

NATIONAL PROFILE on Chemicals Management JAPAN

Inter-Ministerial Meeting on IFCS

Ministry of Foreign Affairs
Ministry of Health, Labour and Welfare
Ministry of Agriculture, Forestry and Fisheries
Ministry of Economy, Trade and Industry
Ministry of the Environment

National Profile on Chemicals Management

JAPAN

October 2003

Inter-Ministerial Meeting on IFCS

Ministry of Foreign Affairs (MOFA)
Ministry of Health, Labour and Welfare (MHLW)
Ministry of Agriculture, Forestry and Fisheries (MAFF)
Ministry of Economy, Trade and Industry (METI)
Ministry of the Environment (MOE)



CONTENTS

INTRODUCTION	vii
SUMMARY	ix
CHAPTER 1	
BACKGROUND INFORMATION	1
1.1. Population and other statistics, etc	1
1.1.1. Geography	1
1.1.2. Official language and education system	2
1.1.3. Population	2
1.1.4. Average life expectancy	
1.1.5. Working population and rate of unemployment	5
1.2. Political structure	6
1.2.1. Form of government	6
1.2.2. The number of local public authorities	7
1.2.3. The state of local public authorities and decentralisation	7
1.3. The manufacturing and agricultural sectors	8
1.4. Employment in the major economic sectors	9
CHAPTER 2	
PRODUCTION, IMPORT, EXPORT AND DISPOSAL OF CHEMICALS	10
2.1. Production, import and export of chemicals	
2.2. Waste	
2.2. Waste	
CHARTER	
CHAPTER 3	
ISSUES REGARDING THE PRODUCTION, IMPORT, EXPORT AND USE OF CHEMICALS	1.0
USE OF CHEMICALS	18
CHAPTER 4	
LAWS/REGULATIONS AND OTHER LEGAL FRAMEWORK FOR THE	
MANAGEMENT OF CHEMICAL SUBSTANCES.	21
4.1. Overview of laws for the management of chemical substances	21
4.2. Laws on the control of substances beginning with their import, production to disposal.	26
4.3. Overview of the main measures and procedures for chemical management	28
4.3.1. Notification, etc. Under the Law Concerning the Evaluation of Chemical	
Substances and Regulation of Their Manufacture, etc.	28

4.3.2. Notification, etc. Under the Law Concerning Reporting, etc. of Releases to the	
Environment of Specific Chemical Substances and Promoting Improvements in	
Their Management	30
4.3.3. Response to the PIC Convention	31
4.3.4. Response to the POPs Convention	31
4.3.5. Response to the AFS Convention	31
4.4. Examples of voluntary activities for management of chemical substances other than	
laws and regulations	32
CHAPTER 5	
MINISTRIES AND OTHER GOVERNMENT ORGANISATIONS	
RELATED TO THE MANAGEMENT OF CHEMICAL SUBSTANCES	35
CHAPTER 6	
ACTIVITIES BY INDUSTRY ASSOCIATIONS, PUBLIC ORGANISATIONS	
AND RESEARCH INSTITUTES	
6.1. Related organisations and their activities	
6.1.1. Chemical industry associations	
6.1.1.1. Vinyl Environmental Council (VEC)	39
6.1.1.2. Kaseihin Kogyo Kyokai (Japan Dyestuff & Chemical Industry Association)	39
6.1.1.3. Japan Plasticizer Industry Association (JPIA)	40
6.1.1.4. Japan Petrochemical Industry Association (JPCA)	
6.1.1.5. Japan Surfactant Industry Association	40
6.1.1.6. Japan Chemical Industry Association (JCIA)	41
6.1.1.7. Japan Chemical Exporters' Association (JCEA) and the Japan Chemical	
Importers' Association (JCIA)	41
6.1.1.8. Federation of Pharmaceutical Manufacturers' Association of Japan	
(FPMAJ)	42
6.1.1.9. Japan Soap and Detergent Association (JSDA)	
6.1.1.10. Japan Soda Industry Association (JSIA)	42
6.1.1.11. Japan Paint Manufacturers Association (JPMA)	43
6.1.1.12. Japan Plastics Industry Federation (JPIF).	43
6.1.1.13 Japan Aromatic Industry Association (JAIA)	43
6.1.1.14. Japan Inorganic Chemical Industry Association (JICIA)	44
6.1.1.15. Japan Crop Protection Association (JCPA)	44
6.1.2. Public organisations and research institutes	44

(JETOC)	44
6.1.2.2. Japan Industrial Safety and Health Association (JISHA)	45
6.1.2.3. Japan Bioassay Research Center (JBRC)	
6.1.2.4. Hatano Research Institute, Food and Drug Safety Center (FDSC)	
6.1.2.5. Food, Agricultural Chemicals and Drug Safety Evaluation Centre	
(An-Pyo Centre)	45
6.1.2.6. Institute of Environmental Toxicology	45
6.1.2.7. Chemicals Evaluation and Research Institute, Japan (CERI)	46
6.1.2.8. Japan Chemical Innovation Institute (JCII)	
6.1.2.9. Center for Environmental Information Science (CEIS)	46
6.2. Overview of available specialised knowledge other than governments	46
CHAPTER 7	
COORDINATION AND COOPERATION STRUCTURE AMONG	
GOVERNMENT MINISTRIES AND AGENCIES, ETC	47
7.1. Coordination and cooperation structure among government ministries and	
agencies, etc.	47
7.2. Details on the coordination and cooperation structure among ministries and	
agencies, etc.	49
7.2.1. Inter-Ministerial Directors' Committee for Cooperation on Endocrine	
Disrupting Chemicals	49
7.2.2. Inter-Ministerial Meeting on Indoor Air Pollutants	50
7.2.3. Council of Ministries and Agencies on Dioxin policy	51
7.2.4. Inter-Ministerial Meeting on High Production Volume (HPV) Chemicals	51
7.2.5 Inter-Ministerial Meeting on Good Laboratory Practice (GLP)	51
7.2.6. Inter-Ministerial Meeting on GHS	52
7.2.7. Inter-Ministerial Meeting on Intergovernmental Forum for Chemical Safety	
(IFCS)	52
7.2.8. Inter-Ministerial General Directors' Meeting on the Stockholm Convention	1
on Persistent Organic Pollutants	52
7.2.9. Inter-Ministerial Conference on the Prevention of Illegal Traffic of Wastes .	52
7.3. System to obtain opinions and information experts, private organisations, etc	
CHAPTER 8	
ACCECC TO DATA AND THEIR LITH ICATION	F 4

6.1.2.1. Japan Chemical Industry Ecology-Toxicology and Information Center

8.2. Procedures for the collection and dissemination of data	57
8.3. Chances to use international documents	8
8.4. Possibilities to use international databases	;9
8.5. Information exchange systems.	;9
CHAPTER 9	
TECHNOLOGICAL INFRASTRUCTURE	50
9.1. Overview of the research infrastructure	50
9.2. Overview of the future prospects of the electronic information system in government	
agencies	50
9.3. Overview of technical training and education programmes	60
CHAPTER 10	
INTERNATIONAL COOPERATION	52
10.1. Cooperation and involvement with international organisations, groups	
and agreements6	
10.2. Participation in appropriate technological assistance projects	53
CHAPTER 11	
RAISING AWARENESS AND PROMOTE UNDERSTANDING OF MANAGEMENT OF	
CHEMICAL SUBSTANCES AMONG WORKERS AND THE PUBLIC6	55
11.1. Workers6	55
11.1.1. Responsibilities of employers regarding education, etc. of workers	55
11.1.1.1. Appointment of operations chiefs6	55
11.1.1.2. Implementation of safety and health education, etc.	55
11.1.1.3. Implementation of education at work6	55
11.1.1.4. Labelling and notification of chemical substances6	56
11.1.1.5. Dissemination of the content of MSDS6	6
11.1.1.6. Measures based on the guideline for chemical substances management6	6
11.1.2. Projects for raising awareness of chemical substances	56
11.1.2.1. Japan Advanced Information Centre of Safety and Health (JAISH)6	56
11.1.2.2. National Institute of Health Sciences (NIHS)	57
11.1.2.3. Japan Small and Medium Enterprise Corporation (JASMEC)6	57
11.1.2.4. Center for Environmental Information Science (CEIS)	57

11.2. The public
CHAPTER 12
AVAILABLE AND NECESSARY RESOURCES FOR CHEMICAL MANAGEMENT68
12.1. Available and necessary resources at government organisations
12.2. Indispensable resources at government organisations to assume responsibility of
the chemical substance management
ANNEX 1
GLOSSARY71
ANNEX 2
REPORTS AND ARTICLES SERVING AS USEFUL REFERENCE FOR
CHEMICAL SUBSTANCES MANAGEMENT
ANNEX 3
NAMES AND ADDRESSES OF IMPORTANT ORGANISATIONS75
ANNEY 4
ANNEX 2 REPORTS AND ARTICLES SERVING AS USEFUL REFERENCE FOR CHEMICAL SUBSTANCES MANAGEMENT

Introduction

The United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit, that was held in 1992 in Rio de Janeiro adopted Agenda 21, an action plan for the 21st century. The Intergovernmental Forum on Chemical Safety (IFCS) is a forum established with the goal of seeking cooperation among governments in order to achieve the implementation of Chapter 19 of Agenda 21, "Environmentally Sound Management of Toxic Chemicals, including Prevention of Illegal International Traffic in Toxic and Dangerous Products." Approximately 100 countries participate in the IFCS and its objective is to promote international chemical safety management.

The goals for action in regard to chemical management based on Agenda 21 are largely classified in six programme areas, as follows:

- (a) Expanding and accelerating international assessment of chemical risks:
- (b) Harmonisation of classification and labelling of chemicals;
- (c) Information exchange on toxic chemicals and chemical risks;
- (d) Establishment of risk reduction programmes;
- (e) Strengthening of national capabilities and capacities for management of chemicals;
- (f) Prevention of illegal international traffic in toxic and dangerous products.

The development of a National Profile on Chemicals Management was recognised as one of the Priorities for Action of programme area E at the Forum I held at Stockholm, Sweden in 1994. Also the Bahia Declaration on Chemical Safety was adopted by the IFCS at its Forum III held at Salvador, Brazil in 2000. In this declaration, a future goal was included most of the countries should develop a National Profile.

The Government of Japan has actively participated in

the Forums, and hosted the Intersessional Group III in 1998 in Yokohama. Moreover, at the Forum III, Japan was elected for the IFCS Vice President, and thus organized the 2002 Asia-Pacific Regional Conference of IFCS held at Tokyo in October 2002. Japan played an active role as the chair, and priority issues for the Region and the measures to present those issues were identified and compiled in the Conference.

As for a National Profile, the Editorial Committee for National Profile, mainly comprised of the ministries participating in the Inter-Ministerial Meeting on IFCS was established in May 2002. The Editorial Committee members actively collaborated, and herewith finalised Japan's National Profile, with reference to the guidance document of the United Nations Institute for Training and Research (UNITAR).

The scope of this Profile is describing the facts that the ministries participating in the Inter-Ministerial Meeting on IFCS are mainly involved.

This Profile is the first "challenge" to comprehensively describe the chemical management system in Japan. I sincerely hope that this Profile could be a useful reference material not only for people concerned in Japan, but also for those in foreign countries, particularly, developing countries, in their efforts of chemical management.

Finally, I would highly appreciate the all who contributed to editing this Profile.

October 2003

Sadao Nakao Vice President (Asia and Pacific Region) Office of Chemical Safety Pharmaceutical and Food Safety Bureau Ministry of Health, Labour and Welfare

Summary

The scope of this Profile is describing the facts that the ministries participating in the Inter-Ministerial Meeting on IFCS are mainly involved.

CHAPTER 1 provides general information on Japan.

- The area of Japan is approximately 378,000 km²; it is situated in the sea east of the Asian continent, and has no direct connection to other countries via land routes.
- The national language is Japanese, and the literacy rate is almost 100%. Six years of elementary school and three years of junior high school are compulsory. The advancement ratio to senior high school is more than 90%, and to such higher education as college approximately 50% (as of 2001).
- The total population is approximately 127 million people (2000, *Report on National Census*).
- The average life expectancy is 77.6 years for men and 84.6 years for women (2000, *Life Expectancies at Birth, Abridged Life Tables for Japan 2001*).
- The number of people of working age is approximately 86.2 million (2000, *Report on National Census*). The unemployment rate is 5.0% (2001, *Labour Force Survey*).
- The form of government is a parliamentary government system.
- The number of local authorities is 47 prefectures, 675 cities, 1,981 towns and 562 villages (as of April 2002). The fundamental principle of local autonomy is set in the Local Autonomy Law.
- Manufacturing and agricultural sectors respectively contribute 21.9% and 1.4% to gross domestic product (GDP)(2000, *Annual National Accounts*) and respectively employ 12.994 million people and 260,000 people (1996, *Establishment And Enterprise Census*).

CHAPTER 2 provides a general overview of the production, import, export and disposal of chemicals.

- Various kinds of chemicals are produced in Japan. In

- terms of annual production amount, industrial organic chemicals make up the largest share with 34.9 million tons, followed by high compressed gases, plastic materials, industrial inorganic chemicals and pigments, aromatic hydrocarbons and coal tar (*Yearbook of Chemical Industries Statistics 2001*).
- Many kinds of chemicals are also imported as well as exported. In terms of annual import/export amount of industrial organic chemicals make up the largest share with approximately 4.51 million tons of import and approximately 8.71 million tons of export (*Customs Statistics* 2001).
- Industrial waste amounts to approximately 400 million tons a year, of which approximately 1 million tons are Specified Hazardous Industrial Wastes (1999, Survey conducted by the Ministry of the Environment (MOE)).
- The volume of import and export of hazardous waste known based on the related domestic law to the Basel Convention is 1,515 tons and 4,326 tons respectively (2001, The Implementation Status of the Law for the Control of Export, Import and Others of Specified Wastes and Other Wastes in 2000).

CHAPTER 3 provides a general overview of issues regarding damage to human health among those of production, import, export and use of chemicals.

- Death cases caused by chemical substances amount to 647 in 2001. The most cases were due to accidents of exposure to and intoxication with gases or vapours (excluding organic solvents and halogenated hydrocarbons and their vapours), and counted 201 (2001, *Vital Statistics for Population*).
- For accidents involving chemicals, such as explosions and fires, around of 10 cases per year are reported to the Ministry of Economy, Trade and Industry (METI).

CHAPTER 4 provides a general overview of the laws and

regulations (under the jurisdictions of the Ministry of Health, Labour and Welfare (MHLW), the Ministry of Agriculture, Forestry and Fisheries (MAFF), the Ministry of Economy, Trade and Industry (METI), and the Ministry of the Environment (MOE)) for chemical management, procedures based on these laws and regulations, responses to conventions and examples of measures other than laws and regulations.

- As for frameworks other than laws and regulations, this chapter introduces voluntary activities by industries such as, Responsible Care programme, voluntary management plans by businesses regarding reduction of hazardous air pollutants.

CHAPTER 5 provides a general overview of mandates of the related divisions and offices of the Ministry of Health,
Labour and Welfare (MHLW), the Ministry of Agriculture,
Forestry and Fisheries (MAFF), the Ministry of Economy,
Trade and Industry (METI) and the Ministry of the
Environment (MOE), as well as the services of incorporated administrative agencies.

CHAPTER 6 provides a general overview of activities by chemical industry associations, public organisations and research institutes.

CHAPTER 7 provides a general overview of the coordination and cooperation structure among ministries and agencies, etc.

- Various inter-ministerial meetings, etc. have been established in order to effectively and efficiently promote varied measures regarding chemical substances.
- As for frameworks to obtain opinions from experts and information from private organisations, etc., advisory councils are being established by government institutions, and there are also public comment procedures inviting public opinion.

CHAPTER 8 provides a general overview of the access to data and their utilisation.

- The relevant data is available through databases managed by governmental institutions, public organisations, etc. as well as the homepages of relevant ministries. A large part of these data are accessible via the Internet. However, some of them are only available in Japanese.
- A large number of international documents such as Environmental Health Criteria (EHC), Concise International Chemical Assessment Documents (CICAD) can be accessed via the Internet. Part of these is available in Japanese.
- International databases such as ILO/CIS are available via the Internet.

CHAPTER 9 provides a general overview of the technological infrastructure.

- As for research infrastructure, the National Institute of Health Sciences (NIHS) and the National Institute of Advanced Industrial Science and Technology (AIST) are introduced among others.
- The government is actively promoting the computerisation of administration, and undertakes computerisation of the notification of new chemicals based on the Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; registration of business establishments handling or importing poisonous and deleterious substances based on the Poisonous and Deleterious Substances Control Law, and notification by businesses regarding amounts of emission and transfer based on the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management.
- As for training and education programmes, training for officials in charge of implementing the Law Concerning Reporting, etc. of Releases to the Environment of Specific

Chemical Substances and Promoting Improvements in Their Management, as well as chemical substances administration programmes for employees of local public organisations are undertaken.

CHAPTER 10 provides a general overview of international cooperation.

- For each of the relevant international organisations, focal points are nominated. Information is exchanged through those focal points.
- Japan has joined several international conventions regarding chemical management such as the Stockholm Convention on Persistent Organic Pollutants (POPs Convention).
- As for technological assistance projects, among others the ASEAN Seminar for workers for chemical producing companies has been held.

CHAPTER 11 provides a general overview of raising awareness and promoting understanding among workers and the public.

