

A I A

Asbestos International Association

AIA INFORMATION MEMORANDUM

A.I.M 1 / 91

**SUMMARY OF MAIN FEATURES OF
ASBESTOS REGULATIONS
(and other fibres when appropriate)**

Updated November 1991

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ARGENTINA

■ **RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS**

- No restrictions on asbestos containing products.

■ **LABELLING** - N.A.

■ **HEALTH REGULATIONS AT THE WORKPLACE**

ASBESTOS (Decree N°2752 of the government of Buenos Aires province - 24 May, 1985 - Effective June 1989)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	1 f/ml	1 f/ml	1 f/ml
Action level	N.A.	N.A.	N.A.	N.A.

(Provincial decree prevails over national laws, 80% to 90% of the asbestos industry are situated within the Buenos Aires province)

OTHER FIBRES - N.A.

■ **MEDICAL SURVEILLANCE AT THE WORKPLACE**

Surveillance responsibility	Med Exam	Frequency
Industry	N.A.	N.A.

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate
10	0.25	N.A.	0.2	NA	5.5-10	N.A.

* mg/liter

. Waste (no regulation)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
Industrial	no	no	no

N.A. - Non Applicable

AUSTRALIA

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- Essentially there is a total ban on the manufacture of asbestos containing products in all Australian states.
- The only exception is a friction material factory in the state of Victoria

■ LABELLING

- . All products from the above mentioned factory are labelled with the standard U.K. Asbestos Warning label.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (asbestos regulations 1978 - proclaimed 19-12-91)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	0.5 f/ml	Nil	Nil	Nil
Action level	Nil	Nil	Nil	Nil

OTHER FIBRES

- Synthetic mineral fibre (Code of Practice)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE (Asbestos)

Surveillance responsibility	Med Exam	Frequency
Industry	yes	every three years

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
No visible emissions	as for asbestos

Emission to pass through fabric filter comply with section 61-154 of the USA Federal Register 48(135) July 1983.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺ **	T°C	PH	Discharge rate
N.A.	N.A.	N.A.	N.A.	NA	NA	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
All	Yes	Yes	N.A.

N.A. - Non Applicable

Control by the Construction Safety Act (NSW) also Env. Hazard Chemical Act (NSW)

AUSTRIA

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- Effective from 1/1/88 the use of asbestos containing brake linings and clutches for cars is banned.
- Effective from 1st January 1994
 - . Prohibition of asbestos cement products for buildings construction
- Effective from 1st July 1990
 - . Prohibition of A/C sheets unless they have an asbestos free covering layer
- Effective from 27th June 1990
 - . Prohibition of all amphiboles asbestos containing products.

■ LABELLING

- . Yes, Voluntary, all products

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	0.5 f/ml	1 f/ml	1 f/ml
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES

For cellulose and acrylic, TLV nuisance : 15 mg/m³, fine dust 6mg/m³. For MMMF and mica: 10mg/m³, talc : 5mg/m³

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Government	Chest X Ray lung function	every two years

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
0.1 mg/Nm3	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr***	T°C	PH	Discharge rate
50	N.A.	N.A.	N.A.	NA	NA	72 m3/hour

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

--- N.A. - Non Applicable ---

BELGIUM

■ **RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS**

Royal Decree 15-12-1978 :

- Prohibition of spray asbestos
- The use of crocidolite is prohibited with the following exceptions :
 - A/C Pipes
 - Seals, gaskets and packings

Royal Decree 28-08-1986 and 10-04-1987

- Implementation of the 83/478/EEC and 85/610/EEC directives

■ **LABELLING** (Royal decree 28-08-1986)

All asbestos products or the packaging thereof shall bear the EEC label (in three languages)

■ **HEALTH REGULATIONS AT THE WORKPLACE**

ASBESTOS (Royal decree 28-08-1986)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	0.15 f/ml	1 f/ml	0.15f/ml
Action level	0.25 f/ml	0.25 f/ml	0.25 f/ml	N.A.

OTHER FIBRES - N.A.

