eg, welding).**Unit:** J/m2 joule per square meter of irradiant exposure (He). He=Ee x t where Ee is irradiance (W/m2). Biologically effective dose is often measured as MED -units (minimal erythema dose).**TLV:** Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 19?? ?TWA ?STEL *** France 19?? ?TWA ?STEL *** Great Britain 19?? ?TWA ?STEL *** Greece 19?? ?TWA ?STEL *** Ireland 19?? ?TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6 for unprotected skin or eye (8-h period) varies by wavelenght (given as a curve): for UVA 10000-1000000 J/m2, for UVB 34-10000 J/m2, and for UVC 2500-34 J/m2. TLV<50 J/m2 for wavelenght 260-290 nm.**Reference** International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 55, Lyon, France

VBM Vinyl bromide	Procedure	LONG
Abbreviation Vinyl bromide		
CAS 593-60-2	IARC Group: 2A	Occurrence OCCU
Definitio	Inhalatory or dermal exposure at work to vinyl bromide probably exceeding nonoccupational exposure (assumed to be nil for this agent).	
Unit: ppm	parts per million of agent in cubic meter of workroom air	
TLV:	Austria 19?? TWA STEL *** Belgium 19?? TWA 20 mg/m3 (5 ppm) STEL *** Germany 19?? TWA ?STEL *** Denmark 19?? TWA ?STEL *** Spain 19?? TWA ?STEL *** Finland 1996 TWA 20 mg/m3 (5 ppm), STEL 40 mg/m3 (10 ppm) *** France 1995 TWA 5 ppm STEL- *** Great Britain 19?? TWA 20 mg/m3 (5 ppm), STEL *** Greece 19?? TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? TWA ?STEL *** Luxemburg 19?? TWA ?STEL *** The Netherlands 19?? TWA 20 mg/m3 (5 ppm), STEL *** Portugal 19?? TWA ?STEL *** Sweden 19?? TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 5 ppm, 15min short term exposure limit VALUE MISSING, Notations: A2 Suspected Human Carcinogen	
Reference	International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 39, Lyon, France	

VCM Vinyl chloride	Procedure	LONG
Abbreviation Vinyl chloride		
CAS 75-01-4	IARC Group: 1	Occurrence OCCU
Definitio	Inhalatory or dermal exposure at work to vinyl chloride probably exceeding nonoccupational exposure (assumed to be nil for this agent).	
Unit: ppm	parts per million of agent in cubic meter of workroom air	
TLV:	EU 1980 TWA-1y 3 ppm, TWA-8h 7 ppm *** Austria 19?? TWA STEL *** Belgium 19?? TWA 10 mg/m3 (5 ppm), STEL *** Germany 19?? TWA-1y 2 ppm (3 ppm in existing VC and PVC plants), STEL- *** Denmark 19?? TWA ?STEL *** Spain 19?? TWA ?STEL *** Finland 1996 TWA 15 mg/m3 (5 ppm), STEL 60 mg/m3 (20 ppm) *** France 1995 TWA 1 and 3 ppm? STEL *** Great Britain 19?? TWA 7 ppm STEL *** Greece 19?? TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? ?TWA 1 ppm STEL *** Luxemburg 19?? TWA ?STEL *** The Netherlands 19?? TWA-1y 6 mg/m3 (3 ppm), STEL *** Portugal 19?? TWA ?STEL *** Sweden 1988, TWA 2.5 mg/m3 (1 ppm), STEL 13 mg/m3 (5 ppm), SKIN *** ACGIH Threshold Limit Values in 1995-6: 8hour time weighted average 5 ppm, 15min short term exposure limit VALUE MISSING, Notations: A1 Confirmed Human Carcinogen	
Reference	International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 19, Lyon, France	

VFM Vinyl fluoride	Procedure	LONG
Abbreviation Vinyl fluoride		
CAS 75-02-5	IARC Group: 2A	Occurrence OCCU
Definitio Inhalatory or dermal exposure at work to vinyl fluoride probably exceeding nonoccupational exposure (assumed to be nil for this agent).		
Unit: ppm parts per million of agent in cubic meter of workroom air		
TLV: Austria 19?? ?TWA ?STEL *** Belgium 19?? ?TWA ?STEL *** Germany 19?? ?TWA ?STEL *** Denmark 19?? ?TWA ?STEL *** Spain 19?? ?TWA ?STEL *** Finland 1996 TWA-STEL- *** France 1995 TWA-STEL- *** Great Britain 19?? TWA ?STEL *** Greece 19??TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? ?TWA ?STEL *** Luxemburg 19?? ?TWA ?STEL *** The Netherlands 19?? ?TWA ?STEL *** Portugal 19?? ?TWA ?STEL *** Sweden 19?? ?TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: NO VALUES PROVIDED		
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 39, Lyon, France		

WOOD Wood dust	Procedure	LONG
Abbreviation Wood dust		
CAS	IARC Group: 1	Occurrence OCCU
Definitio Inhalatory exposure at work to hardwood dust (eg, oak, beech, elm, ash, birch, most tropical woods), softwood dust (eg, pine, spruce, larch), woodbark dust and dusts containing wood (eg, plywood or particleboard dust) probably exceeding nonoccupational exposure from leisure-time woodworking (long-term exposure level usually <0.1 mg/m3). Excludes exposure to pulp and paper dust.		
Unit: mg/m3 milligrams of wood dust in cubic meter of workroom air		
TLV: Austria 19?? TWA ?STEL *** Belgium 19?? TWA 3 mg/m3 STEL *** Germany 1993 TWA 2 mg/m3 STEL- *** Denmark 19?? TWA ?STEL *** Spain 19?? TWA ?STEL *** Finland 1996 TWA 5 mg/m3 STEL 10 mg/m3 *** France 1995 TWA 3 mg/m3 (1 mg/m3 1997) *** Great Britain 19?? TWA 5 mg/m3 STEL- *** Greece 19?? TWA ?STEL *** Ireland 19?? TWA ?STEL *** Italy 19?? TWA ?STEL *** Luxemburg 19?? TWA ?STEL *** The Netherlands 19?? TWA 5 mg/m3 (2 mg/m3 in 1999) *** Portugal 19?? TWA ?STEL *** Sweden 19?? TWA ?STEL *** ACGIH Threshold Limit Values in 1995-6: 8h time weighted average 5mg/m3 (soft wood) and 1mg/m3 (certain hard woods as beech & oak), 15min short term exposure limits 10mg/m3 (soft wood), Notations: Intended A1 Confirmed Human Carcinogen (certain hardwoods)		
Reference International Agency for Research on Cancer (IARC) IARC Monographs on the evaluation of carcinogenic risks to humans. Vol 62, Lyon, France		