- The obligations of business owners regarding the training of workers are stipulated in the Industrial Safety and Health Law and related regulations.
- Regarding the management of chemical substances in the workplace, the Guidelines for the Necessary Measures to Prevent Health Impairments of Workers Due to Chemical Substances, etc. were established. The objectives of the Guidelines are to promote the voluntary management of chemical substances by business owners and contribute to the prevention of health damage among workers.
- The Japan Advanced Information Center of Safety and Health and other organisations are active in raising awareness of chemicals.
- Raising the public's awareness of chemical substances is taking place through a variety of methods such as lectures, distribution of pamphlets, and publication via the Internet.

CHAPTER 12 describes available resources at government organisations and the number of officials at their relevant divisions and offices.

ANNEX 1 provides a glossary of terms used in this document.

ANNEX 2 contains major reports and manuals published or supervised by the Ministry of Health, Labour and Welfare (MHLW), the Ministry of Agriculture, Forestry and Fisheries (MAFF), the Ministry of Economy, Trade and Industry (METI) and the Ministry of the Environment (MOE).

ANNEX 3 provides the names and addresses of important organisations.

ANNEX 4 provides the abbreviations used in this document.

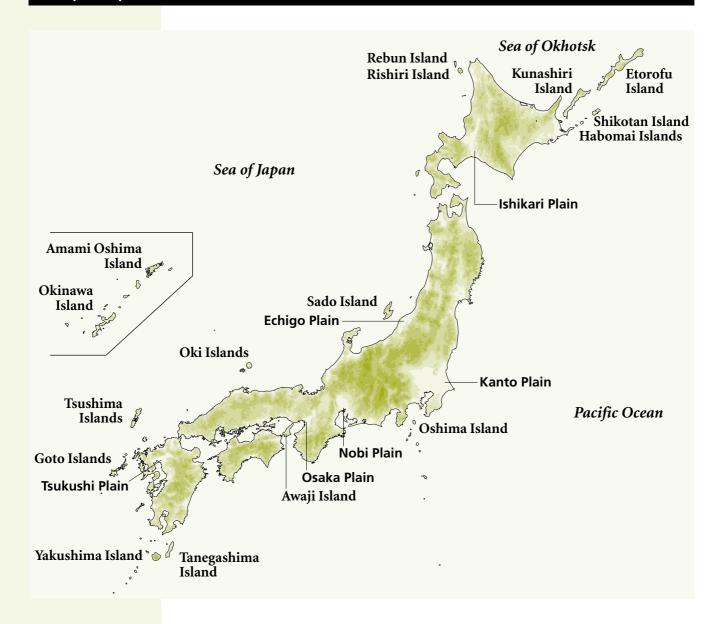
Background information

1 Related organisations and their activities

1.1 Geography

The area of Japan is approximately 378,000 km², and it is situated in the sea east of the Asian continent. With the Pacific Ocean to the east, the Sea of Japan to the west, the Sea of Okhotsk to the north and the East China Sea to the south, Japan has no direct connection to other countries via land routes. Japan consists of the four large islands of—from north to south—Hokkaido, Honshu, Shikoku and Kyushu, and approximately 3,000 smaller islands. About 300 of these islands are inhabited.

Diagram 1-1 Map of Japan



1

1.2 Official language and education system

Japan's official language is Japanese, and literacy rate is almost 100%. Six years of elementary school and three years of junior high school are compulsory, and 94% (as of 2001) of full-day students continue to secondary education, a rate that rises to 97.3% when day/evening and correspondence courses (regular courses) and upper secondary special training colleges are included (as of 2001). The advancement ratio of students to higher education (universities and all other institutes and courses of higher education) is 49.3% (as of 2001), a rate which rises to 71.8% when students advancing to degree courses in correspondence colleges, the University of the Air or specialised training colleges are included.

(Source: Homepage of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) – http://www.mext.go.jp/b_menu/toukei/index.htm)

1.3 Population

The total population of Japan is approximately 127 million people, of which approximately 99.9 million people (79%) live in urban areas and approximately 27.1 million people (21%) live in rural areas (as of 2000).

Table 1-1

Total population and age composition

VEAD		POPULATION (I	JNIT: 1,000 PERSONS)	PROPORTION (%)			
YEAR	TOTAL NUMBER	0-14 YEARS	15-64 YEARS	65 YEARS AND OVER	0-14 YEARS	15-64 YEARS	65 YEARS AND OVER	
1920	55,963	20,416	32,605	2,941	36.5	58.3	5.3	
1925	59,737	21,924	34,792	3,021	36.7	58.2	5.1	
1930	64,450	23,579	37,807	3,064	36.6	58.7	4.8	
1935	69,254	25,545	40,484	3,225	36.9	58.5	4.7	
1950	84,115	29,786	50,168	4,155	35.4	59.6	4.9	
1955	90,077	30,123	55,167	4,786	33-4	61.2	5.3	
1960	94,302	28,434	60,469	5,398	30.2	64.1	5.7	
1965	99,209	25,529	67,444	6,236	25.7	68.0	6.3	
1970	104,665	25,153	72,119	7,393	24.0	68.9	7.1	
1975	111,940	27,221	75,807	8,865	24.3	67.7	7.9	
1980	117,060	27,507	78,835	10,647	23.5	67.3	9.1	
1985	121,049	26,033	82,506	12,468	21.5	68.2	10.3	
1990	123,611	22,486	85,904	14,895	18.2	69.5	12.0	
1995	125,570	20,014	87,165	18,261	15.9	69.4	14.5	
2000	126,926	18,472	86,220	22,005	14.6	67.9	17.3	

Source: Report on National Census, Statistics Bureau, Ministry of Public Management, Home Affairs, Posts and Telecommunications. Note: Persons whose ages are unknown have been included in the total numbers since 1975.

Table 1-2
Urban and rural population

YEAR	POPULATION	POPULATION IN						
YEAK	POPULATION	URBAN AREAS	(%)	RURAL AREAS	(%)			
1920	55,963,053	10,096,758	18	45,866,295	82			
1925	59,736,822	12,896,850	22	46,839,972	78			
1930	64,450,005	15,444,300	24	49,005,705	76			
1935	69,254,148	22,666,307	33	46,587,841	67			
1940	73,114,308	27,577,539	38	45,536,769	62			
1945	71,998,104	20,022,333	28	51,975,771	72			
1947	78,101,473	25,857,739	33	52,243,734	67			
1950	84,114,574	31,365,523	37	52,749,051	63			
1955	90,076,594	50,532,410	56	39,544,184	44			
1960	94,301,623	59,677,885	63	34,622,465	37			
1965	99,209,137	67,356,158	68	31,852,979	32			
1970	104,665,171	75,428,660	72	29,236,511	28			
1975	111,939,643	84,967,269	76	26,972,374	24			
1980	117,060,396	89,187,409	76	27,872,987	24			
1985	121,048,923	92,889,236	77	28,159,687	23			
1990	123,611,167	95,643,521	77	27,967,646	23			
1995	125,570,246	98,374,289	78	27,195,957	22			
2000	126,925,843	99,865,289	79	27,060,554	21			

Source: Report on National Census, Statistics Bureau, Ministry of Public Management, Home Affairs, Posts and Telecommunications. Note: The population of Okinawa is not included in the figures for 1945 and 1947.

Urban area population refers to the population of cities (including the Tokyo metropolitan special districts). Rural area population refers to the total population of towns and villages.

1.4 Average life expectancy

In 2000, the average life expectancy was 77.6 years for men and 84.6 years for women.

Table 1-3
Average life expectancy in Japan

YEAR AGE	1936	1947	1952	1955	1965	1975	1985	1990	1995	2000
Men										
0	46.9	50.1	59.6	63.6	67.7	71.7	74.8	75.9	76.4	77.6
5	52.2	53.6	60.1	62.5	64.6	67.8	70.4	71.5	71.9	73.0
10	48.3	49.5	55.7	57.9	59.8	62.9	65.5	66.5	66.9	68.1
20	40.4	40.9	46.4	48.5	50.2	53.3	55.7	56.8	57.2	58.2
30	33.9	34.2	38.1	39.7	40.9	43.8	46.2	47.2	47.6	48.6
40	26.2	26.9	29.7	30.9	31.7	34.4	36.6	37.6	38.0	39.0
50	18.9	19.4	21.5	22.4	23.0	25.6	27.6	28.4	28.8	29.8
60	12.6	12.8	14.4	15.0	15.2	17.4	19.3	20.0	20.3	21.3
70	7.6	7.9	8.8	9.1	9.0	10.5	12.0	12.7	13.0	13.9
80	4.2	4.6	5.0	5.3	4.8	5.7	6.5	6.9	7.1	7.9
85	3.0	3.5	3.7	3.9	3.5	4.1	4.6	4.9	5.1	5.7
90	2.1	2.6	2.7	2.9	2.6	3.1	3.3	3.5	3.6	4.0
Women										
0	49.6	54.0	63.0	67.8	72.9	76.9	80.5	81.9	82.9	84.6
5	54.4	57-5	63.3	66.4	69.5	72.8	76.0	77.4	78.3	80.0
10	50.5	53.3	58.8	61.8	64.6	67.9	71.1	72.4	73.3	75.0
20	43.2	44.9	49.6	52.3	54.9	58.0	61.2	62.5	63.5	65.1
30	36.9	38.0	41.2	43.3	45.3	48.4	51.4	52.7	53.7	55.3
40	29.7	30.4	32.8	34.3	35.9	38.8	41.7	43.0	43.9	45.5
50	22.2	22.6	24.5	25.7	26.9	29.5	32.3	33.5	34.4	36.0
60	15.1	15.4	16.8	17.7	18.4	20.7	23.2	24.4	25.3	26.9
70	9.0	9.4	10.3	11.0	11.1	12.8	14.9	15.9	16.8	18.2
80	4.7	5.1	5.6	6.1	5.8	6.8	8.1	8.7	9.5	10.6
85	3.2	3.6	4.0	4.4	4.2	4.8	5.6	6.1	6.7	7.7
90	2.1	2.5	2.7	3.1	3.0	3.4	3.8	4.2	4.6	5.4
Source: Life L	Expectancies, Ab	ridged Life Table	s for Japan 2001	, Ministry of Hea	alth, Labour and	l Welfare (MHLV	V).			

4

1.5 Working population and rate of unemployment

The number of working age people (15 to 64 years) is approximately 86.2 million. The rate of unemployment in 2001 was 5.0% (as of 2000).

Table 1-4
Unemployment rate

YEAR						то	TAL UNEM	PLOYMENT	RATE (%)				
ILAN		OVERALL	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65YEARS
Men	1985	2.6	7.3	4.1	3.2	2.4	2.0	1.7	1.6	1.8	3.3	4.9	1.7
and	1990	2.1	6.6	3.7	2.7	1.9	1.6	1.4	1.2	1.2	2.0	3.5	0.8
women	1994	2.9	7.5	5.0	4.0	2.7	2.1	2.0	1.8	1.8	2.4	5.3	1.4
	1995	3.2	8.2	5.7	4.3	3.1	2.3	2.2	1.9	1.9	2.4	5.7	1.3
	1996	3.4	9.0	6.1	4.6	3.3	2.4	2.1	2.0	2.0	2.6	6.4	1.5
	1997	3.4	9.0	6.2	4.9	3.3	2.6	2.1	2.0	2.1	2.5	6.2	1.5
	1998	4.1	10.6	7.1	5.6	4.0	3.2	2.8	2.5	2.5	3.3	7.5	2.1
	1999	4.7	12.5	8.4	6.2	4.6	3.5	3.0	3.1	3.2	3.9	7.9	2.2
	2000	4.7	12.1	8.6	6.2	4.8	3.4	3.1	3.0	3.4	3.9	8.0	2.2
	2001	5.0	12.2	9.0	6.7	5.3	4.0	3.2	3.4	3.6	4.1	8.1	2.4
Men	1985	2.6	8.9	3.8	2.4	2.0	1.9	1.6	1.5	1.9	3.9	7.0	2.1
	1990	2.0	7.4	3.7	2.0	1.6	1.3	1.2	1.1	1.0	2.3	5.1	1.4
	1994	2.8	8.3	5.0	3.1	2.1	1.8	1.9	1.7	1.9	2.5	7.2	1.9
	1995	3.1	8.9	5.5	3.7	2.3	1.8	2.0	1.8	1.9	2.7	7.5	2.2
	1996	3.4	10.3	6.1	4.0	2.5	2.1	2.1	2.0	2.0	2.7	8.5	2.1
	1997	3.4	10.3	6.2	3.9	2.7	2.1	2.2	2.1	2.1	2.6	8.3	2.0
	1998	4.2	12.0	7.3	4.9	3.1	2.8	2.8	2.4	2.7	3.6	10.0	2.6
	1999	4.8	15.1	9.3	5.6	3.8	3.1	3.1	3.0	3.4	4.4	10.2	2.9
	2000	4.9	14.1	9.6	5.8	4.2	3.0	2.9	3.2	3.8	4.5	10.4	3.2
	2001	5.2	13.2	9.8	6.2	4.7	3.5	3.2	3.6	3.8	4.7	10.3	3.2
Women	1985	2.7	5.6	4.5	4.8	3.1	2.2	1.9	1.8	1.6	2.2	1.7	0.9
	1990	2.2	5.7	3.7	3.7	2.5	2.1	1.6	1.5	1.5	1.4	1.4	0.0
	1994	3.0	6.8	5.0	5.4	3.8	2.5	2.4	2.0	1.6	1.8	2.0	0.6
	1995	3.2	7.5	5.8	5.2	4.7	3.0	2.2	2.1	2.0	1.7	2.6	0.6
	1996	3.3	9.1	6.2	5.5	4.6	3.0	2.3	2.0	2.1	2.1	2.6	0.6
	1997	3.4	7.6	6.1	6.3	4.4	2.9	2.1	2.0	2.0	2.0	2.5	0.6
	1998	4.0	9.1	6.9	6.7	5.6	3.7	2.9	2.4	2,2	2.8	3.1	0.6
	1999	4.5	9.5	7.9	7.1	5.8	4.2	3.3	2.9	3.0	3.0	3.8	0.5
	2000	4.5	9.8	7.5	6.7	6.0	4.1	3.3	3.1	3.1	3.1	4.5	1.1
	2001	4.7	11.1	8.2	7.2	6.4	4.8	3.3	3.2	3.2	3.2	4.4	1.1
Source: Laho	Faura C		اء ا حاجاء ا حا		. IC (AALILA	40							

Source: Labour Force Survey, Ministry of Health, Labour and Welfare (MHLW).

2 Political structure

2.1 Form of government

The present Constitution came into effect on 3 May 1947. The Cabinet Law came into effect at the same time, and with it the present cabinet system was established. In other words, under the sovereignty of the nation the separation of the three powers of executive, legislature and judiciary is ensured thoroughly, and at the same time, under the basic framework of a two-house parliamentary cabinet system, the Cabinet was given the status of the main body of executive authority.

Diagram 1-2 The separation of the three powers under the Japanese Constitution

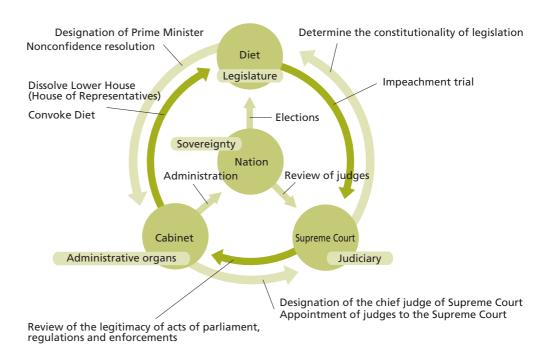


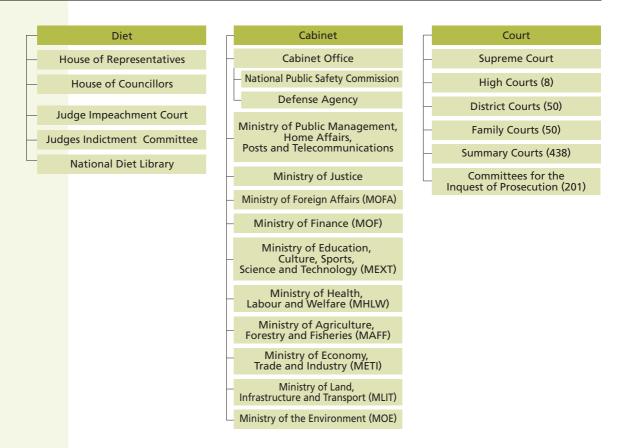
Table 1-5
The parliamentary cabinet system

Under the present Constitution, a parliamentary cabinet system has been adopted. With this system, the selection of the Prime Minister and other important requirements of the Cabinet rest on the confidence of the Diet, and this is stipulated clearly in the following passages of the Constitution:

- 1. The Prime Minister is to be designated from among the members of the Diet by a resolution of the Diet (Article 67, Paragraph 1).
- 2. The majority of Ministers of State must be chosen from among the members of the Diet (Article 68 Paragraph 1, Proviso).
- 3. The Cabinet is to be collectively responsible to the Diet in its exercise of executive power (Article 66, Paragraph 3).
- 4. The Cabinet requires the confidence of the House of Representative (Articles 69 and 70).

The Prime Minister is given the position of Head of the Cabinet, and representing the Cabinet.

Furthermore, under the Constitution, executive power is vested in the Cabinet. The Cabinet Office and 10 ministries established under the Cabinet exercise administration. Furthermore the committees and agencies established as external bureaus of the Cabinet Office.



Source: Homepage of the Prime Minister of Japan and his Cabinet (English: http://www.kantei.go.jp/foreign/constitution_and_government/frame_government.html)

1 2.2 The number of local public authorities

There are 47 prefectures, 675 cities, 1,981 towns and 562 villages in Japan. Thirty cities have been designated as major urban cities (as of April 2002).