Voluntary rule : same TLV as for asbestos fibres

■ **MEDICAL SURVEILLANCE AT THE WORKPLACE**

Surveillance responsibility	Med Exam	Frequency
Industry & any physicians	Chest X Ray lung function	each year

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
0.1 mg/Nm ³	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton.
<30	N.A.	N.A.	<0.3		6.5-9.5	<0.3-1

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
Industrial (1)	yes (1) (2)	yes (1) (2)	yes (3)

(1) Loi du 22/7/1974

(2) AR du 9/2/1976

(3) Loi du 9/7/1984

AR du 2/6/1987

AR du 4/8/1987

N.A. - Non Applicable

BRAZIL

■ **RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS**

Portaria N° 01 de 28 Maio 1991

- The use of amphiboles or amphiboles containing products is prohibited.
- No prohibitions on chrysotile containing products
- Application of asbestos by spraying is forbidden

■ **LABELLING** (Portaria N°01 de 28 Maio 1991)

All asbestos containing products

■ **HEALTH REGULATIONS AT THE WORKPLACE**

ASBESTOS (Portaria N° 01 de 28 Maio 1991)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	2 f/ml	N.A.	N.A.	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES - N.A.

Voluntary rule : same TLV as for asbestos fibres

■ **MEDICAL SURVEILLANCE AT THE WORKPLACE**

(Portaria N°01, 28 Maio 1991)

Surveillance responsibility	Med Exam	Frequency
Industry	X-Ray lung function	1 to 3 years

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

* $\pm$ f/cm³

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺ **	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	0.5	N.A	5-9	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

CANADA

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

No prohibitions

■ LABELLING (Voluntary, raw fibres)■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Canadian Labour Code, part IV)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	2 f/ml	0.2 f/ml	0.5 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES - N.A.

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry and government approved physicians	Chest X-Ray Lung Function full med exam	at least every 12 months

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions (Interim order 1989)

Asbestos Dust	Mixed Dust
2 f/cm ³	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺ *	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A	N.A	N.A.

*mg/liter

. Waste (Regional specific regulations, 1983, 1988).

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
All	No	No	Yes

N.A. - Non Applicable

CHILE

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

No prohibitions

■ LABELLING - N.A.■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Decree n°78, Feb. 9, 1983)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	2 f/ml	2 f/ml	2 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES - N.A.

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry	Chest X-Ray Lung Function	every 2 years

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺ *	T°C	PH	Discharge rate M ³ /ton:
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

DENMARK

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

Regulation N°139 of 27 March 1987, effective since 1st July, 1988

Ban on manufacture, import and use of asbestos or asbestos-containing materials of all kinds. Following exemptions apply : until 1 July 1988: asbestos-cement materials until 1 January, 1990 : commutators until further notice : friction materials, bonded packing and bearing linings.

■ LABELLING - (Regulation N° 660 of 24 September 1986)■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Decree n°78, Feb. 9, 1983)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	0.3 f/ml	0.3 f/ml Ceiling value	0.3 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES - (since 01/05/88)

TLV Erionite : 0.5 f/ml
Wollastonite, attapulgate : 2 f/ml
Mineral Dust, inert : 10mg/m³
Mineral dust respirable : 5mg/m³

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry	Chest X-Ray Lung Function	every 2 years

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions (In force as from 1/1/89)

Asbestos Dust	Mixed Dust
0.1 mg/Nm ³	N.A.

. Water effluents - N.A.

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste (Order 660, 24/04/1986)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
All	No	yes, but waste where fibres are bonded maybe disposed on an ordinary dumping site	no regulations

N.A. - Non Applicable

DUBAI

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

N.A.

■ LABELLING - N.A.■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	N.A.	N.A.	N.A.	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

■ OTHER FIBRES - N.A.■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/..

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
5f /cm3	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A	N.A	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
Industrial	no	yes	no

N.A. - Non Applicable

EEC

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- Application of asbestos by spraying (Dir. 83/477/EEC)
- The use of crocidolite is forbidden, with the following three exemptions (Dir 83/478/EEC)
 - . A/C Pipes
 - . acid, alkali and temperature resisting seals gaskets and packings
 - . Torque convectors
- The use and the placing on the market of the following products containing (chrysotile, amosite, anthophyllite, actinolite, tremolite) is prohibited (Dir 85/610/EEC):
 - . materials or preparations intended to be applied by spraying
 - . finished products which are retailed to the public in powder form
 - . items for smoking (pipes, cigarette holders...)
 - . catalytic filters and insulation decrees for incorporation in catalytic heaters using liquified gas.
 - . Paint and varnishes
- The Commission has adopted on October 31, 1991 regulation which implies the ban of all amphiboles asbestos types and extends the list of prohibitions to 7 non-essential chrysotile containing products which cannot be adequately controlled.

■ LABELLING (Directive 83/478/EEC)

- All asbestos containing products

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Directive 91/382/EEC, 25th June 1991 to be implemented before 1st January 1993)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	0.6 f/ml	0.3 f/ml	0.3 f/ml	0.3f/ml
Action level	0.2 f/ml	0.1 f/ml	0.1 f/ml	0.1f/ml

OTHER FIBRES - N.A.

/...

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Depending on the national regulations	Chest X-Ray Lung Function	At least each 3 years

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions (Directive 87/217/EEC)

Asbestos Dust	Mixed Dust
0.1 mg/Nm ³	N.A.

. Water effluents (Directive 87/217/EEC)

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
<30	N.A.	N.A.	N.A.	N.A	N.A	N.A.

*mg/liter

. Waste

- (1) Directive 78/319/EEC
- (2) Directive 78/319/EEC
- (3) Directives 84/631/EEC, 85/469/EEC and 86/279/EEC
- (4) Proposal for Council Directive COM(90) final 415-90/c 289/05

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
Fibres and dust (1)	yes (2)	yes (2)	yes (3) (4)

N.A. - Non Applicable

ENGLAND

■ **RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS**

- Asbestos Products Safety Regulations 1985 prohibit the supply of crocidolite and amosite and products containing these materials.
- Asbestos Prohibitions Regulations 1985
 - . Prohibit the importation, supply and use of crocidolite and amosite and products containing these minerals
 - . Prohibition of asbestos spraying and installation of asbestos insulations
- Asbestos Products Safety Amendment 1987
 - . Implementation of the 83/478/EEC directive
- Asbestos Production Safety Amendment 1988
 - . Implementation of the 85/610/EEC directive

■ **LABELLING** (Asbestos Products Safety Regulation 1985)

All asbestos products

■ **HEALTH REGULATIONS AT THE WORKPLACE**

ASBESTOS (The control of asbestos at work regulations 1987)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	0.5f/ml	0.2 f/ml	0.2 f/ml	N.A.
Action level	0.25 f/ml	0.1 f/ml	0.1 f/ml	N.A.

OTHER FIBRES - (No regulations)

The Advisory Committee on Toxic Substances has made a recommendation for introduction of a control limit value of 1 f/ml for all MMMF.

- **MEDICAL SURVEILLANCE AT THE WORKPLACE** (The asbestos licensing regulations 1983 and the control of asbestos at work, regulations 1987)

Surveillance responsibility	Med Exam	Frequency
Industry, in some case government	Chest X Ray lung function	not more than two years

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions (No specific regulations)

Air pollution or atmospheric emission are controlled between central and local government under the Health and Safety's Regs '83 (5/08/1983)

Asbestos Dust	Mixed Dust
0.1 mg/Nm ³	N.A.

. Water effluents (an draft, to be soon publicized)

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate
<30	N.A.	10-50	0.5	<50	6-10	500m ³ /day

*mg/liter

. Waste (U.K.'s control of pollution Act 1974, Special waste regulations 1980)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
All	licenced contractors	yes	no

N.A. - Non.Applicable

FINLAND

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- Application of asbestos by spraying is forbidden
- Use of crocidolite is prohibited. However, exemptions maybe obtained from de L.P.B. (Labour Protection Board)

■ LABELLING

(Decree N°A4/77 Feb. 10, 1977. Required for asbestos waste and asbestos containing products, excluding A/C products)

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	0.5f/ml	0.5 f/ml	0.5 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES - (Gravmetric method limit 10mg/m3)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/..

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A	N.A	N.A.

*mg/liter

. Waste (1974, 1980)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
Ind. demolition	yes	yes	:

N.A. - Non Applicable

FRANCE

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

Arrêté 29/06/77 : Spraying of asbestos in building is prohibited.