2.3 The state of local public authorities and decentralisation

The fundamental principle of local autonomy is set in the Local Autonomy Law (Law No. 67 of 1947). In this law, apart from the formal and organisational framework of local public authorities, matters regarding administration are defined. Furthermore, the said law stipulates the fundamental relation between local authorities and the central government.

The manufacturing and agricultural sectors

Table 1-6 Overview of the manufacturing and agricultural sectors

SECTOR	1) CONTRIBUTION RATE TO GROSS DOMESTIC PRODUCT (2000) (UNIT: BILLION YEN)	2) NUMBER OF EMPLOYEES (1996) (1,000 PERSONS)
Manufacturing	110,927 (21.8%)	12,930 (20.6%)
Mining	636 (0.1%)	64 (0.1%)
Agriculture or agriculture, forestry and fisheries	6,996 (1.4%)	260 (0.4%)
Total	118,559 (23,3%)	13,254 (21.1%)

Sources: 1) Annual National Accounts, Cabinet Office; 2) Establishment And Enterprise Census, Ministry of Public Management, Home Affairs, Posts and Telecommunications.

Note: The definitions of manufacturing and agricultural sectors in each of the statistics vary.

Table 1-7
The structure of the manufacturing and agricultural sectors

SECTOR	MICRO BUSINESSES	SMALL-SCALE BUSINESSES	MEDIUM-SCALE BUSINESSES	LARGE-SCALE BUSINESSES
Manufacturing	654,354	99,670	13,623	4,259
	(84.8%)	(12.9%)	(1.8%)	(0.6%)
Agriculture, forestry and fisheries	17,771	3,263	154	5
	(83.9%)	(15.4%)	(0.7%)	(0.0 %)
Total of all sectors	6,129,552	523,698	51,654	12,121
	(91.3%)	(7.8%)	(0.8%)	(0.2%)

Source: Establishment and Enterprise Census, Ministry of Public Management, Home Affairs, Posts and Telecommunications.

Note: As of 10 October 1996, micro businesses are defined here as holding between 1 and 19 employees, small-scale businesses between 20 and 99 employees, medium-scale businesses between 99 and 299 employees, and large-scale businesses more than 300 employees.

Employment in the major economic sectors

Table 1-8
Employment situation in major types of industry

TYPE OF INDUSTRY	NUMBER OF BUSINESSES (ESTABLISHMENTS)	NUMBER OF EMPLOYEES
Forestry	3,377	31,494
Metal mining	36	823
Coal and lignite mining	26	2,482
Crude petroleum and natural gas	99	3,673
Non-ferrous metallic ore mining	3,605	40,331
Food	57,492	1,330,237
Beverages, tobacco and feed	9,005	156,277
Textile mill products	35,612	245,990
Apparel and other finished products made from fabrics and similar material	51,089	487,849
Lumber and wood products, except furniture	22,066	191,969
Furniture and fixtures	33,343	219,490
Pulp, paper and paper products	15,272	285,849
Publishing, printing and related industries	57,359	696,963
Chemicals and related products	9,095	493,940
Petroleum and coal products	1,378	37,848
Plastic products	28,079	469,9119
Leather tanning, leather products and fur skins	9,866	65,022
Ceramic, stone and clay products	28,117	411,107
Iron and steel	7,664	265,564
Non-ferrous metals and products	5,829	179,691
Fabricated metal products	81,509	854,798
General machinery	73,771	1,170,540
Electrical machinery, equipment and supplies	42,120	1,820,677
Transportation equipment	25,790	1,027,987
Precision instruments and machinery	11,805	250,228
Ordnance	38	4,351
Electricity	1,899	155,667
Gas	683	42,975
Heat supply	150	1,840
Water	740	10,879
Waste treatment services	13,807	193,487

Source: 2001 Establishment and Enterprise Census, Ministry of Public Management, Home Affairs, Posts and Telecommunications Note: As of 1 October 2001.

Chapter 2

Production, import, export and disposal of chemicals

2 1 Production, import and export of chemicals

Various kinds of chemicals are produced in Japan. In terms of annual production amount, industrial organic chemicals make up the largest share with 34.9 million tons, followed by high compressed gases, plastic materials, industrial inorganic chemicals and pigments, aromatic hydrocarbons and coal tar.

Table 2-1 **Production of chemicals**

Ammonia and am	monia derivatives	4,779,138
Among which:	Ammonia	1,603,626 (100% NH ₃ equivalent basis)
	Ammonium sulfate	1,585,366
	Nitric acid	617,415 (98% HNO ₃ equivalent basis)
	Urea	563,898
	Ammonium sulphate (by-product)	272,002
Phosphate fertiliz	ers and compound fertilizers	3,839,374
Among which:	Compound fertilizers (granular chemical –fetilizer)	1,703,294
	Superphosphate fertilizers	253,659
	Concentrated superphosphate and multi-phosphate fertilizers	93,400
	Fused (magnesium) phosphate fertilizer	85,727
Industrial sodium	chemicals	12,467,943
Among which:	Sodium hydroxide	4,290,783
•	Chlorine, gas	3,859,344
	Hydrochloric acid	2,342,240 (35% HCl equivalent basis)
	Sodium hypochlorite	1,067,253 (12% NaClO equivalent basis)
	Chlorine, liquid	776,535
Industrial inorgan	ic chemicals and pigments	17,975,166
Among which:	Sulphuric acid	6,727,079 (100% H ₂ SO ₄ equivalent basis)
	Chemical gypsum	5,874,345 (dihydrate equivalent basis)
	Aluminium sulphate	913,731 (14% solid equivalent basis)
	Carbon black	741,724
	Sodium silicate	679,242

Catalyst		9= 40°
	Face As also trail area dis	87,428
Among which:	For technical grade	72,422
	For environmental	15,006
Lime and precipita	ted calcium carbonate	9,650,053
	Quick lime	7,586,250
	Slaked lime	1,661,576
	Precipitated calcium carbonate	402,227
High compressed g	gas	22,267,010
Among which:	Oxygen	10,373,429
	Nitrogen	10,296,386
	Carbon dioxide	841,278
	Hydrogen	400,149
	Argon	198,668
Explosives (for ind	ustrial use)	60,824
Aromatic hydrocar	bons and coal tar	16,788,420
Among which:	Xylene (including non-petroleum base)	4,797,920
	Benzene, pure (including non-petroleum base)	4,260,546
	Para-xylene	2,814,214
	Coal tar	1,611,261
	Toluene, pure (including non-petroleum base)	1,422,658
Cyclic chemicals an	d synthetic dyes	7,696,805
Among which:	Styrene monomer	3,003,912
	Terephtalic acid (pure)	1,496,222
	Phenol	883,693
	Cyclohexane	598,411
	Bisphenol A	399,415
Industrial organic o		34,872,231
Among which:	Ethylene	7,360,714
	Propylene	5,341,889
	Pyralysis gasoline	5,252,729
	Ethylene dichloride	3,274,975
	Butane/butylene	2,827,434
Plastic (materials)	butane, busylene	18,693,830
Among which:	Polyethylene	3,294,272
Among Willell.	Vinyl chloride (monomer)	2,894,834
	Polypropylene	2,696,202
	Vinyl chloride resins, polyvinyl chloride	-
		2,194,718
Synthotic rubbons	Polystyrene (including synthetic latex)	1,810,456
		1,465,523
	ts and soap and synthetic detergent	1,962,897
Among which:	Synthetic detergent	878,217
	Fatty acids	350,282
	Fabric softener	219,515
	Bleaching agent	170,427
	Soap	133,682
Surface-active age		1,043,585
	Surface-active agents	1,029,374
	Higher alcohols	14,211

Cosmetics		404,260
Paints		1,811,513
Printing inks		572,877
Among which:	Printing inks	440,757
	Printing inks varnishes	133,120
Agricultural chemi	icals	332,126
Among which:	Insecticides	125,069
	Fungicides	70,866
	Combined insect- and fungicides	38,989
	Herbicides	75,467
	Rodenticides	421
	Plant growth regulators	3,473
	Adjuvants/coadjuvants	3,407
	Others	14,430

Source: Yearbook of Chemical Industries Statistics 2001, Ministry of Economy, Trade and Industry (METI). Agricultural chemicals Directory 2002, Japan Plant Protection Association.

Note 1: Weight unit is basically indicated in metric ton. The exceptions are as follows: the unit for high compressed gases is indicated in 10³m³; the data of agricultural chemicals (insecticides, fungicides, combined insect- and fungicides, etc.) is using value converted into metric ton from kL in case agricultural chemicals are liquid.

Note 2: The classifications used in Table 2-1 are not consistent with those of Table 2-2 since they are cited from different statistics.

Many kinds of chemicals are also imported as well as exported. In terms of annual import/export amount of industrial organic chemicals make up the largest share with approximately 4.51 million tons of import and approximately 8.71 million tons of export.

Table 2-2 Import and export of chemicals

	IMPORT			EXPORT	
Total volu	ume of imports	2,165,121	Total volu	ime of exports	3,092,93
Among which:		Among which:	Sulphuric acid and oleum (HS2807)	1,248,49	
	Artificial corundum, aluminium oxide and aluminium hydroxide (HS2818)	250,924	4	Sodium hydroxide (caustic soda), potassium hydroxide (caustic potash), and peroxides of sodium or potassium (HS2815)	935,23
Hydrogen, rare gases and other non-metals (HS2804)	220,621		Artificial corundum, aluminium oxide and aluminium hydroxide (HS2818)	300,20	
	Silicates, etc. (HS2839)	95,267		Sulphates, alums and peroxosulphates (persulphates) (HS2833)	164,06
	Chlorides, chloride oxides, chloride hydroxides, bromides, bromide oxides, iodides and iodide oxides (HS2827)	93,669		Carbonates, peroxcarbonates, etc. (HS2836)	61,55

ORGANIC CHEMICALS					
IMPORT			EXPORT		
Total volume of imports		4,511,488	Total volume of exports		8,710,290
Among which:	Acyclic alcohols and their derivatives (HS2905)	2,207,882	Among which:	Cyclic hydrocarbons (HS2902)	3,723,715

	alogenated derivatives of ordrocarbons (HS2903)	512,008	Acyclic hydrocarbons (HS2901)	837,799
Су	rclic hydrocarbons (HS2902)	326,012	Polycarboxylic acids and their anhydrides, halides, peroxides and peroxyacids, and their derivatives (HS2917)	745,515
an pe	olycarboxylic acids and their hydrides, halides, peroxides and eroxyacids, and their derivatives S2917)	201,287	Acyclic alcohols and their derivatives (HS2905)	386,313
	xygen-function amino- mpounds (HS2922)	149,598	Heterocyclic compounds with nitrogen hetero-atom (s) only (HS2933)	344,197

Fertilizers	Fertilizers						
	IMPORT			EXPORT			
Total volu	me of imports	2,218,573	Total volu	ime of exports	895,996		
Among which:	Potassic fertilizers (mineral or chemical fertilizers) (HS3104)	930,125	Among which:	Nitrogenous fertilizers (mineral or chemical fertilizers) (HS3102)	861,193		
	Mineral or chemical fertilizers containing two or three of the fertilising elements (nitrogen, phosphorous or potassium) and other fertilizers (HS3105)	721,181		Mineral or chemical fertilizers containing two or three of the fertilising elements (nitrogen, phosphorous or potassium) and other fertilizers (HS3105)	32,380		
	Nitrogenous fertilizers (mineral or chemical fertilizers) (HS3102)	369,919		Potassic fertilizers (mineral or chemical fertilizers) (HS3104)	476		
	Phosphatic fertilizers (mineral or chemical fertilizers) (HS3103)	139,713		Phosphatic fertilizers (mineral or chemical fertilizers) (HS3103)	113		

DYES, PIGMENTS AND OTHER COLOURING MATTER, PAINTS, VARNISHES, PUTTY, INKS, ETC.						
	IMPORT			EXPORT		
Total volu	me of imports	168,083	Total volu	me of exports	245,089	
Among which:	Other colouring matter (excluding those classified as a colouring matters of vegetable or animal origin, synthetic organic colouring matter and colour lakes) (HS3206)	74,224	Among which:	Other colouring matter (excluding those classified as a colouring matters of vegetable or animal origin, synthetic organic colouring matter and colour lakes) (HS3206)	74,523	
	Synthetic organic colouring matter (HS3204)	32,722		Paints and varnishes (nonaqueous, including enamels and lacquers) (HS3208)	50,521	
	Paints and varnishes (nonaqueous, including enamels and lacquers) (HS3208)	16,309		Printing ink, writing or drawing ink, etc. (HS3215)	35,980	
	Putty, resin cements, etc. (HS3214)	11,559		Synthetic organic colouring matter (HS3204)	29,310	
	Prepared pigments, prepared opacifiers and prepared colours, vitrifiable enamels and glazes, etc. (HS3207)	8,983		Putty, resin cements, etc. (HS3214)	22,125	

ESSENTIAL OILS AND RESINOIDS; AND PERFUMERY, COSMETIC OR TOILET PREPARATIONS					
	IMPORT			EXPORT	
Total volume of imports 102,690		Total volume of exports		36,605	
Among which:	Shaving preparations, personal deodorants, bath preparations, depilatories, etc. (HS3307)	28,841	Among which:	Preparations for use on the hair (HS3305)	12,618

Beauty or make-up preparations and preparations for the care of the skin, etc. (HS3304)	18,077	Beauty or make-up preparations and preparations for the care of the skin, etc. (HS3304)	10,279
Essential oils, resinoids, extracted oleoresins, etc. (HS3301)	16,542	Mixtures of odoriferous substance etc. (HS3302)	6,944
Preparations for use on the hair (HS3305)	14,844	Shaving preparations, personal deodorants, bath preparations, depilatories, etc. (HS3307)	5,406
Preparations for oral or dental hygiene and dental floss (HS3306)	13,903	Preparations for oral or dental hygiene and dental floss (HS3306)	1,016

SOAP, ORGANIC SURFACE-ACTIVE AGENTS, WASHING PREPARATIONS, LUBRICATING PREPARATIONS, WAXES, MODELLING PASTES, DENTAL PREPARATIONS, ETC.

IMPORT			EXPORT			
Total volu	me of imports	213,325	Total volu	me of exports	225,724	
Among which:	Organic surface-active agents (other than soap), surface-active preparations, washing preparations (including auxiliary washing preparations) and cleaning preparations (HS3402)	139,354	Among which:	Organic surface-active agents (other than soap), surface-active preparations, washing preparations (including auxiliary washing preparations) and cleaning preparations (HS3402)	98,188	
	Soap, organic surface-active products and preparations for use as soap, etc. (HS3401)	25,012		Lubricating preparations, etc. (HS3403)	84,242	
	Lubricating preparations, etc. (HS3403)	17,552		Polishes and creams, etc. (HS3405)	22,471	
	Artificial waxes and prepared waxes (HS3404)	16,334		Artificial waxes and prepared waxes (HS3404)	11,937	
	Polishes and creams, etc. (HS3405)	7,671		Soap, organic surface-active products and preparations for use as soap, etc. (HS3401)	8,058	

ALBUMINOIDAL SUBSTANCES, MODIFIED STARCHES, GLUES AND ENZYMES

	IMPORT		EXPORT			
Total volume of imports 43			Total volu	36,290		
Among which:	Dextrins and other modified starches, etc. (HS3505)	363,854	Among which:	Prepared glues and other prepared adhesives, etc. (HS3506)	20,456	
	Albumins, etc. (HS3502)	19,384		Dextrins and other modified starches, etc. (HS3505)	7,266	
	Casein, etc. (HS3501)	16,772		Enzymes (HS3507)	4,680	
	Prepared glues and other prepared adhesives, etc. (HS3506)	14,602		Gelatin, etc. (HS3503)	3,104	
	Peptones and their derivatives, etc. (HS3504)	12,795		Casein, etc. (HS3501)	399	

EXPLOSIVES, PYROTECHNIC PRODUCTS, MATCHES, PYROPHORIC ALLOYS AND CERTAIN COMBUSTIBLE PREPARATIONS

	IMPORT		EXPORT						
Total volume of imports		10,437	Total volu	1,135					
Among	Fireworks, etc. (HS3604)	8,715	Among	Matches (HS3605)	1,017				
which:	Ferrocerium, etc. (HS3606)	1,096	which:	Ferrocerium, etc. (HS3606)	92				
	Prepared explosives other than propellant powders (HS3602)	289		Fireworks, etc. (HS3604)	23				
	Propellant powders (HS3601)	181		Safety fuses, etc. (HS3603)	2				

MISCELLA	MISCELLANEOUS CHEMICAL PRODUCTS								
	IMPORT		EXPORT						
Total volu	me of imports	1,352,988	Total volu	me of exports	501,060				
Among which:	Prepare binders for foundry moulds or cores, etc. (HS3824)	605,326	Among which:	Prepared binders for foundry moulds or cores, etc. (HS3824)	192,670				
	Anti-knock preparations, oxidation inhibitors and gum inhibitors, etc. (HS3811)	143,732		Refractory cements, mortars, concretes, etc. (HS3816)	60,841				
	Graphite and preparations based on graphite or other carbon (HS3801)	103,568		Mixed alkylbenzenes and mixed alkylnaphthalenes (HS3817)	44,938				
	Industrial monocarboxylic fatty acids, acidic oils, industrial fatty alcohols, etc. (HS3823)	93,090		Finishing agents, dye carriers to accelerate the dyeing or fixing of dye-stuffs, etc. (HS3809)	41,728				
	Activated carbon, activated natural mineral products, etc. (HS3802)	83,916		Reaction initiators, reaction accelerators and catalytic preparations (HS3815)	25,494				
	Rosin and resin acids, and their derivatives, etc. (HS3806)	80,357		Industrial monocarboxilic fatty acids, acidic oils, industrial fatty alcohols, etc. (HS3823)	22,338				
	Tall oil (HS3803)	53,781		Graphite and preparations based on graphite or other carbon (HS3801)	21,206				
	Insecticides, rodenticides, fungicides, herbicides, etc. (HS3808)	35,442		Pickling preparations for metal surfaces, fluxes and other auxiliary preparations for soldering, etc. (HS3810)	18,333				
	Residual lyes from the manufacture of wood pulp (HS3804)	33,700		Activated carbon, activated natural mineral products, etc. (HS3802)	16,897				
	Refractory cements, mortars, concretes, etc. (HS3816)	32,441		Insecticides, rodenticides, fungicides, herbicides, etc. (HS3808)	14,172				

PLASTICS.	RURRER	ARTICIFS	THEREOF

PLASTICS,	PLASTICS, RUBBER AND ARTICLES THEREOF									
	IMPORT		EXPORT							
Total volu	ime of imports	2,214,717	Total volu	4,516,058						
Among which:	Polyacetals, epoxide resins, polycarbonates, alkyd resins, etc. (HS3907)	438,478	Among which:	Polymers of vinyl chloride or of other halogenated olefins (HS3904)	743,829					
	Articles of plastics for the conveyance or packing of goods, stoppers, lids, caps, etc. (HS3923)	405,868		Polymers of ethylene (HS3901)	636,362					
	Other articles of plastics (office supplies, apparel and clothing accessories, fittings for furniture, etc.) (HS3926)	231,257		Polyacetals, epoxide resins, polycarbonates, alkyd resins, etc. (HS3907)	531,810					
	Polymers of ethylene (HS3901)	203,301		Polymers of styrene (HS3903)	525,203					
	Polymers of propylene or of other olefins (HS3902)	198,826		Polymers of propylene or of other olefins (HS3902)	426,387					

Source: Customs Statistics 2001, Ministry of Finance (MOF).