Decree 88-466, 28/04/88 : Implementation of the 83/478/EEC and 85/610/EEC directives

■ LABELLING (Decree 88-466, 28/04/88)

All products containing asbestos or the packaging thereof shall bear the (EEC) label.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Decree 77-949, 17/08/77, Decree 87-232 27/03/87)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	0.5 f/ml	1 f/ml	0.8f/ml
Action level	0.25 f/ml	0.25 f/ml	0.25 f/ml	0.25f/ml

OTHER FIBRES

No special regulations except for the asbestos industry has opted for an unilateral voluntary rule requiring the same technical provisions whatever fibres are used at the workplace.

■ MEDICAL SURVEILLANCE AT THE WORKPLACE (Arrêté 11/07/77, Decree 77-949, 17/08/77, Arrêté 08/03/79)

Surveillance responsibility	Med Exam	Frequency
Industry & any physicians	chest X-ray Lung function	Each year

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■ **PREVENTION OF ENVIRONMENTAL POLLUTION**

- . Air emissions (1980 Branch Contract, 1981 Technical Instruction, 1984 Circular, 1988 Technical Instruction, Arrêté 31/08/89)

Asbestos Dust	Mixed Dust
0.1 mg/Nm ³	0.5 mg/Nm ³

- . Water effluents (1980 Branch Contract, 1981 Technical Instruction, 1984 Circular, 1988 Technical Instruction, Arrêté 31/08/89)

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate
<30	<15	<5	<0.1	30	5.5-8	<0.2m ³ /ton

*mg/liter

- . Waste (Decree 77-974, 19/08/77; Law 75-633, 15/07/83; Decree 90-267, 23/03/90)

Type of asbestos Waste concerned	Transp. by Licenced Contractors	Industrial Dumping Site required	Restriction on Imp/Exp
All	Yes	Yes	Yes

N.A. - Non Applicable

GERMANY

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- 1979 - spraying
- 1980s' - several products (see AIM 3/80 updated August 1989)
- 1990 - Zweite Verordnung zur Änderung der Gefahrstoff Verordnung - Gefstoffs V) (Regulation on dangerous substances)
- . The regulation contains the shifting up of asbestos into group I (cancerogene products) which implies a "zero exposure" under the german law.
- . Exemptions are granted :
until 31st December 1990 for production and until 31st December 1990 for distribution and use for the following products :
 - . asbestos-cement sheets,
 - . disc-brakes for railway,
 - . brakes for cars without the banned applications in appendix II of the German regulations for dangerous substances
 - . special cables for electrical insulation
- . Further exemptions are granted :
until 31 December 1993 for production and until 31 December 1994 for distribution and use for the following products :
 - . Fire protection clothes for temperatures of more than 1000°C, if there is direct contact with materials, which are fluid-melted
 - . Asbestos-cement pipes
 - . clutches for cars without the banned applications in Appendix II of the German regulations for fibre-armed duroplastic-materials for commutators
 - . Cylinderhead and other gaskets and packings for cars and industrial applications
 - . Brakes for railway
 - . Friction-materials for industrial applications
 - . Porous asbestos-containing filling-material for acetylen-containers
- . Diaphragms for electrolyse are allowed until 1998/1999
- . The regulation contains an unlimited exemption from "zero exposure" for all asbestos removal work and for repairing asbestos containing buildings and machinery.
- On July 3, 1991, Germany has notified to the EEC Commission a draft regulation to phase out most of chrysotile containing products, with few exemptions mostly similar to those granted by the 1990's regulation (see above).

/...

Following the EEC procedure, the draft regulation has been notified by the Commission to the 11 Member States.

9 Member States considered that the German proposal would create barriers to trade, the EEC Commission has asked the German authorities to suspend the draft regulation, for a period of 12 months following the notification (i.e. 3 July, 1992).

- **LABELLING** (Gefahrstoff verordnung - Gefstoff V 1-10-86)
All asbestos products

■ **HEALTH REGULATIONS AT THE WORKPLACE**
ASBESTOS

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	0.25 f/ml	N.A.	N.A.	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES (N.A.)

■ **MEDICAL SURVEILLANCE AT THE WORKPLACE**

Surveillance responsibility	Med Exam	Frequency
Industry & any physicians	chest X-ray Lung function	N.A.

■ **PREVENTION OF ENVIRONMENTAL POLLUTION**

- . Air emissions (Technische Anleitung zur Reinhaltung der Luft 27/02/1986)

Asbestos Dust	Mixed Dust
0.1 mg/Nm ³	2 mg/Nm ³

- . Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate
N.A.	N.A.	N.A.	N.A.	NA	N.A.	N.A.