Note: Weight unit is indicated in metric ton. The classifications used in Table 2-2 is not consistent with those of Table 2-1 since they are cited from different statistics.

2 Waste

In the Waste Management and Public Cleansing Law (see Chapter 4), wastes which are explosive, toxic, infectious or of a nature otherwise harmful to human health and the living environment are classified as Specially Controlled Industrial Waste or Specially Controlled Domestic Waste. The chemicals in Table 2-3 are Specially Controlled Industrial Wastes which exceed the limits specified in the same Table and are classified as Specified Hazardous Industrial Waste for which individual limits for disposal and management and a licensing system for the waste management companies have been established. Furthermore, the chemicals and other objects generated through disposal and management of Specified Hazardous Industrial Waste have to meet the landfill criteria specified in the same Table. Other waste is classified as industrial waste or domestic waste, to which different criteria are applied.

Table 2-3
Limits and criteria regarding Specified Hazardous Industrial Wastes

	DETERMINATION OF SPECIFIED	HAZARDOUS INDUSTRIAL WASTE	LANDFILL CRITERIA			
INCLUDED CHEMICALS	BURNT RESIDUE/DUST (mg/l)	POLLUTED SLUDGE/WASTE ACID/WASTE ALKALI (mg/l)	BURNT RESIDUE/DUST (mg/l)	POLLUTED SLUDGE (mg/l)		
Alkyl mercury	If detected	If detected	Not detected	Not detected		
Mercury	0.005≤	0.005≤	0.005	0.005		
Cadmium	0.3≤	0.3≤	0.3	0.3		
Lead	0.3≤	0.3≤	0.3	0.3		
Organic phosphorus		1≤		1		
Hexavalent chromium	1.5≤	1.5≤	1.5	1.5		
Arsenic	0.3≤	0.3≤	0.3	0.3		
Cyan		1≤		1		
РСВ		0.003≤		0.003		
Trichloroethylene		0.3≤		0.3		
Tetrachloroethylene		0.1≤		0.1		
Dichloromethane		0.2≤		0.2		
Carbon tetrachloride		0.02≤		0.02		
1,2-Dichloroethane		0.04≤		0.04		
1,1-Dicholoroethylene		0.2≤		0.2		
Cis-1,2-Dichloroethylene		0.4≤		0.4		
1,1,1-Trichloroethane		3≤		3		
1,1,2-Trichloroethane		0.06≤		0.06		
1,3-Dichloropropene		0.02≤		0.02		
Chiraum		0.06≤		0.06		
Simazine		0.03≤		0.03		
Thiobencarb		0.2≤		0.2		
Benzene		0.1≤		0.1		
Selenium	0.3≤	0.3≤	0.3	0.3		
Dioxins	3ng-TEQ/g≤	Polluted sludge: 3ng-TEQ/g≤, waste acid/waste	3ng-TEQ/g	3ng-TEQ/g		
		alkali: 100pg-TEQ/L≤				

Emissions of Specified Hazardous Industrial Waste fluctuate in the range of above and below 1 million tons a year, as shown in Table 2-4. They make up approximately 0.25% of all industrial waste emissions.

Table 2-4
Emissions of specified hazardous industrial waste and industrial waste

FY	SPECIFIED HAZARDOUS INDUSTRIAL WASTE (10,000 TONS)	INDUSTRIAL WASTE (10,000 TONS)							
1996	93	42,600							
1997	116	41,500							
1998	98	40,800							
1999	136	40,000							
Source: Survey conducted by	Source: Survey conducted by the Ministry of the Environment (MOE).								

Japan is a party to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, from the viewpoint of preventing damage to people's health and the environment resulting from the transboundary movement of hazardous wastes and their disposal. In order to effect this convention, Japan promulgated the Law for the Control of Export, Import and Others of Specified Wastes and Other Wastes in 1992 and it came into force in December 1993. Table 2-5 shows the volume of import and export of hazardous wastes based on this treaty and the related domestic law. The definition of these hazardous wastes is based on the Basel Convention and is different from the definition by the Waste Management and Public Cleansing Law.

Table 2-5
The amount of import and export of hazardous waste

FY	EXPORT (TONS)	IMPORT (TONS)
1999	2,926	1,939
2000	2,090	4,382
2001	1,515	4,326
2002	824	2,505

Source: The Implementation Status of the Law for the Control of Export, Import and Others of Specified Wastes and Other Wastes in 2001, Ministry of the Environment (MOE).

Note1: Based on the Foreign Exchange and Foreign Trade Control Law, the Minister of Economy, Trade and Industry has a good grasp of the number of import or export notifications issued regarding wastes regulated by the Law for the Control of Export, Import and Others of Specified Wastes and Other Wastes.

Note2: Export items were film with lenses attached, solder waste, lithium ion battery waste, etc., all with the aim of recovery and recycling of metals such as copper, lead, tin, etc.

Note3: Import items used were catalytic agents, copper sludge, nickel cadmium batteries, etc., all with the aim of recovery and recycling of metals such as copper, lead, tin, etc.

Issues regarding the production, import, export and use of chemicals

Death cases caused by chemical substances amount to 647 in 2001. The most cases were due to accidents of exposure to and intoxication with gases or vapours (excluding organic solvents and halogenated hydrocarbons and their vapours), and counted 201 in 2001.

Deaths caused by chemicals

NUMBER OF DEATHS (PERSONS)									(REFERENCE) TOTAL				
INTERNATIONAL BASIC CLASSIFICATION CODE	(E850- E869)	E850- E858	E860	E861	E862	E863	E864	E865	E866	E867	E868	E869	NUMBER OF DEATH (PERSONS)
1979	743	103	7	13	49	155	9	23	14	130	202	38	689,664
1980	776	97	3	8	60	171	2	36	14	117	242	26	722,801
1981	705	90	3	10	67	175	7	22	13	95	196	27	720,262
1982	764	101	8	9	48	245	5	19	17	94	198	20	711,883
1983	796	117	2	14	50	298	5	15	13	79	189	14	740,038
1984	820	81	2	8	52	285	8	18	16	86	246	18	740,247
1985	830	98	4	6	36	372	6	15	15	48	210	20	752,283
1986	787	89	3	6	37	357	3	11	18	52	190	21	750,620
1987	754	104	1	12	38	306	9	14	12	57	176	25	751,172
1988	622	84	6	12	53	192	5	13	15	46	177	19	793,014
1989	562	86	2	6	48	172	5	11	13	64	141	14	788,594
1990	561	106	3	7	55	163	3	6	11	35	154	18	820,305
1991	493	108	3	5	38	146	6	19	3	26	114	25	829,797
1992	526	137	2	9	41	130	4	10	9	60	114	10	856,643
1993	514	126	1	6	38	138	7	13	1	30	138	16	878,532
1994	497	126	1	5	39	144	4	8	7	20	129	14	875,933

(E850-E869) Accidental poisoning

E850-E858 Accidental poisoning by medicines

E860 Accidental poisoning by alcohol, not classified elsewhere

E861 Accidental poisoning by cleansing agents, disinfectants, paints or varnishes

E862 Accidental poisoning by petroleum products, other solvents or their vapours, not classified elsewhere E863 Accidental poisoning by agricultural or horticultural chemical and pharmaceutical products other than fertilizers

E864 Accidental poisoning by corrosives or erosive agents, not classified elsewhere

E865 Accidental poisoning from foodstuffs or poisonous plants

E866 Accidental poisoning by other or unspecified solid or liquid substances

E867 Accidental poisoning by gas distributed by pipelines E868 Accidental poisoning by other utility gases or other carbon monoxide

E869 Accidental poisoning by other gases or their vapours

		NUMBER OF DEATHS (PERSONS)							
BASIC CLASSIFICATION CODE FOR CAUSE OF DEATH	(X40-X49)	X40-X44	X45	X46	X47	X48	X49	NUMBER OF DEATHS (PERSONS)	
1995	568	208	2	38	156	139	25	922,139	
1996	699	217	1	63	198	176	44	896,211	
1997	608	231	1	26	165	153	32	913,402	
1998	559	162	2	43	176	140	36	936,484	
1999	707	261	3	42	224	139	38	982,031	
2000	605	245	6	34	177	122	21	961,653	
2001	647	261	2	34	201	114	35	970,331	

(X40-X49) Accidental poisoning by, or accidental exposure to hazardous substances X40-X44 Accidental poisoning by, or accidental exposure to medicines X45 Accidental poisoning by, or accidental exposure to alcohol

X46 Accidental poisoning by, or accidental exposure to organic solvent and halogenated hydrocarbons and their vapours

X47 Accidental poisoning by, or accidental exposure to other gases and vapours
X48 Accidental poisoning by, or accidental exposure to pesticides
X49 Accidental poisoning by, or accidental exposure to other and unspecified chemicals and toxics

Source: "Vital Statistics for Population", Ministry of Health, Labour and Welfare (MHLW). Note: The classification from 1979 through 1994 is different from that of 1995 through 2001.

Table 3-2 Major cases of accidents involving chemicals

DATE	PLACE (PREFECTURE)	FACILITIES AND/OR CHEMICALS INVOLVED	DETAILS OF ACCIDENT	INJURIES AND CASUALTIES
1998/3/6	Hyogo	Acrylic acid	Explosion	3 persons injured
1998/3/10	Kanagawa	Naphtalene oxidisation process	Explosion	1 person injured
1998/3/17	Oita	Manufacturing process of ignition devices	Fire	1 person injured
1998/3/24	Kanagawa	Polyalkylene glycol	Explosion and fire	1 person injured
1998/5/8	Okayama	Styrene monomer	Explosion	None
1998/5/25	Kanagawa	Sodium hydroxide	Outflow of water solution	2 persons injured by chemicals
1998/5/27	Ibaraki	Gas purification facility	Explosion during cleaning	1 person killed 4 persons injured
1998/8/4	Hiroshima	5-aminotetrazole production facility	Explosion	1 person injured
1998/8/6	Aichi	Raw materials for shampoo	Explosion	4 persons injured
1998/8/19	Osaka	Fracture of a hose used for chlorofluorocarbon	Leakage	2 persons injured
1998/11/14	Aichi	Phosphorous trichloride	Explosion	None
1998/11/29	Toyama	High purity red phosphorous production facility	Explosion	1 person killed 1 person seriously injured
1999/1/20	Kagawa	Carbon disulfide	Explosion	6 persons injured
1999/7/25	Yamaguchi	Tetrahydrofuran storage workplace	Explosion	None
1999/8/14	Mie	Raw materials for polyester	Fire	None
1999/9/22	Chiba	Phenol storage tank	Leakage	None
2000/5/10	Shizuoka	Fluorocarbon resin plant	Explosion	None
2000/6/10	Gunma	Hydroxylamine	Explosion	4 persons killed 38 persons injured 60% of plant destroyed
2000/8/1	Aichi	Explosives	Explosion	888 residential buildings, etc. damaged
2000/12/5	Osaka	Raw materials for pharmaceuticals	Explosion	3 persons injured

2000/12/6	Oita	Explosives production facility	Ignition	None	
2001/1/23	Tokushima	Dioxane	Explosion	8 persons injured	
2001/1/24	Ishikawa	Trichloroselane tank lorry	Overturn, leakage	None	
2001/4/23	Yamaguchi	Nitrogen trifluoride production facility	Explosion	None	
2001/4/24	Ibaraki	Liquid organic aluminium solution	Ignition	None	
2001/6/10	Yamaguchi	Polyurethane production facility	Phosgene leakage	None	
2001/10/4	Osaka	Hydrofluoric acid storage tank	Leakage	1 person killed	
2001/11/24	Shiga	Production facility of vinyl film for agricultural use	Fire	None	
2002/1/10	Okayama	High-pressure polyethylene production facility	Fire	None	
2002/3/12	Miyazaki	Synthetic fibre factory	Fire	None	
2002/5/22	Fukushima	Fireworks factory	Explosion	1 person injured	
2002/6/12	Miyazaki	Detonating primers factory	Explosion	None	
2002/7/1	Kochi	Drying facility for high-degree bleaching powder	Explosion	15 persons injured	
2002/7/4	Osaka	Dry ice cutting area	Poisoning	1 person critically injured	
2002/7/8	Yamaguchi	Blending facility for gas-generating agents for airbag	Explosion	2 persons injured	
2002/9/24	Kanagawa	Methyl ethyl ketone production plant	Fire	None	
2002/11/28	Aichi	Temporary storage of grade 12 explosives	Explosion	79 persons injured	
Source: Information corrected by the Ministry of Economy, Trade and Industry (METI).					

Source: Information corrected by the Ministry of Economy, Trade and Industry (METI). Note: Limited to cases reported to the Ministry of Economy, Trade and Industry (METI).

Laws/regulations and other legal framework for the management of chemical substances

1 Overview of laws for the management of chemical substances

Table 4-1

Laws responding to the management of chemical substances

LAWS	COMPETENT AUTHORITY	SUBJECT AREAS OF REGULATION	OBJECTIVE OF LAWS
Food Sanitation Law (Law No. 233 of 1947)	MHLW	Foods, additives, apparatus, container/package, toys and detergents	Preventing health hazards caused by food or drinks by taking necessary measures from the viewpoint of public health to ensure safety of food, aiming to protect the people of Japan.
Agricultural Chemicals Regulation Law (Law No. 82 of 1948)	MAFF MOE	Agricultural chemicals	Contributing to the stability of agricultural production, the protection of national health and the conservation of the people's living environment through establishing a system of registration for agricultural chemicals to regulate their sale and use etc. for ensuring proper quality of agricultural chemicals and their proper and safe use.
Fertilizer Control Law (Law No. 127 of 1950)	MAFF	Chemical fertilizers, etc.	Protection of national health and contributing to the safeguarding and enhancement of agricultural productivity by maintaining fertilizer quality etc., and securing its fair trade and safe use through the establishment of official standards and specification, registration, and examining etc.
Explosives Control Law (Law No. 149 of 1950)	METI	Explosives substances (explosives, propellant powders and pyrotechnics)	Ensuring public safety by preventing accidents due to explosives through the regulation of manufacture, sale, storage, transportation, consumption and handling of explosives.
Poisonous and Deleterious Substances Control Law (Law No. 303 of 1950)	MHLW	Specified controlled poisonous substances, other poisonous substances, deleterious substances	From the viewpoint of maintaining public health, implementing necessary control over poisonous and deleterious substances.
High Pressure Gas Safety Law (Law No. 204 of 1951)	METI	High-pressure gas (compressed gas, liquefied gas, etc.)	Ensuring public safety by preventing accidents due to high-pressure gas through the regulation of its manufacture, storage, sale, transportation, handling and

			consumption, and also the regulation of manufacture and handling of gas cylinders and containers. At the same time, promoting voluntary activity on safety of high-pressure gas by private enterprises and the High Pressure Gas Safety Institute of Japan.
Law Concerning Safety Assurance and Quality Improvement of Feed (Law No. 35 of 1953)	MAFF	Feed and feed additives	Securing public safety and the stable production of livestock products, etc. by regulating manufacturing, etc. of feeds and feed additives, establishing official specifications of feeds, and examining feeds according to the specifications so as to ensure safety and improve quality of feeds.
Water Supply Law (Law No. 177 of 1957)	MHLW	Water supplied by pipes	Contributing to the improvement of the living environment and public health by providing clean, abundant and inexpensive water through improving water systems and its administration as well as protecting and promoting water projects.
Pharmaceutical Affairs Law (Law No. 145 of 1960)	MHLW MAFF	Pharmaceuticals, quasi- drugs, cosmetics, medical devices	Implementing necessary regulations to ensure the quality, efficacy and safety of pharmaceuticals, quasi-drugs, cosmetics and medical devices, while taking necessary measures to promote research and development of pharmaceuticals and medical devices of particular necessity, aiming enhance of health and hygiene.
Household Goods Quality Labeling Law (Law No. 104 of 1962)	METI	Among textile products, goods made of synthetic resin, electrical equipment and miscellaneous industrial goods for general consumer use, commodities whose quality is very difficult to ascertain when general consumers purchase them.	Protecting the interests of general consumers by improving the appropriateness of labellings of household products.
Air Pollution Control Law (Law No. 97 of 1968)	MOE	Hazardous air pollutants, etc.	Protecting public health and the living environment, by regulating emissions of soot, smoke and particulates from the business activities of factories and business establishments, and in the event of demolishing buildings while promoting various measures concerning hazardous air pollutants. It also establishes maximum permissible limits for automobile exhaust gases. It also aims to protect victims of air pollution-related health damage through stipulating a liability of businesses in the case of the occurrence of health damage caused by air pollution.
Law of Maintenance of Sanitation in Buildings (Law No. 20 of 1970)	MHLW	Buildings	Promoting the improvement of public health by ensuring a healthy environment in buildings used and accessed by a large number of people through the establishment of necessary terms for environmental health in relation to the maintenance and administration of buildings.

Law Relating to Prevention of Marine Pollution and Marine Disaster (Law No. 136 of 1970)	MOE (matters regarding the control of chemicals under the law)	 Hazardous liquids, etc. Oil, hazardous liquids and wastes from vessels, marine facilities and aircraft 	Contributing to the preservation of the marine environment, human life, physical conditions and their assets through proper treatment of waste oil by regulating the disposal and burning of oil, hazardous liquid substances and waste from vessels, marine facilities and aircraft and through measures to protect against waste oil, hazardous liquid substances, waste and other substances, and to prevent the occurrence and spread of marine fires and dangerous maritime traffic in the event of fire. It also aims to ensure proper implementation of international agreements on the Prevention of Marine Pollution and Marine Disaster.
Waste Management and Public Cleansing Law (Law No. 137 of 1970)	MOE	Wastes	Preserving the living environment and improving public health by maintaining a clean living environment; controlling waste; disposing of and appropriately separating, storing, collecting, transporting, recycling, etc. waste.
Water Pollution Control Law (Law No. 138 of 1970)	MOE	Wastewater, etc.	Through regulating effluent discharged by factories or business establishments into public water areas or permeated into the ground, and through promoting the implementation of measures against domestic wastewater, the law aims to prevent the pollution of water and groundwater (including the deterioration of the condition of water other than the quality), thereby protecting public health and preserving the living environment. It also aims to protect victims by stipulating liabilities of businesses to the damage of human health caused by polluted water or wastewater discharged from factories or business establishments.
Agricultural Land Soil Pollution Prevention Law (Law No. 139 of 1970)	MAFF MOE	Specified hazardous substances	Protecting public health and the living environment by preventing the production of agricultural and livestock products that may damage people's health and impede the growth of agricultural products by taking necessary measures to prevent and eliminate the pollution of agricultural soil by specified hazardous substances, and rationalising the use of agricultural land in relation to pollution.
Industrial Safety and Health Law (Law No. 57 of 1972)	MHLW	Chemicals at the workplace	Securing, in conjunction with the Labour Standards Law, the safety and health of workers in workplaces, as well as facilitating the establishment of a comfortable working environment, by promoting comprehensive and systematic countermeasures concerning the prevention of industrial accidents, such as taking measures including the establishment of standards for prevention of accidents and health impairment, the clarification of responsibility and promotion of voluntary activities to prevent industrial accidents.

Law for the Control of Household Products Containing Harmful Substances (Law No. 112 of 1973)	MHLW	Hazardous substances contained in household products	Contributing to the protection of public health by implementing, from the point of view of public health, necessary regulations on household products containing harmful substances.
Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (Law No. 117 of 1973)	MHLW METI MOE	Chemicals (excluding pesticides, fertilizers, foodstuffs and drugs, etc. covered by other laws)	Preventing environmental pollution by chemical substances which have low bio-degradability and may harm human health or impair the life and/or growth of flora and fauna by establishing an evaluation system to determine if new chemical substances have low bio-degradability before the manufacture or import of these substances, and implementing necessary regulations in the manufacture, import, use, etc. according to the properties of these chemical substances.
Law Concerning the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures (Law No. 53 of 1988)	METI MOE	Substances depleting the ozone layer	Contributing to the protection of human health and the preservation of the living environment by protecting the ozone layer through international cooperation by implementing measures including production control of specified chemicals, curbing emissions and the rationalisation of specified substance use in order to ensure an appropriate and smooth implementation of the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer.
Law for the Control of Export, Import and Others of Specified Hazardous Wastes and Other Wastes (Law No. 108 of 1992)	METI MOE	Specified Hazardous Wastes and Other Wastes	Protecting public health and the living environment by taking necessary measures related to export, import, transport and disporsal of secified hazardous waste and other waste in order to ensure an appropriate and smooth implementation of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal etc.
Law on the Prohibition of Chemical Weapons and the Regulation of Specific Chemicals (Law No. 65 of 1995)	NPA MOFA METI	Toxic substances, substances that can be used as the main raw material for poisons, etc.	Prohibiting the production, retention, transfer and acquisition of chemical weapons, and regulating the production and use of specific chemicals in order to ensure the appropriate implementation of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction and the International Convention for the Suppression of Terrorist Bombings.
Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting	METI MOE	Chemicals (including chemicals depleting the ozone layer)	Promoting improvements of voluntary management activities of specific chemical substances by businesses and thus preventing possible obstacles to environmental protection by taking measures to grasp emissions of specific chemical substances and to have

Improvements in Their Management (Law No. 86 of 1999)			businesses provide information on the handling and properties of chemical substances, while obtaining the understanding of businesses and public, in consideration of international cooperation in the area of chemical management relating to environmental protection and following measures based on scientific knowledge and experiences and the situation of the manufacture, use and handling of chemicals.	
Law Concerning Special Measures Against Dioxins (Law No. 105 of 1999)	MOE	Dioxins	In consideration of the fact that dioxins may gravely impact human health and life, the law establishes standards necessary to form the basis of policies on dioxins in order to eliminate and prevent dioxin pollution of the environment and stipulates the necessary regulations and measures, etc. relating to contaminated soil.	
Law for Ensuring Implementation of Recovery and Destruction of Fluorocarbons Concerning Specified Products (Law No. 64 of 2001)	METI MOE	Fluorocarbons	Contributing to secure the healthy and cultured life of present and future people as well as the welfare of humanity, by reducing emissions of fluorocarbons into the atmosphere which deplete the ozone layer and thus cause adverse effect on global warming, through, establishing the guideline regarding the recovery and destruction of fluorocarbons contained in specified products and stipulating responsibilities of businesses and measures to ensure the implementation of the recovery and destruction of these substances while giving due consideration to the importance of active international cooperation to protect the ozone layer and prevent global warming which are global challenges facing humanity.	
Law concerning Special Measure against PCB waste (Law No. 65 of 2001)	MOE	PCB waste	In consideration of the fact that PCB has low bio-degradability, and may gravely impact human health and living Environment, and that PCB wastes has'nt been disposed yet, the law implements necessary regulations in storing, disposing etc., and establishes a system to dispose PCB wastes, then promotes PCB waste disposal.	
Soil Contamination Countermeasures Law (Law No. 53 of 2002)	MOE	Specified hazardous substances	Protecting public health through implementing the following measures against soil contamination: Establishing measures to grasp the situation of soil contamination by specified hazardous substances and establishing measures to prevent damage to human health caused by contaminated soil.	
Note: Laws listed according to their order of establishment.				

Laws on the control of substances beginning with their import, production to disposal

 $_{Table}$ $_{\pm 2}$ Overview of laws regarding the management of chemicals according to category of use

USAGE/HANDLING	Agricultural Chemicals Regulation Law Poisonous Deleterious Substances Control Law	Fertilizer Control Law	Law Concerning Safety Assurance and Quality Improvement of Feed	Pharmaceutical Affairs Law	Pharmaceutical Affairs Law	Pharmaceutical Affairs Law¹	Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Poisonous and Deleterious Substances Control Law Industrial Safety and Health Law
DISTRIBUTION/SALE	Agricultural Chemicals Regulation Law Poisonous Deleterious Substances Control Law	Fertilizer Control Law	Law Concerning Safety Assurance and Quality Improvement of Feed	Pharmaceutical Affairs Law	Pharmaceutical Affairs Law	Pharmaceutical Affairs Law¹	Poisonous and Deleterious Substances Control Law
TRANSPORTATION	Poisonous Deleterious Substances Control Law						Poisonous and Deleterious Substances Control Law
STORAGE	Poisonous Deleterious Substances Control Law		Law Concerning Safety Assurance and Quality Improvement of Feed	Pharmaceutical Affairs Law		Pharmaceutical Affairs Law¹	Poisonous and Deleterious Substances Control Law
PRODUCTION/DEVELOPMENT	Agricultural Chemicals Regulation Law Poisonous Deleterious Substances Control Law	Fertilizer Control Law	Law Concerning Safety Assurance and Quality Improvement of Feed	Pharmaceutical Affairs Law	Pharmaceutical Affairs Law	Pharmaceutical Affairs Law¹	Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Poisonous and Deleterious Substances Control Law Industrial Safety and Health Law
IMPORT	Agricultural Chemicals Regulation Law Poisonous Deleterious Substances Control Law	Fertilizer Control Law	Law Concerning Safety Assurance and Quality Improvement of Feed	Pharmaceutical Affairs Law	Pharmaceutical Affairs Law	Pharmaceutical Affairs Law¹	Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Poisonous and Deleterious Substances Control Law Industrial Safety and Health Law
CATEGORY	Agricultural chemicals	Fertilizers	Feed	Pharmaceuticals	Cosmetics	Household Insecticides	Industrial Chemicals (including petroleum products)

	Poisonous and Deleterious Substances Control Law ²	Waste Management and Public Cleansing Law
Law for the Control of Household Products Containing Harmful Substances Household Goods Quality Labelling Law	Poisonous and Deleterious Substances Control Law ²	Waste Management and Public Cleansing Law
	Poisonous and Deleterious Substances Control Law ²	Waste Management and Public Cleansing Law
	Poisonous and Deleterious Substances Control Law ²	Waste Management and Public Cleansing Law
Law for the Control of Household Products Containing Harmful Substances Household Goods Quality Labelling Law	Law Concerning the Protection of the Ozone Layer through the Control of Specified Substances and Other Measures Poisonous and Deleterious Substances Control Law ²	Waste Management and Public Cleansing Law
Law for the Control of Household Products Containing Harmful Substances Household Goods Quality Labelling Law	Law Concerning the Protection of the Ozone Layer through the Control of Specified Substances and Other Measures Poisonous and Deleterious Substances Control Law ²	Waste Management and Public Cleansing Law
Chemical substances for general consumer use (excluding chemicals covered by other categories)	Substances depleting the ozone layer	Chemical waste

Note: Only laws to regulate chemical substances from the viewpoint of protecting the human health and the living environment are shown in this table. The laws do not necessarily cover all the substances specified in each category.

1. Limited to those aimed at exterminating rats, flies, mosquitoes and fleas in order to protect humans and animals.

2. Among the chemicals depleting the ozone layer, carbon tetrachloride and methyl bromide are covered by the Poisonous and Deleterious Substances Control Law because of their acute toxicity.

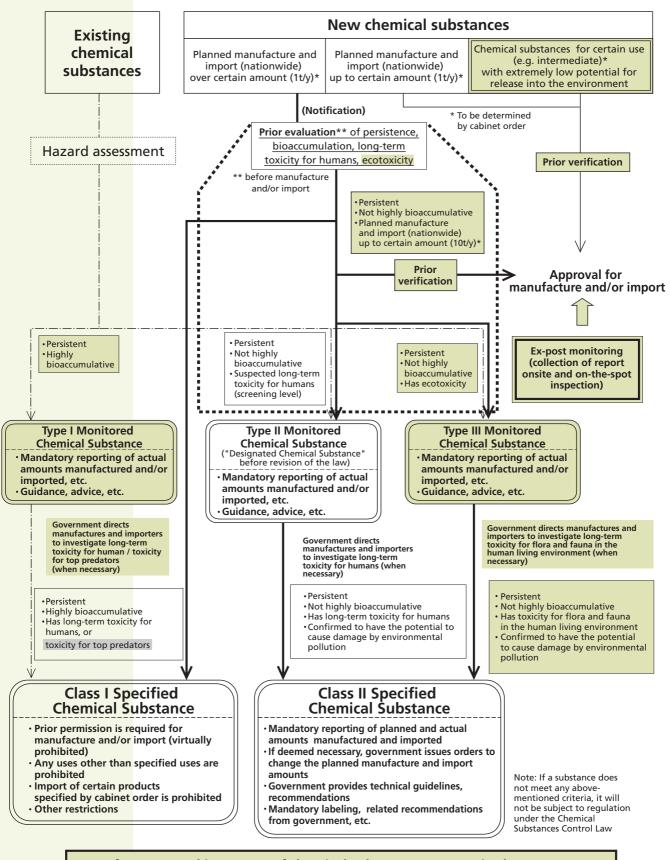
Overview of the main measures and procedures for chemical management

3.1 Notification, etc. Under the Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

The Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., requires prior evaluation of certain hazardous properties of new chemical substances intend for industrial use before being manufactured or imported and also regulates the manufacture, import and use of chemical substances in ways that reflect their hazardous properties. The law stipulates an authorization system for the production and import of chemical substances with low bio-degradability, high bio-accumulation and long-term toxicity (e.g. PCBs), and regulates their use. The law also imposes certain restrictions on chemicals with low bio-accumulation and low bio-degradability according to the level of their concentration in the environment.

Furthermore, this law was amended in May 2003 and the amendment will come into force on the day determined by the Cabinet Order, which shall be no later than one year after the promulgation of the law. Major contents of the amendment are as follows:

- Introducing evaluation and regulation system of chemical substances focused on their adverse effects on living organisms in the environment;
- Introducing restrictions on persistent and highly bio-accumulative existing chemical substances:
- Reforming prior evaluation system for new chemical substances taking into account their possibilities of exposure; and
- Introducing obligatory reporting system for hazard information voluntarily obtained by businesses.



Manufacturers and importers of chemical substances are required to report voluntarily-obtained hazard information of the substances

(Latest revisions to the law are marked with

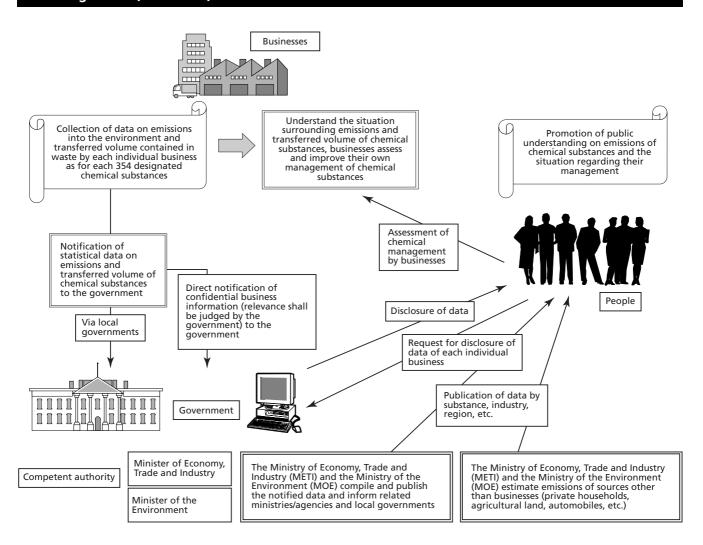
4

3.2 Notification, etc. Under the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

In order to accelerate voluntary chemical management activities by businesses, and thus to prevent adverse effects on the environment, the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management stipulates the PRTR (Pollutants Release and Transfer Register) system and the MSDS (Material Safety Data Sheet) system. PRTR system requires businesses to assess the amount of chemical substances released from their facilities into the environment or contained in wastes and transferred which may affect human health and the ecological system. The PRTR system also provides that the government shall collect and publish the data regarding the amount of released/transferred chemical substances based on reports submitted by businesses and total amount of non-reported chemical substances estimated by the government. The MSDS system requires businesses to provide the MSDS in transactions of chemical substances among businesses.

Diagram 4-2

Scheme of Notification, etc. Under the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management (Overview)



3.3 Response to the PIC Convention

Japan has regulated the export of hazardous chemical substances under the Foreign Exchange and Foreign Trade Control Law and the Export Trade Control Ordinance since 1992, and is taking part in international efforts based on the London Guidelines for the Exchange of Information on Chemicals in International Trade. Regarding the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC Convention), Japan will continue to implement its obligation under the convention with regard to banned or severely restricted chemicals in addition to chemicals listed in Annex III of the Convention. The Diet approved a conclusion of the Convention in March 2003.