*mg/liter .

- . Waste (Abfallinfuhr - verordnung, 27/7/1979)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
All	yes	yes	yes

N.A. - Non Applicable

GREECE

■ RESTRICTIONS ON-USE OF-ASBESTOS AND-ASBESTOS PRODUCTS

- Law 1985-

Implementation of the 83/478/EEC directive provisions

■ LABELLING

Law 1985

All asbestos containing products

■ HEALTH-REGULATIONS AT THE WORKPLACE

ASBESTOS

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	0.5 f/ml	1 f/ml	
Action level	0.25 f/ml	0.25 f/ml	0.25 f/ml	0.25f/ml

OTHER FIBRES - (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry	chest X-ray Lung function	every 12 months

/..

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions (Decree 280/81-1981)

Asbestos Dust	Mixed Dust
2 f/cm ³ for chrysotile 0.2 f/cm ³ for crocidolite	

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A	N.A	N.A.

*mg/liter

. Waste (Decree 1-11-1985)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
Industrial waste only	no license needed	yes & other sites after authorizatio	no

N.A. - Non Applicable

INDIA

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

No prohibitions

■ LABELLING

Voluntary. All asbestos containing products with exceptions : Gland packings, compressed fibre paintings and proofed asbestos cloth.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	2 f/ml	2 f/ml	2 f/ml	f/ml
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES - (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry & Government	Chest X-Ray Lung Function	Every 6 months to every 3 years

/..

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A	N.A	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

INDONESIA

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

No prohibitions

■ LABELLING

N.A.

■ HEALTH REGULATIONS AT THE WORKPLACEASBESTOS

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	1 f/ml	1 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES - (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

IRELAND

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- No prohibitions
- Special requirements exist when crocidolite is involved, i.e. marking of containers, notifications to inspectors.

■ LABELLING

N.A.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Effective from 1984)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	0.5 f/ml	1 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES - (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry	Chest X-Ray	Every 1/2 years

/..

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions (Effective from 1st July 1991)

Asbestos Dust	Mixed Dust
0.1 mg/Nm ³	N.A.

. Water effluents (Effective from 1st July 1991)

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
30	N.A.	N.A.	N.A.	N.A	N.A	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. ~ Non-Applicable

ISRAEL

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

A person may not manufacture, import, sell or use asbestos in either of the following activities :

1. Spraying
2. Road paving
3. Air & gas filtration except filtration at $T > 340^{\circ}\text{C}$
4. Polishing and sharpening, renewing and adjustment, assembling and disassembling of clutch and brake linings, except for those vehicles and machines for which an exemption was given by the technical committee.
5. Clutch and brake linings

The following products are permissible for import manufacture, sell and use

1. Asbestos cement products : corrugated sheets, tiles, flat sheets, water tanks, pipes, chimneys and accessories to these items described; by import in the condition that the total weight of all these will not exceed 300 tons per year.
2. Asbestos paper : filters for liquids
3. Protective doors and partitions, and fire proof curtains
4. Gaskets for keeping pressure and for protection from heat, fire and corrosive materials in motors.
5. Raw material asbestos, in total quantity up to 6000 tons per year including a maximum quantity of 90 tons per year of blue asbestos (crocidolite).
6. Every asbestos product approved by the Technical Committee

■ LABELLING

- Compulsory for raw materials, voluntary for asbestos containing products.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Safety at work regulations, 3rd Amendment effective Nov. 25, 1990)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	0.4 f/ml	0.4 f/ml	0.4 f/ml	N.A.
Action level	0.1 f/ml	0.1 f/ml	0.1 f/ml	N.A.

/...

OTHER FIBRES (Amendment N°2 of the regulation N°4576
published 14 July, 1988)

Talc, Silica : Respirable dust less than 7µm; 0.1 mg/m3
Total dust ; 0.3 mg/m3

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry	Lung Function Chest X-Ray	Every 1/2 years

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

ITALY

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- Technical Instruction N° 157 9-07-1986
The use and marketing of crocidolite and crocidolite containing product is forbidden with the following exceptions till 30/04/1991
 - . A/C pipes for purposes other than carrying drinking water
 - . Acid and temperature resisting seals, gaskets and compensators
 - . Torque convectors
- Decree DPR 215 24-5-1988
Implementation of the EEC Directives (83/478 and 85/610) provisions within the national legislation

■ LABELLING (DPR 215, 24-5-1988)

All products containing asbestos or the packaging thereof shall bear the EEC label

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (30/06/84, National Contract Asbestos industry and Trade Union)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	0.5 f/ml	1 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

/...