Table 4-3

Banned or severely restricted chemicals

BANNED OR SEVERELY RESTRICTED CHEMICALS	LEVEL OF RESTRICTION	DETAILS OF BANNED OR SEVERELY RESTRICTED CHEMICALS		
Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances	SR	Low bio-degradability, high bio-accumulation, may damage human health in cases of continuous ingestion		
Industrial Safety and Health Law Prohibited Substances	SR	Substances causing severe health damage to workers		
Poisonous and Deleterious Substances Control Law Specified toxic Substances	SR	Acute toxicity		
Agricultural Chemicals Regulation Law Agricultural Chemicals prohibited to sell or use	SR	May affect both human beings and animals		
Note: SR: severely restricted, based on the criteria of the PIC Convention				

3.4 Response to the POPs Convention

Japan submitted the Instrument of Accession for the Stockholm Convention on Persistent Organic Pollutants (POPs Convention) and acceded the Convention in August 2002. In January 2003, the Inter-Ministerial General Directors' Meeting on the Stockholm Convention on Persistent Organic Pollutants was established. The Meeting has been making efforts to develop a national implementation plan based on the Convention, to facilitate communications and coordination among related ministries and agencies, and to promote the effective implementation of the Convention.

3.5 Response to the AFS Convention

Regarding the 2001 International Convention on the Control of Harmful Anti-Fouling Systems on Ships (AFS Convention), Japan has played a leading role in formulation of the Convention by refraining from the use of ship bottom paints in addition to the introduction of regulations on organotin compounds earlier than any other countries. Japan submitted the Instrument of Acceptance for the AFS Convention and accepted the Convention in July 2003.

4 Examples of voluntary activities for management of chemical substances other than laws and regulations

• Responsible care

The Japan Chemical Industry Association (JCIA) has formulated the Guiding Principles for the Improvement of Environmental, Health and Safety Conditions of 1990. In 1995, industries which produce and handle chemical substances established the Japan Responsible Care Council (JRCC) within the JCIA as a driving force for "Responsible Care" activities. The JCIA has voluntarily advanced the standardisation of data acquisition regarding PRTR since 1992, and since 1997, the JCIA has submitted those data on emissions to the government.

• Voluntary management plans by businesses regarding reduction of hazardous air pollutants

The revised Air Pollution Control Law of 1996 stipulates businesses have responsibilities to assess the emissions of hazardous air pollutants and take necessary measures for emission reduction. Responding to this revision, each industry had been formulating and implementing a voluntary management plan to reduce emissions of 13 hazardous air pollutants over a three-year period beginning in FY1997. As a result, a large-scale reduction in emissions and an improvement of the air quality had been realised. In addition, each industry has formulated and implemented the second voluntary management plan regarding 12 substances for the three years beginning in FY2001.

- (1) Associations, organisations and agencies leading the activities
- 74 industry associations (Japan Chemical Industry Association (JCIA), Petroleum Association of Japan (PAJ), Japan Iron and Steel Federation, Japan Automobile Manufacturers Association (JAMA), Japan Society of Industrial Machinery Manufacturers (JSIM), Japan Paper Association, Japan Gas Association (JGA), etc.)
- Body for the Establishment of a Regional Voluntary Management Plan for Benzene (Five bodies including the Mizushima Kombinat Information Exchange Organisation for Environmental Safety)
- (2) Other organisations and agencies involved in the activity
- The Ministry of Economy, Trade and Industry (METI) and the Ministry of the Environment (MOE) have issued the Guideline for Promotion of Voluntary Management of Hazardous Air Pollutants by Business Entities in 2001, and requested related industries to establish a voluntary management plan and submit a report on the results of the plan.
- The Working Group on Hazardous Air Pollutants Control Measures under the Risk Management Subcommittee (Chemicals and Bio-industry Committee, Industrial Structure Council), and the Expert Subcommittee on Emission Limitation of Air Quality and Environment Committee, Central Environmental Council have been conducting a review and assessment of the voluntary management plans and regional voluntary management plan for Benzene implemented by businesses.
- (3) Chemical substances covered by the activity
 - i) Acrylonitrile
 - ii) Acetaldehyde
 - iii) Vinyl chloride monomer

- iv) Chloroform
- v) 1,2-Dichloroethane
- vi) Dichloromethane
- vii) Tetrachloroethylene
- viii) Trichloroethylene
- ix) 1,3-Butadiene
- x) Benzene
- xi) Formaldehyde
- xii) Trinickel disulfide and nickel sulfate

Note: Dioxins were included in the first voluntary management plan. They are no longer covered by the second plan in accordance with the establishment of the Law Concerning Special Measures Against Dioxins.

(4) Results of activities

As a result of the first voluntary management plan from FY1997 to FY1999, the simply added amount of emissions of the 12 chemicals excluding dioxins was reduced by 41% compared to the base year (FY1995). In the same calculation, dioxin emissions were reduced by 36%.

As a result of the second voluntary management plan from FY2001 to FY2003, a reduction from 38,000 tons in the base year (FY1999) to 14,000 tons in FY2001 was achieved. Furthermore, the Regional Voluntary Management Plan for Benzene has cut down on 672 tons of benzene in FY2001 from approximately 1,045 tons of those in the base year (FY1999). It has decreased by 64% over the base year.

• Voluntary management activities by businesses regarding nonylphenol

Considering the possible effects on living organisms in the environment of nonylphenol being detected in the environment, the Japan Surfactant Industry Association, an association of detergent manufacturers, has decided and publicly announced a further strengthening of its voluntary efforts towards controlling the emission of nonylphenol-based detergents.

Responding to such voluntary efforts by the manufacturers, user-side business associations such as the Association for Industrial-use Detergents, Japan Autochemical Industry Association, Japan Floor Polish Manufacturers' Association, Japan Association of Cleaning Detergents Manufacturers, etc. have decided, between FY2001 to FY2002, to terminate the use of nonylphenol-based detergents (used in the open system) and switch to alternative products.

With this framework of reducing emissions in place, a lowering of the frequency of detection of nonylphenol in rivers has been achieved (see Table 4-4) and further improvements in the environmental situation are expected through such voluntary efforts among industries in the future.

Table 4-4 Frequency of detection of nonylphenol in rivers

	AUTUMN 1998	SUMMER 1999	AUTUMN 1999	AUTUMN 2000	AUTUMN 2001
Frequency of detection of nonylphenol (above 0.1 µg/L)	31/115 (27.0 %)	20/115 (17.4 %)	16/115 (13.9 %)	14/115 (12.2 %)	6/117 (5.1 %)
Source: Study by the Ministry of Land, Infrastructure and Transport (MLIT).					

• Voluntary management activities by businesses regarding lead and lead compounds

The Japan Chemical Industry Association and 13 related associations have cooperated to advance the following risk management framework since May 1996.

- Limitations of use of lead and lead compounds (eliminate the usage of lead and lead compounds in water pipes, gasoline, plastics used for stationery and toys, food wrappings and medical applications; usage limitations in printing films for interior and panels)
- Limitation in amount of leaching lead (complying with the Food Sanitation Law and voluntary standard established by industries)
- Prevention of lead exposure to the environment and production workers
- Provision of information and education (MSDS, warning labelling, etc.)
- International cooperation (information sharing)

• Voluntary management activities by businesses regarding cadmium and cadmium compounds

The Japan Chemical Industry Association and the Battery Association of Japan, the Japan Phosphatic and Compound Fertilizers Manufacturers' Association and the Japan Plastic Colourant Insudtry Association have cooperated to implement the following risk management framework since December 1996.

- Expansion of the collection and recycling system for Ni-Cd batteries
- Shift to phosphate rock containing less cadmium, which is a raw material for phosphatic fertilizers
- Substitutes for plastic colouring agents
- Appropriate management of emission from production and use
- Submission of MSDS
- International cooperation (information sharing)

• Voluntary management activities by businesses regarding brominated flame retardants

The Japan Chemical Industry Association and the Flame Retardant Chemicals Association of Japan (FRCJ) have been cooperating to implement the following risk management framework since July 1995.

- Continued implementation of restrictions in the production, import and sale of polybrominated biphenyls and polybrominated biphenyloxids other than DBDPO (decabromodiphenyl oxide) as well as OBDPO (octabromodiphenyl oxide)
- Manufacture of high grade brominated flame retardants (controlling the concentration level of low brominated substance to the lowest possible)
- Reduction of environment emissions quantity from production facilities
- Provision of information on safety of brominated flame retardants (issuance of MSDS, holding seminars, etc.)
- Accident prevention (guidance of handling and emergency response procedures through MSDS)
- Waste management (information on disposal method, etc. through MSDS)
- International cooperation (cooperation in international toxicity research programs, etc.)

Ministries and other government organisations related to the management of chemical substances

MINISTRY, ORGANISATION	MANDATE			
MINISTRY OF HEALTH, LABOUR AND WELFARE (MHLW)				
 Office of Chemical Safety, Pharmaceutical and Food Safety Bureau 	 Matters related to control of poisonous and deleterious substances. Matters related to regulations of production, import, use or other handling of chemical substances which may damage human health from an environmental health point of view. Matters related to regulations of household products containing hazardous substances. Matters related to the tolerable daily intake (TDI) of dioxins. 			
 Chemical Substance Investigation Division, Industrial Safety and Health Department 	 Matters related to an investigation of the toxicity of the chemical substances stipulated in the Industrial Safety and Health Law. Matters related to epidemiological investigations and other investigations to determine the interrelationship between the chemical substances to which workers are exposed or between the operations in which workers are engaged and workers' illnesses. Matters related to guidelines to prevent health impairments to worker due to chemical substances. 			
National Institute of Health Sciences (NIHS)	 Necessary review for the approval of production and import of pharmaceuticals, quasi-drugs, cosmetics and medical devices, as well as the re-examination and reevaluation of pharmaceuticals and medical devices. Examination and testing of pharmaceuticals, foodstuffs, etc. being required for approvals by the National Assays, and necessary research for conducting those tasks. Examination and testing (excluding biological testing of disinfectants, insecticides and rodenticides) of pharmaceuticals (excluding biological preparations and antibiotics, and their preparations), quasi-drugs, cosmetics, medical devices, foodstuffs, etc. for domestic consumption, and necessary research for conducting those tasks. Examination and testing of poisonous and deleterious substances as well as necessary research for conducting those tasks. Cultivation of medicinal plants, cultivation guidance as well as necessary research for conducting those tasks. Experimental production of pharmaceuticals, quasi-dugs and cosmetics, and the production of standard substances necessary for examination and testing. Experiments, study and research regarding other items required for public health. 			
MINISTRY OF AGRICULTURE, FORESTRY AND FISHEI	RIES (MAFF)			
• Environment Policy Division, Minister's Secretariat	- Matters related to environmental policy planning within the mandate of the Ministry.			
 Plant Products Safety Division, Food Safety and Consumer Affairs Bureau 	 Matters related to the process of production of administration regarding safety assuarance of agricultural and foresty products as food (excluding matters related to food sanitation and matters related to safety assuarance of agricultural chemicals under the jurisdiction of the Ministry of the Environment). Matters related to prevention and removal of pollutant in the soil of agricultural land Matters related to the promotion, improvement and coordination of fertilizers and agricultural chemicals production, distribution and consumption. 			
 Animal Health and Animal Products Safety Division, Food Safety and Consumer Affairs Bureau 	 Matters related to promotion, improvement and coordination of feeds, feed additives and veterinary drugs, quasi-drugs and medical devices production, contribution and coordination. 			

MINISTRY OF ECONOMY, TRADE AND INDUSTRY (METI) Chemical Management Policy - Administration related to chemical management under the jurisdiction of the Division, Manufacturing Industries Ministry of Economy, Trade and Industry. Bureau • Chemicals Safety Office, - Administration related to the enforcement of the Law Concerning the Manufacturing Industries Bureau Evaluation of Chemical Substances and Regulations of Their Manufacture, etc. • Chemical Weapon and Drug - Matters related to the enforcement of the Law on the Prohibition of Chemical Materials Control Policy Office, Weapons and the Regulation of Specific Chemicals. Manufacturing Industries Bureau - Matters related to regulations regarding the use of chemical substances as chemical weapons or their raw materials, and the use of chemical substances as narcotics and psychotropic drugs or other similar substances or their raw materials. Ozone Layer Protection Policy - Administration related to the enforcement of the Law Concerning the Office, Manufacturing Industries Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures. Bureau - Administration related to the risk assessment of chemical substances. Chemical Risk Assessment Policy Office, Manufacturing Industries Bureau • Chemicals Division, Manufacturing - Matters related to the promotion, improvement and coordination of Industries Bureau import/export, production, distribution and consumption of chemical products, etc. - Matters related to the promotion, improvement and coordination of distribution and consumption of industrial salts. - Matters related to the promotion, improvement and coordination of exports/imports and production of chemical fertilizers. • Industrial Safety Division, Nuclear - Matters related to the control of explosives. and Industrial Safety Agency - Matters related to ensuring the safety of high-pressure gases. - Matters related to prevent accidents at petroleum complex, etc. MINISTRY OF THE ENVIRONMENT (MOE) • Environmental Health and Safety - Matters related to the formulation of standards, compilation of data regarding Division, Environmental Health chemical amounts and publication of the results, from the viewpoint of Department preserving the environment in relation to grasping the amount of chemical substances, which are exhausted into the environment at business establishments in accordance with business activities or transferred outside the business establishments for waste disposal, as well as promoting their control improvement. - Matters related to examination, research and assessment in relation to chemical contamination whose mechanism of generation is not revealed and under the jurisdiction of the Environmental Health Department. Environmental Risk Assessment - Matters related to the tolerable daily intake of dioxins. Office, Environmental Health and - Matters related to an environmental risk assessment of administration regarding Safety Division, Environmental examination, research and assessment in relation to chemical contamination **Health Department** whose mechanism of generation is not revealed and under the jurisdiction of the Environmental Health Department. • Chemicals Evaluation Office, Policy - Matters related to the formulation of standards, etc. of regulations in relation to Planning Division, Environmental the evaluation, manufacture, import, use and other handling of chemical **Health Department** substances to protect the environment. Matters related to the implementation of such regulations. Global Environmental Issues - Matters related to the formulation of standards and regulations regarding the Division, Global Environment prevention of oceanic pollution from an environmental conservation point of Bureau - Matters related to overall administration of international cooperation under the jurisdiction of the Ministry of the Environment (MOE). • Office of Fluorocarbons - Matters related to the formulation of standards and regulations regarding the Management Policy, Global restraint of emissions of Greenhouse gas from an environmental conservation **Environment Issues Division, Global** point of view. **Environment Bureau** - Matters related to the formulation of standards and regulations regarding the protection of the ozone layer from an environmental conservation point of

 General Affairs Division, Environmental Management Bureau 	- Matters related to environmental standards regarding air pollution.
 Office of Dioxins Control, General Affairs Division, Environmental Management Bureau 	- Matters related to preventing environmental pollution caused by dioxins.
 Air Quality Management Division, Environmental Management Bureau 	 Matters related to regulations of the pollution prevention as well as pollution prevention (air pollution, noise, vibration and odour).
 Water Environment Management Division, Water Environment Department 	- Matters related to environmental standards regarding water contamination (including bottom sediment contamination).
 Soil Environment Management Division, Water Environment Department 	 Matters related to environmental standards regarding soil contamination. Matters related to regulations regarding the prevention of soil contamination.
 Agricultural Chemicals Control Office, Water Environment Department 	 Matters related to the establishment of standards for withholding registration and the usage restrictions on agricultural chemicals from an environmental conservation point of view.
 Office of Groundwater and Ground Environment, Water Environment Department 	 Matters related to regulations for preventing groundwater contamination. Matters related to the formulation of standards and regulations regarding groundwater contamination.
 Waste Management Division, Waste Management and Recycling Department 	 Matters related to controlling the disposal and correct treatment of domestic wastes. Matters related to the formulation of standards and regulations regarding the maintenance and management of the sewage system's back-end purification plants as well as the implementation of such regulations from an environmental conservation point of view. Matters related to overall administration regarding the development and diffusion of technology in relation to matters under the jurisdiction of the Waste Management and Recycling Department.
 Industrial Waste Management Division, Waste Management and Recycling Department 	- Matters related to controlling the disposal and correct treatment of industrial waste.
 Office of Waste Disposal Management, Waste Management Recycling Department 	 Matters related to regulations regarding the export, import, transport and disposal of specified hazardous wastes. Matters related to the correct treatment of waste which has properties such as explosiveness, toxicity or infectiousness and others causing damage to human health or the living environment.

INCORPORATED ADMINISTRATIVE AGENCIES (IAA)	OVERVIEW OF BUSINESSES
National Institute of Industrial Health (NIIH)	 Investigation of mechanism of health effects and new chemicals of hazard assessment techniques for establishment. Development of measurement and control methods for physical and chemical factors at work.
National Institute of Advanced Industrial Science and Technology (AIST)	 Research and development of industrial infrastructure technology, including measurement standards, geological surveys and development of base technologies necessary for the maintenance of the techno-infrastructure of Japan. Research on energy and environmental technology which requires initiatives of the government to develop. Interdisciplinary and broad-spectrum research activities to promote innovation and reinforce the international competitive strength of Japanese industry and encourage the creation of new industries.
 National Institute of Technology and Evaluation (NITE) 	 Systematic collection, evaluation, organisation and provision of technological knowledge, experiences and know-how required for the administration of economy, trade and industry, in the fields of biotechnology, chemical management, conformity assessment and human life and welfare, through

	technological evaluation, analysis and research activities regarding industrial goods, etc.
 Agricultural Chemicals Inspection Station (ACIS) 	 Registration testing of agricultural chemicals, GLP inspection, investigation research on agricultural chemicals inspection technology, collection and maintenace of information about the registration system of overseas agricultural chemicals, toxicity and remains nature, international technical cooperation about the agricultural chemicals inspection technology to developing countries, inspection to the agricultural chemicals manufacturer, seller and user by directions of the Minister of Agriculture, Forestry and Fisheries, etc.
 Fertilizer and Feed Inspection Station (FFIS) 	 Testing of fertilizers and soil conditioners, investigation, etc. on registration application for fertilizers. Testing of feed and feed additives, certification of specified additives (antibiotic preparations among feed additives).
 National Institute for Environmental Studies (NIES) 	 From the global to the local environment, wide ranging studies and research regarding the preservation of the environment including an assessment of the state of the environment, influences on the environment and a reduction of environmental burdens. Collecting, processing and providing environmental information.

Activities by industry associations, public organisations and research institutes

- Related organisations and their activities
- 1.1 Chemical industry associations
- 1.1.1 Vinyl Environmental Council (VEC) (http://www.vec.gr.jp/)

The Vinyl Environmental Council (VEC) was established in May 1998 and has 12 member companies and four sponsor companies.

While conducting study and research regarding the various problems related to the environment and safety in the vinyl chloride industry, in order to promote a correct understanding of vinyl chloride, VEC also undertakes study and research regarding the production, technology, distribution, consumption, etc. of vinyl chloride, and implements the following activities with the aim of contributing to the sound development of the vinyl chloride industry.

- Study and research regarding the various problems related to the environment and safety surrounding the vinyl chloride industry, as well as countermeasures and their promotion
- Public relations and education to promote a correct understanding of vinyl chloride
- Study and research regarding the production, technology, distribution, consumption, etc. of the vinyl chloride industry
- Communication/exchange and cooperation with related domestic and foreign organisations related to vinyl chloride

1.1.2 Kaseihin Kogyo Kyokai (Japan Dyestuff & Chemical Industry Association) (http://www.kaseikyo.org/)

The Japan Dyestuff & Chemical Industry Association (established in September 1946), and the Dyestuff & Chemical Discussion Group (established in May 1947) evolved into the Kaseihin Kogyo Kyokai (Japan Dyestuff & Chemical Industry Association) on 18 May 1948. JDCIA has 92 member companies and 10 supporting members and conducts studies and research on necessary issues for the development of the chemical products industry, with the aim being the sound growth and development of the chemical products industry.

- Businesses with respect to environmental and occupational safety
 Activities responding appropriately to various problems surrounding the safety of chemicals with a thorough understanding of the characteristics of each chemical substance
- Businesses with respect to the voluntary management of chemical substances
 Activities to raise awareness to promote voluntary management of chemical industries
 and to encourage them to implement rational and effective management of latent risks.

1.1.3 Japan Plasticizer Industry Association (JPIA) (http://www.kasozai.gr.jp/)

Founded on 1 June 1957, the Japan Plasticizer Industry Association (JPIA) has 10 members companies. JPIA undertakes the following activities with the aim of promoting the sound development of industry and cultivating mutual friendships among its members and supporting members.

- Study and research regarding the various problems related to the environment and safety of the plasticizer industry, as well as countermeasures and their promotion
- Public relations activities to disseminate a correct understanding of plasticizers among the people of Japan
- Study and research regarding the production, technology, distribution, consumption, etc. of the plasticizer industry
- Communication/exchange and cooperation, etc. with related domestic and foreign organisations regarding plasticizers

1.1.4 Japan Petrochemical Industry Association (JPCA) (http://www.jpca.or.jp/index.html)

The Petrochemical Industry Discussion Group (established in February 1957) developed into the Japan Petrochemical Industry Association (JPCA) in June 1958. The JPCA consists of 29 member companies.

The JPCA aims at contributing to the sound growth of the petrochemical industry and the development of the Japanese economy through major activities including study and research on the petrochemical industry, compilation of statistics, collection and distribution of information and materials, dissemination of knowledge and education and publication of opinions.

1.1.5 Japan Surfactant Industry Association (http://www.kaimenko.com/index.html)

Established in September 1950 as the Japan Fibre and Oil Industry Association and renamed in 1953 the Japan Oil Industry Association, in April 1961 the Japan Surfactant Industry Association assumed its current name. It consists of 45 surfactant products manufacturing companies.

In addition to reviewing the issues facing industry among the representatives from each company, the Japan Surfactant Industry Association collects and compiles information on the environment and safety regarding the surfactant product industry, disseminates the correct knowledge and provides various information on the surfactant.

40

6

1.1.6 Japan Chemical Industry Association (JCIA) (http://www.nikkakyo.org/)

The Japan Chemical Industry Association (JCIA) was established as the Chemical Industry Control Association in October 1942 and became the Chemical Industry Federation in March 1946. In June 1991, the current Japan Chemical Industry Association (JCIA) was incorporated.

The JCIA aims at contributing to Japan's economic prosperity and the advancement of the life of the Japanese people through ensuring the sound development of the chemical industry. To this end, JCIA conducts such activities as study and research on production, distribution and consumption of chemical products as well as in areas such as technology, labour, environment and safety and policy planning and promotion. As of November 2002, the JCIA is composed of 195 member companies and 80 associate members.

JCIA's main activities are as follows:

- Study and research on production, distribution and consumption regarding the chemical industry
- Study, research and surveys on various problems regarding the chemical industry including technology, labour, environment and safety, as well as the formulation and promotion of countermeasures
- Recognition of achievements in the development of stand out technology and safety results in relation to the chemical industry
- Collection and provision of information regarding the chemical industry
- Public relations activities to promote an understanding of the chemical industry
- Holding of training meetings, seminars, etc. regarding the chemical industry
- Exchange/communication and cooperation, etc. with related domestic and foreign organisations regarding the chemical industry

Of particular, in order to promote voluntary management of chemical substances among its member companies, the Environment and Safety Committee and the Committee for ICCA were established within the JCIA. They conduct the JCIA PRTR study, response to disaster protection including transport, promotion of occupational health and safety, and the promotion of the HPV Initiative and Long-range Research Initiative (LRI).

6

1.1.7 Japan Chemical Exporters' Association (JCEA) and the Japan Chemical Importers' Association (JCIA) (https://www.cheminfo.jp/jcta/)

The Japan Chemical Exporters Association (JCEA) was established in 1953 and has 120 member companies. The Japan Chemical Importers Association (JCIA), on the other hand, was established in 1976 and consists of 206 member companies.

While providing precise information and consulting services regarding regulations on security export control and chemical management of various countries (with regard to safety and the environment), the associations collect requests from their members and compile policy recommendations and requests to the government.

1.1.8 Federation of Pharmaceutical Manufacturers' Associations of Japan (FPMAJ) (http://www.fpmaj.gr.jp/)

Founded on 16 October 1948, the Federation of Pharmaceutical Manufacturers' Associations of Japan (FPMAJ) undertakes the following activities with the aim of contributing to the sound development of the pharmaceutical industry and the advancement of the life of Japanese nationals.

- Collection and provision/publication of relevant materials
- Study and research on common issues of the industry and the promotion of innovation with company management and advancement of pharmaceutical technology
- Compilation of the industry opinions, and if necessary, offering opinions to the government or related organisations
- Improvement of quality of pharmaceuticals and their raw materials, improvement of standards and enhancement of efficiency in production or distribution
- Study and investigation, etc. into the situation surrounding the production of pharmaceuticals in various countries

1.1.9 Japan Soap and Detergent Association (JSDA) (http://www.jsda.org/top.html)

In 1947, the Fat and Oil Industry Federation was established, and reorganised in 1950 into two organisations: the Japan Fat and Oil Processors Association (JFOPA) and Japan Soap Association (JSA). In 1973, the current Japan Soap and Detergent Association (JSDA) was created through a merger with the JFOPA and the Japan Household Synthetic Detergent Association (JHSDA). The JSDA has 25 member companies and 35 supporting member companies.

The JSDA compiles opinions of the industry regarding the sound development of the soap and detergent as well as related industries, and enhances cooperation among those industries in order to contribute to the stable development of the life of Japanese people.

The JSDA has as members the major producers of fat and oil products such as fatty acids, glycerine and hydrogenate oil, as well as toiletries including makers of various soaps, detergents, shampoos and conditioners.

1.1.10 Japan Soda Industry Association (JSIA) (http://www.jsia.gr.jp/)

The Japan Soda Industry Association (JSIA) was established on 28 May 1948. The JSIA has 29 member companies as of July 2002. Its main activities are as follows:

- Study and research regarding production, distribution and consumption, and raw materials
- Study and research into rationalisation of production technology and various standards and joint testing and research
- Study and research regarding security, safety health and environmental conservation

1.1.11 Japan Paint Manufacturers Association (JPMA) (http://www.toryo.or.jp/index.html)

The Japan Paint Manufacturers Association (JPMA) was established as a voluntary organisation consisting of paint manufacturers on 5 April 1948, and became incorporated in 1986. The JPMA is one of important members of the International Paint and Printing Ink Council (IPPIC) and the Asian Paint Industry Council (APIC). The JPMA has 217 member companies. Full members consist of leading paint manufactures in Japan.

The JPMA's main activities are as follows:

- Study and research on industry-wide issues such as improving business management, environmental management and safety measures
- Standardisation of the domestic/international standard of product quality and standards
- Exchange of information on international issues and countermeasures
- Development of a sample standard colour reference book, "Standard Paint Colors"

1.1.12 Japan Plastics Industry Federation (JPIF) (http://www.jpif.gr.jp/index.html)

The Plastics Association was established on 1 July 1950. With additional members it became a more comprehensive organisation, the current Japan Plastics Industry Federation (JPIF) in June 1962. As the major organisation representing the Japanese plastics industry, the JPIF engages in activities regarding a broad range of problems such as raw material resins, moulding and the fabrication and management of used products. Specifically, it carries out the following major activities.

- Activities relating to the Containers and Packaging Recycling Law
- Activities to ensure the environment and safety
- Activities relating to the Product Liability Law

1.1.13 Japan Aromatic Industry Association (JAIA) (http://www.jaia-aroma.com/)

Established as the Japan Tar Association on 1 June 1948, the main activities of the Japan Aromatic Industry Association (JAIA) are as follows:

- Compilation of statistics regarding the tar industry and compilation and distribution of various information
- Study and research regarding the advancement and exchange of technology and the advancement of operational efficiency
- Projects regarding the qualitative advancement of tar products
- Study and research regarding management rationalisation and conditions in the tar industry

1.1.14 Japan Inorganic Chemical Industry Association (JICIA) (http://www.mukiyakukyo.gr.jp/)

Established on 27 May 1948, the Japan Inorganic Chemical Industry Association (JICIA) undertakes the following activities.

- Study and research regarding inorganic chemicals
- Study and research regarding production, consumption and raw materials for inorganic chemicals
- Study and research regarding import and export trends of inorganic chemicals as well as the situation overseas
- Public relations activities to raise social awareness of inorganic chemicals
- Study and research regarding standards of inorganic chemicals
- Study and research regarding the environment and safety
- Offering opinions to related government agencies and various organisations
- Other activities necessary to achieve the JICIA's objectives

1.1.15 Japan Crop Protection Association (JCPA) (http://www.jcpa.or.jp/index.html)

The Agricultural Chemicals Association was established in 1946 and fulfilled the role of testing and controlling agricultural chemicals after the war. It became the current Japan Crop Protection Association (JCPA) in 1953. As of August 2003, the JCPA has 52 full members and 25 associate members. The JCPA performs the social mission of crop protection, with goals of advancing operational efficiency and realising contributions to society. The JCPA's main activities are as follows:

- Measures for the safety of crop protection
- Promotion of the appropriate use of crop protection
- Public relations activities regarding crop protection
- Promotion of international activities regarding crop protection and measures in relation to technology, safety, public relations and distribution in cooperation with international organisations

1.2 Public organisations and research institutes

1.2.1 Japan Chemical Industry Ecology-Toxicology and Information Center (JETOC)

Through the promotion of research and investigation on the safety of chemical substances, the Japan Chemical Industry Ecology-Toxicology and Information Center (JETOC) aims to contribute to the following tasks.

- Assurance of industrial hygiene
- Development of chemicals related to industry
- Enhancement of national health and hygiene

1.2.2 Japan Industrial Safety and Health Association (JISHA)

Established in 1964, the Japan Industrial Safety and Health Association (JISHA) has the goals of eradicating industrial accidents through the promotion of voluntary activities to prevent industrial accidents and to enhance safety and health. The JISHA was established based upon the Industrial Injury Prevention Organizations Law, and produces model safety data sheets for chemical substances, provides support for appropriate chemical management and conducts studies about the toxicity and influence on human health of chemical substances used in the various work fields requested by government.

1.2.3 Japan Bioassay Research Center (JBRC)

The Japan Bioassay Research Center was established in 1982, and has been conducting bioassay studies; general toxicity, carcinogenicity, mutagenicity and reproductive/developmental toxicity.

1.2.4 Hatano Research Institute, Food and Drug Safety Center (FDSC)

Established in December 1970, the Hatano Research Institute, Food and Drug Safety Centre (FDSC) is entrusted with experiments regarding safety tests for foods, pharmaceuticals, various chemical substances, medical materials and devices. Furthermore, the FDSC also participates in public studies and research activities from the positions of research and technology.

1.2.5 Food, Agricultural Chemicals and Drug Safety Evaluation Centre (An-Pyo Centre)

Established in 1978, the Food, Agricultural Chemicals and Drug Safety Evaluation Centre (An-Pyo Centre) conducts tests, study and research regarding the safety of pharmaceuticals, agricultural chemicals, food, chemical substances in general, medical devices, etc.

1.2.6 Institute of Environmental Toxicology

Established in 1970, the Institute of Environmental Toxicology undertakes study and research regarding the safety of agricultural chemicals, various other commissioned experiments, the training of experimental technology, exchange of information, and dissemination of experimental technology and knowledge, etc.

1.2.7 Chemicals Evaluation and Research Institute, Japan (CERI)

Founded in 1949, the Chemicals Evaluation and Research Institute, Japan (CERI) aims at upgrading the quality of chemical substances and assuring their safety while at the same time emphasising environmental preservation and the protection of health through conducting experiments, tests, evaluations, research and development regarding chemical substances.

1.2.8 Japan Chemical Innovation Institute (JCII)

The Japan Chemical Innovation Institute (JCII) implements activities in the following three areas: strategic advancement of chemical technology, research and development and high polymer test and its evaluation.

1.2.9 Center for Environmental Information Science (CEIS)

Established in 1971, the Center for Environmental Information Science (CEIS) promotes scientific research in natural and social fields as well as dissemination and educational activities. The Center also conducts study and research regarding PRTR, risk communication and environmental study, etc.

Overview of available specialised knowledge other than governments

Research institutes, universities, industrial/public organisations, labour unions, functional organisations, consumers and civil groups are also involved in the collection of chemical data, test5ng/eva34at56n, training/education, monitoring and information provision to the general public.

Chapter 7

Coordination and cooperation structure among government ministries and agencies, etc.

Coordination and cooperation structure among government ministries and agencies, etc.

It is recognized that recent issues regarding chemical substances require cooperations of government ministries and agencies by transcending their frameworks, for which the following inter-ministerial meeting, etc., have been established in cooperation by the various ministries and agencies in order to promote various measures regarding management of chemical substances effectively and efficiently.

Table Coordination and cooperation structure among ministries and agencies

NAME	RESPONSIBILITY	SECRETARIAT	MEMBERS	LEGAL AUTHORITY/OBJECTIVES
Inter-Ministerial Directors' Committee for Cooperation on Endocrine Disrupting Chemicals	Regarding the issues of endocrine disrupting chemicals, exchanging information on effects on human health and activities by international organizations, as well as communicating and coordinating among relevant ministries and agencies if necessary.	Rotating among MHLW METI MOE	Heads of the relevant divisions/offices at MEXT MHLW MAFF METI MLIT MOE	Exchange of information, and communication and coordination
Inter-Ministerial Meeting on Indoor Air Pollutants	Exchanging information on matters regarding indoor air pollutants among the relevant ministries and agencies, as well as communicating/ coordinating among relevant officers if necessary.	MHLW	MEXT MHLW MAFF METI MLIT MOE	Exchange of information, and communication and coordination
Council of Ministries and Agencies on Dioxin policy	Ensuring close communication among the relevant administrative institutions on policies regarding dioxin pollution and its effect on human health, and promoting it effectively and comprehensively.	MOE	Cabinet Office NPA MOJ MOFA MEXT MHLW MAFF METI MLIT MOE	Communication/ coordination

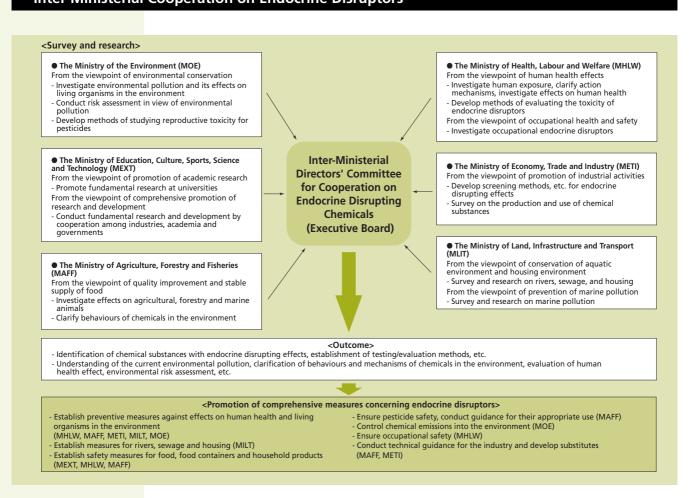
Inter-Ministerial Meeting on HPV Chemicals	Exchanging information on the hazard assessment of chemical substances, as well as promoting communication/coordination among relevant ministries and agencies to properly implement the HPV Project of the Organisation for Economic Co-operation and Development (OECD).	Rotating among MHLW METI MOE	MHLW METI MOE JCIA	Exchange information, communication/ coordination
Inter-Ministerial Meeting on GLP	Exchanging information on GLP matters as well as communication/coordination among relevant ministries and agencies for effective and efficient implementation of GLP schemes.	MHLW	MHLW MAFF METI Staff from related organisations and being in charge of matters regarding GLP	Exchange information, communication/ coordination
Inter-Ministerial Meeting on GHS	Exchanging information on domestic/international activities related to GHS and promoting communication/ coordination among relevant ministries and agencies, if necessary.	MHLW	MOFA MPHPT MHLW MAFF METI MLIT MOE Staff from related organisations	Exchange information, communication/ coordination
Inter-Ministerial Meeting on IFCS	Exchanging information regarding matters related to IFCS among relevant ministries and agencies, as well as promoting communication/coordination among them if necessary.	MHLW	MOFA MHLW MAFF METI MOE Staff from related organisations and being in charge of matters related the safety of chemical substances	Exchange information, communication/ coordination
Inter-Ministerial General Directors' Meeting on the Stockholm Convention on Persistent Organic Pollutants	Developing Japan's National Implementation Plan based on the POPs Convention and promoting communication/ coordination among relevant ministries and agencies to review the progress and to promote an effective implementation of the Convention.	MOE	MOFA Cabinet Office MHLW MAFF METI MOE	Exchange information, communication/ coordination
Inter-Ministerial Conference on the Prevention of Illegal Traffic of Wastes	Taking preventive measures against illegal export of waste, and appropriate countermeasure in case illegal exports take place.	МОЕ	NPA MOFA MOF METI MLIT MOE	Exchange information, communication/ coordination

7 2 Details on the coordination and cooperation structure among ministries and agencies, etc.