OTHER FIBRES (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry	Lung Function Chest X-Ray	N.A.

■ PREVENTION OF ENVIRONMENTAL POLLUTION

- . Air emissions (No specific asbestos regulations, but state law for all industries)

Asbestos Dust	Mixed Dust
N.A.	0.3 mg/Nm ³

- . Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

- . Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

JAPAN

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

No prohibitions

■ LABELLING

All products containing 5% or more asbestos content

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Voluntary, effective from 1st April 1991)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml		0.5 f/ml	
Action level	0.5 f/ml		0.2 f/ml	

OTHER FIBRES (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry	Chest X-Ray	Every 6 months

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

* asbestos : 10 f/liter

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
200	0.5-1	N.A.	0.5	N.A	5.8-8.6	N.A.

*mg/liter

. Waste (no specific-regulation)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
Demolition Ind.	yes	yes	N.A.

N.A. - Non Applicable

KENYA

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

No prohibitions

■ LABELLING

N.A.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	N.A.	N.A.	N.A.	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

- . Air emissions (The implementation of ILO Convention 162 is planned)

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr***	T°C	PH	Discharge rate M³/ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

MEXICO

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

No prohibitions

■ LABELLING

N.A.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Effective from 4th April, 1991)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	2 f/ml	2 f/ml	2 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry and Government	Chest X-Ray Lung Function Full Med Exam	Every 12 months

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions (The implementation of ILO Convention 162 is planned)

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr***	T°C	PH	Discharge rate M³/ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

- .. Waste (6/6/1988)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
Industrial	yes	yes	

- N.A. - Non Applicable

NETHERLANDS

■ **RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS**

- Royal Decree 269, 1-04-1977
The use and marketing of crocidolite and crocidolite containing product is forbidden.
- Royal Decree 560, 22-11-1988
Implementation of the 83/478/EEC and 85/610/EEC directives

■ **LABELLING** (Royal Decree 560, 22-11-1988)

All asbestos products

■ **HEALTH REGULATIONS AT THE WORKPLACE**

ASBESTOS (Royal Decree 560, 22-11-1988)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	0.5 f/ml	1 f/ml	N.A.
Action level	0.25 f/ml	0.25 f/ml	0.25 f/ml	0.25f/ml

OTHER FIBRES (N.A.)

■ **MEDICAL SURVEILLANCE AT THE WORKPLACE**

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION (Royal Decree 592, 12 12-1989)

. Air emissions

Asbestos Dust	Mixed Dust
0.1 mg/Nm ³	N.A.

. Water effluents (Water Pollution Act 27/12/1988)

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
<30	(1)	N.A.	(2)	N.A	5-9	N.A.

*mg/liter

(1) (2) Forbidden on open water. Only allowed via water purification plant

. Waste (Chemical waste reg. 11-2-1976)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
waste containing more than 0.5% asbestos	No	Special licensed waste dump	Transborder shipping waste is forbidden

N.A. - Non Applicable

NEW ZEALAND

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- Use of crocidolite and amosite is prohibited

■ LABELLING

- Voluntary on asbestos-cement products

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Effective from 1st April 1984)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	0.1 f/ml	0.1 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES - (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	

N.A. - Non Applicable

NIGERIA

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- Ban on importation of crocidolite fibres

■ 'LABELLING

- Voluntary on asbestos-cement products

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (In preparation)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	N.A.	N.A.	N.A.
Action level	0.25 f/ml	N.A.	N.A.	N.A.

OTHER FIBRES - (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE (Voluntary)

Surveillance responsibility	Med Exam	Frequency
Industry	Chest X-Ray Lung Function	Every two years

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton:
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste (regulation under preparation)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
Industrial	yes	yes	no

N.A. -- Non Applicable

NORWAY

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

(Workers protective Act, Section 56, effective from 1st July 1986)

- It is forbidden to import and to sell any asbestos containing product without government permission.

■ LABELLING

- All asbestos containing products

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Workers Protective act, section 56 of 1st July 1980)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	N.A.	N.A.	N.A.	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES - (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr***	T°C	PH	Discharge rate M ³ /ton.
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

PORTUGAL

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- Decree law 28/87, 14/1/87, 138/88, 22/04/1988
Implementation of the EEC directives in the national legislation
- Decree law 284/89, 24/28/89
The use and marketing of crocidolite and crocidolite containing products is prohibited
- Spraying of asbestos is prohibited

■ LABELLING

- All asbestos containing products

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Decree LAW 284-89, 29/08/89)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	0.5 f/ml	1 f/ml	N.A.
Action level	0.25 f/ml	0.25 f/ml	0.25 f/ml	0.25f/ml

OTHER FIBRES - (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions (regulations in preparation)

Asbestos Dust	Mixed Dust
0.1 mg/M ³	N.A.

. Water effluents (Decree Law 74-90, 7/08/1990)

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr***	T°C	PH	Discharge rate M ³ /ton
<60	<5	<15	<0.1	N.A	6-9	N.A.

*mg/liter

. Waste (Decree Law 488-85, 25/11/85; Law 11-87, 7/4/87, Regulation 374-87, 4 May 84)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
manufacturing	no licenced contractors	yes	no

N.A. - Non Applicable

SOUTH AFRICA

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- No prohibition

■ LABELLING

- All asbestos products

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	(a) f/ml	(a) f/ml	(a) f/ml	N.A.
Action level	0.25 f/ml	0.25f/ml	0.25f/ml	N.A.

(a) 2f/ml for mining and milling and 1 f /ml for manufacturing

OTHER FIBRES - (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry	Chest X-Ray Lung Function	

/..

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

SAUDI ARABIA

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- Import of crocidolite and amosite and products containing them is prohibited

■ LABELLING

- N.A.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Draft regulation N°4237, August 1990)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	0.5 f/ml	0.2f/ml	0.2 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES (Draft Regulations N°4237)

- All fibres : 0.2 f/ml

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/..

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A	N.A	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

SINGAPORE

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- No prohibitions

■ LABELLING

- N.A.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Effective from 15 May 1980).

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	2 f/ml	2 f/ml	2 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	Every year

/..

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

SPAIN

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

Decree 31/10/1984:

- The use of crocidolite is prohibited since 1st Jan. 1987

■ LABELLING

- N.A.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Decree 31/10/1984)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	prohibited	1 f/ml	AX+BY
Action level	0.25 f/ml	N.A.	0.25 f/ml	0.25f/ml

OTHER FIBRES (N.A.)

■ MEDICAL SURVEILLANCE AT THE WORKPLACE (Decree 13/3/63, 21/8/78, 31/10/84)

Surveillance responsibility	Med Exam	Frequency
Industry & any physicians	chest X-ray Lung function	Each year

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺ **	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A	N.A	N.A.

*mg/liter

. Waste (Royal Decree 833/1988 20/07/1988)

Type of asbestis Waste concerned	Transp. by Licenced Contractors	Industrial Dumping Site required	Restriction on Imp/Exp
no specifications	Yes	Yes	Yes

N.A. - Non Applicable

SWEDEN

■ **RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS**

- The regulation calls for a principal ban of asbestos and asbestos-containing products. There are careful instructions for use where asbestos and asbestos-containing products are authorised
- Use of asbestos and asbestos-containing products may be allowed where no technically feasible substitutes are available but only after approval has been obtained from the Authorities.
- Use of Crocidolite is forbidden.

■ **LABELLING**

- All asbestos containing products

■ **HEALTH REGULATIONS AT THE WORKPLACE**

ASBESTOS (AFS 1984, effective from 1st January 1985)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	0.5 f/ml	N.A.	N.A.	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES

- Synthetic inorganic fibres : 1 f/ml

■ **MEDICAL SURVEILLANCE AT THE WORKPLACE**

Surveillance responsibility	Med Exam	Frequency
Industry	Chest X-Ray Lung Function	Every 5 years

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

SWITZERLAND

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- Government regulation of 9th January 1986
(Stoffverordnung) amended on 11th January 1989.
- Phasing out of asbestos and asbestos containing products are required
- Exemptions for the following products :
 - . Flat sheets and long corrugated until 1st January 1991
 - . Sanitary pipes until 1st January 1991
 - . Sewer and pressure pipes until 1st January 1995

■ LABELLING

- Voluntary. All asbestos containing products

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (Effective from 1st January 1984)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	1 f/ml	1 f/ml	1 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES

- N.A.

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Government approval physicians	Chest X-Ray Lung Function	N.A.

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
N.A.	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton'
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

N.A. - Non Applicable

USA

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- On October 21, 1991 the Fifth Grant US Court of Appeals has struck down the US Environmental Protection Agency's (EPA) 1989's ban on the manufacture of asbestos containing products in the United States.

The Court said that "We conclude that the EPA has presented insufficient evidence to justify its asbestos ban. We base this conclusion upon two grounds : the failure of the EPA to consider all necessary evidence and its failure to give adequate weight to statutory language requiring it to promulgate the least burdensome, reasonable regulation to protect the environment adequately."

■ LABELLING

- All asbestos containing products, raw material and waste.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS (OSHA, 21 July, 1986)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV -	0.2 f/ml	0.2 f/ml	0.2 f/ml	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

- On 20 July, 1990 OSHA conducted supplemental rulemaking to reduce the PEL (Permissible Exposure Limit) down to 0.1 f/ml

OTHER FIBRES

- N.A.

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
Industry	Chest X-Ray Lung Function	N.A.

/...

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions (NESHAPS, 40 CFR61, 1973)

Asbestos Dust	Mixed Dust
No visible emissions	N.A.

. Water effluents (Federal Water Bulletin Control Act 40 CFR 427)

Suspended matters*	Heavy metal metal	Hydrocarb	Cr ⁶⁺	T°C	PH	Discharge rate M ³ /ton
0.01-0.35	N.A.	N.A.	N.A.	6-9	N.A	N.A.

*kg/kkg of product average of daily value for 30 consecutive

. Waste (ANES, 40 CFR 61, 14/10/1975)

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
containing >1% asbestos	no	yes	N.A.

N.A. - Non Applicable

USSR

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- No prohibitions

■ LABELLING

(Voluntary) Raw Asbestos

■ HEALTH REGULATIONS AT THE WORKPLACEASBESTOS

- . 2 mg/m³ : dust containing serpentine rock with more than 10% chrysotile, anthophyllite or dust containing asbestos alternatives (milling manufacture of asbestos card bound, asbestos manufacture preparatory process for manufacture of A/C, rubber bitumen articles.
- . 6 mg/m³ : A/C dust
- . 8 mg/m³ : Asbestos reinforced plastic resin and asbestos rubber dust

OTHER FIBRES

- N.A.

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/..

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions (1954)

Asbestos Dust	Mixed Dust
N.A.	0.5 mg/Nm3

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
N.A.	N.A.	N.A.	N.A.

..N.A. - Non Applicable

ZIMBABWE

■ RESTRICTIONS ON USE OF ASBESTOS AND ASBESTOS PRODUCTS

- No prohibitions

■ LABELLING

- N.A.

■ HEALTH REGULATIONS AT THE WORKPLACE

ASBESTOS

(Governmental Mining Regulations)

Limit Values	Chrysotile	Crocidolite	Amosite	Mixture
TLV	2 f/ml	N.A.	N.A.	N.A.
Action level	N.A.	N.A.	N.A.	N.A.

OTHER FIBRES

- N.A.

■ MEDICAL SURVEILLANCE AT THE WORKPLACE

Surveillance responsibility	Med Exam	Frequency
N.A.	N.A.	N.A.

/..

■ PREVENTION OF ENVIRONMENTAL POLLUTION

. Air emissions

Asbestos Dust	Mixed Dust
0.5f/cm ³	N.A.

. Water effluents

Suspended matters*	Heavy metal metal*	Hydrocarb *	Cr ⁶⁺⁺	T°C	PH	Discharge rate M ³ /ton
N.A.	N.A.	N.A.	N.A.	N.A	N.A	N.A.

*mg/liter

. Waste

Type of asbestos Waste concerned	Transport by licensed contractors	Industrial Dumping Site required	Restriction on Imp/Exp
Industrial	Yes	Yes	N.A.

N.A. - Non Applicable