2.1 Inter-Ministerial Directors' Committee for Cooperation on Endocrine Disrupting Chemicals

The Committee convenes at their discretion to exchange information on matters related to endocrine disrupting chemicals among relevant ministries and agencies, and seeks strategic and effective cooperation among them.

Diagram Inter-Ministerial Cooperation on Endocrine Disruptors



2.2 Inter-Ministerial Meeting on Indoor Air Pollutants

The Meeting coordinates and takes measures on the so-called "Sick House Syndrome" or health problems caused by chemicals including formaldehyde emitted from building materials used in construction.

Diagram

Overview of comprehensive measures against "Sick House Syndrome"

- Formaldehyde, toluene, xylene, paradichlorobenzene, ...
- Adhesives, organic solvents, plasticizers, antitermite agents, fungicides, insecticides, etc.
- TVOC (Total Volatile Organic Compounds)

Health standards and standards for

 Establishment of health standards for the concentration of indoor air pollutants

measurement methods

- Establishment of measurement standards for the concentration of indoor air
- Establishment of measurement standards for the emission amount
- Development of simple and easy measurement methods

Preventive measures

- JIS and JAS standards for building materials
- Display of usage and emission levels of chemical substances
- Support for technology development of safe building material
- Building standards (building materials, ventilation equipment, etc.) based on the Building Standard Law
- Indication of function of houses according to the Housing Quality Assurance Law
- Planning and construction guidelines, etc. (regarding the selection of building materials and facilities)
- Preferential financing for healthy homes
- Standards, etc. for sanitation in buildings according to the Law of Management of Sanitation in Buildings
- Standards, etc. according to the Law for the Control of Household Products Containing Harmful Substances
- Healthy home guidelines

Improvement of the counselling system

- Health centres, regional institutes for health research
- Local government housing centres, PL centres, Centre for Housing Renovation and Dispute Settlement Support, etc.
- Counselling manuals, workshops
- Improvement of measuring equipments and measuring services
- Build networks of various counselling systems

Analysis of causes

- Surveys on the actual situation of indoor chemical substances (A)
- Surveys on the actual situation of health damage (B)
- Research on the relation between A and B
- Surveys on the various emission sources and emitted amounts
- Surveys on their relation with the way of living such as installation of ventilation equipments
- Surveys on allergen such as mites and mould

Refurbishment of polluted

- Support for the development, assessment and dissemination of various reduction measures including air cleaners, absorbing agents, ventilation equipments, bake-out, etc.
- Dispute settlement, etc.

Measures in the areas of medical treatment and research

- Build networks of specialised medical institutions
- Collection of data on various cases
- Research on diagnostic standards and treatment methods
- Improvement of the diagnosis and treatment system

2.3 Council of Ministries and Agencies on Dioxin policy

The Council exchanges information on the dioxin issue among relevant ministries and agencies and makes efforts to cooperate strategically and effectively.

2.4 Inter-Ministerial Meeting on High Production Volume (HPV) Chemicals

The OECD is operating the HPV project (High Production Volume Chemicals: HPV chemicals are chemical substances produced in at least one member country in the amount of more than 1,000 tons per year) through which member countries are cooperating to acquire data on the safety of chemical substances which are widely used but where safety data is not yet sufficient, undertake hazard assessment on them and share the results. At the Meeting, based on information from other countries, officials exchange information and cooperate among relevant ministries and agencies with the aim of effectively promoting the domestic assessment of the chemical substances which Japan is charged with.

2.5 Inter-Ministerial Meeting on Good Laboratory Practice (GLP)

Currently, there are a number of GLPs schemes in Japan, such as GLP for pharmaceutical products (Ministry of Health, Labour and Welfare (MHLW), Organisation for Pharmaceutical Safety and Research (OPSR/Kiko)), GLP for chemicals (Ministry of Health, Labour and Welfare (MHLW), Ministry of Economy, Trade and Industry (METI)), GLP in line with the Industrial Safety and Health Law (MHLW), GLP for pesticide products (Ministry of Agriculture, Forestry and Fisheries (MAFF)), GLP for veterinary drugs (MAFF), and GLP for feed additives (Ministry of Agriculture, Forestry and Fisheries (MAFF)). Having created implementation standards based on the relevant legislation, various authorities conduct inspections and examinations over those GLPs.

Although arrangements exist among these authorities concerning the acceptance of the results of the inspections and examinations between GLP for pharmaceutical products and GLP for chemicals, or between GLP for chemicals and GLP in line with the Industrial Safety and Health Law, there is no such arrangement for other GLPs. Therefore some testing facilities receive repeated inspections and examinations by multiple authorities, and this has placed a heavy burden on the testing facilities.

In order to apply and implement these GLP schemes effectively and efficiently, and to deal with OECD matters smoothly, relevant ministries and agencies have established a forum for exchange of information, and are deliberating on the way to resolve issues related to GLP.

2.6 Inter-Ministerial Meeting on GHS

The Meeting provides for a for information exchange among relevant ministries and agencies to discuss issues related to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).

7 2.7 Inter-Ministerial Meeting on Intergovernmental Forum for Chemical Safety (IFCS)

For the period between Forum III and Forum IV, Japan has been the vice-chair representing the Asia-Pacific region. Japan regards the promotion of cooperation among the countries in the Asia-Pacific region as important, and seeks cooperation among its domestic ministries through this Meeting.

2.8 Inter-Ministerial General Directors' Meeting on the Stockholm Convention on Persistent Organic Pollutants

In response to Japan acceding the POPs Convention in August 2002, the Meeting is making efforts to promote the effective implementation of the Convention and to facilitate communication/coordination for development of Japan's National Implementation Plan based on the Convention and review of its progress among relevant ministries and agencies.

2.9 Inter-Ministerial Conference on the Prevention of Illegal Traffic of Wastes

In the wake of the case of illegal export of waste to the Philippines in 1999, the Conference was established in January 2000 to prevent the reoccurrence of illegal exports of wastes and to promote correct treatment and disposal. The Conference undertakes daily information exchange to react promptly and precisely to actual or suspected cases of illegal export of wastes, while formulating measures to prevent the reoccurrence of illegal export.

System to obtain opinions and information experts, private organisations, etc.

• Advisory councils

Within the scope of their mandate, the national administrative organisations may establish, under stipulation of laws and ministerial ordinances, advisory councils to take charge of investigation and administrative review of important matters, and of administration which ought to be handled through consultation among intellectuals.

• Public comment procedures

This is a part of the policy formulation process. Administrative organisations shall publicise the draft policies and provide opportunities for the general public/businesses to express their opinions or information about the drafts. The government shall give due consideration to these opinions, etc. and make a final decision.

The Cabinet decided that such an opportunity has to be provided (23 March 1999), particularly if national administrative organisation establishes new regulations or changes the content of existing regulations or abolishes regulations. This has been implemented since April 1999.

The government aims to ensure fairness and enhance transparency in the administrative decision making process through this procedure, while having a good grasp of various opinions/information/special knowledge of the general public/businesses.

Access to data and their utilisation

1 Sources of data

The relevant data is available through databases managed by governmental institutions, public organisations, etc. as well as the homepages of relevant ministries. A large part of these data are accessible via the Internet. However, some are only available in Japanese.

• Chemical substances toxicity database

(http://wwwdb.mhlw.go.jp/ginc/html/db1-j.html)

Information on toxicity tests on existing high production volume chemicals (HPV) of OECD HPV programme and other toxicity tests on existing chemicals conducted by Japan is available. This database covers information ranging from the test procedure to the test results and is available on the Internet.

• Information database on intoxication

(http://www.j-poison-ic.or.jp/homepage.nsf)

Administered by the Japan Poison Information Centre, this database which functions as a search engine on household products, etc. is available on the Internet.

Registered agricultural chemicals directory

(http://www.acis.go.jp/toroku/torokuindex.htm)

Administered by the Agricultural Chemicals Inspection Station, data on registered agricultural chemicals (category, name, usage, and applicable crops, etc.), expired agricultural chemicals (active ingredients, category, name, usage, etc.) and standards on agricultural chemicals are available.

• Integrated system of provision of information on chemical substances (http://www.safe.nite.go.jp)

As a part of the Infrastructure Improvement Program for the Safety Management of Chemical Substances of the Ministry of the Economy, Trade and Industry (METI), the Chemical Management Centre of the National Institute of Technology and Evaluation (NITE) has been providing a broad range of information on chemical hazards through database with search function on the internet since 1999. This database consists of three sub-systems: the Total Search System for Chemical Substances, the PRTR Chemicals Database and the Existing Chemical Substances Safety Evaluation Data. Specifically it provides information on i) Japan's regulatory system, ii) overseas regulations, etc., iii) physical and chemical properties, iv) hazards, v) exposure, vi) risk assessment, etc. concerning chemical substances.

• PRTR Homepage

(http://www.env.go.jp/chemi/index.html)

The data disclosure system is available based on the PRTR System. The database with search engine on chemicals specified in the Law Concerning the Reporting, etc. of the Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management is also available.

• Japan Industrial Safety and Health Association Homepage (http://www.jisha.or.jp/)

The homepage provides information such as document retrieval regarding safety and health documents.

• Japan Advanced Information Centre of Safety and Health Homepage (http://www.jaish.gr.jp/)

It is possible to search approximately 55,000 chemicals published under the Industrial Safety and Health Law as well as their dangerousness and hazardousness (MSDS).

• National Institute for Environmental Studies Homepage

(http://www.nies.go.jp/index-j.html)

Administered by the National Institute for Environmental Studies, the homepage provides the Chemical Substances Database (WebKis-Plus).

• Risk Communication Homepage

(http://www.env.go.jp/chemi/communication/index.html)

The Risk Communication Homepage provides information including case studies and booklets on risk communication and PRTR, educational material to cultivate a sense of environmental risk and information on the Roundtable Conference on Chemical Substances and the Environment.

DATA CATEGORY	LOCATION	SOURCE	TARGET AUDIENCE	ACCESS METHOD	ТҮРЕ
Amount of production and import	METI	Survey on actual situation of production and import quantities of chemical substances	Public	Internet	Database (partly available in English)
Statistics of industrial production, shipments and inventories	METI	Statistical information on production, shipments and inventories	Public	Publication, Internet	Publication, database (available in English)
Toxicity statistics	MHLW	Vital Statistics for Population	Public	Internet	Database (available only in Japanese)
Agricultural chemicals registration	Agricultural Chemicals Inspection Station	Registration based on Agricultural Chemicals Regulation Law	Public	Internet	Database (available only in Japanese)
Environmental monitoring results	MOE	Chemical substances and the environment	Public	Publication	Publication (available both in Japanese and English)
Inventory of chemical substances regulated by Law Concerning the Evaluation of Chemical Substances and Regulations of Their Manufacture, etc.	NITE	Published by the government in official gazette	Public	Internet	Database (available only in Japanese)
Amounts of production and import of the Designated Chemicals under the Law Concerning the Evalution of Chemical Substances and Regulations of Their Manufacture, etc. (chemicals produced or imported in amounts over 100 tons)	METI	Notification based on Law Concerning the Evaluation of Chemical Substances and Regulations of Their Manufacture, etc.	Public	Internet	Database (available only in Japanese)

2 Procedures for the collection and dissemination of data

• National Institute of Health Sciences (NIHS)

The National Institute of Health Sciences (NIHS) publishes the following information through the Internet.

- Japanese translations of International Programme on Chemical Safety (IPCS) documents
 Japanese translations (abridged) of Environmental Health Criteria (EHC)
 Japanese translations (complete and abridged) of Concise International Chemical
 Assessment Documents (CICAD)
 - Japanese translations of International Chemical Safety Cards (ICSC)
- Information related to the management of health hazards (information regarding the management of health hazards, case examples of accidents caused by chemical substances, information regarding chemical disasters and chemical terror, etc.)
- Laws regarding chemical substances
- Global Information Network on Chemicals (GINC) Homepage
- Chemical Substances Toxicity Database covering the reports of existing chemical substances toxicity tests conducted in Japan, including the tests for the OECD's HPV (High Production Volume) Project.

• National Institute of Technology and Evaluation (NITE)

- The safety evaluations of existing chemical substances undertaken by the Ministry of Economy, Trade and Industry (METI) as part of the Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture etc. of Chemical Substances, after discussion by the Review Committee of Chemical Substances Council, the results of evaluation of chemical substances once published are updated on the homepage of the Chemical Management Centre, NITE as Safety Evaluation Data Regarding Existing Chemical Substances.
- The Chemical Substances Safety (Hazard) Sheets discussed and compiled for each chemical substance by the Subcommittee for Safety Assessment and Management under Management Committee/Review Committee of Chemical Substances Council had been updated and published. However, from FY2002 these sheets have developed into even more detailed Hazard Evaluation Reports that are published accordingly. Also the result of risk assessments which are conducted based on these reports are published as Initial Risk Assessment Reports.

• Chemicals Evaluation and Research Institute

The Chemicals Evaluation and Research Institute publishes the following databases through the Internet.

- Safety evaluation data
- Safety evaluation sheets
- Biodegradability estimation system

• National Institute for Environmental Studies

National Institute for Environmental Studies publishes the following databases through the Internet.

- Endocrine Disrupting Chemicals Database
- Estrogen Activity by Chemical Sabstances Database
- Chemical Substances Database (WebKis-Plus)

- Environmental Chemical Fate Model Database
- EnvMethod Database

8 3 Chances to use international documents

A large number of international documents such as Environmental Health Criteria (EHC), Concise International Chemical Assessment Documents (CICAD) can be accessed via the Internet. Part of these is available in Japanese.

Table 8-2 Chances to use international documents

DOCUMENT	LOCATION	ACCESS	ACCESS METHOD
Environmental Health Criteria (EHC) (IPCS)	NIHS (as IPCS participating organization. For some criteria, Japanese-translated versions are available)	Public	Print, Internet
Health and Safety Guide (HSG) (WHO)			CD-ROM
Concise International Chemical Assessment Documents (CICAD) (IPCS)	NIHS (as IPCS participating organization. For some criteria, Japanese-translated versions are available)	Public	Print, Internet
International Chemical Safety Cards (ICSC) (IPCS/EC)	NIHS (as IPCS participating organization. For some criteria, Japanese-translated versions are available)	Public	Print, Internet
Prior Informed Consent (PIC) for International Trade in Harmful Chemicals and Pesticides (FAO/UNEP)		Public	Print, Internet
FAO/WHO Agricultural chemical safety data sheet		Public	Print, Internet
Documents related to the Joint FAO/WHO Meeting on Pesticide Residues (JMPR)	NIHS	Public	Print, Internet
OECD Guidelines for the Testing of Chemicals	NIHS (For some criteria, Japanese- translated versions are available)	Public	Print
GLP (Good Laboratory Practice) Principle	NIHS NITE (published in Japanese as a document related to GLP chemical substances)	Public	Internet
GMP (Good Manufacturing Practice) Principle		Public	Internet

4 Possibilities to use international databases

International databases such as ILO/CIS are available via the Internet.

Table 8-3 Possibilities to use international databases

DATABASE	LOCATION	ACCESS	ACCESS METHOD
ILO/CIS		Public	Internet
CAS Database		Public	Internet
Global Information Network on Chemicals (GINC)	NIHS	Public	Internet
STN Database		Public	Internet

8 5 Information exchange systems

Information from international organizations, etc. is conveyed to the relevant government agencies through the focal points listed in Table 10-1. The relevant government agencies further disseminate information to the public and/or related groups such as local authorities as necessary.

Technological infrastructure

Overview of the research infrastructure

• National Institute of Health Sciences (NIHS)

The National Institute of Health Sciences (NIHS) undertakes tests, research and study to correctly assess the quality, safety and efficacy of pharmaceuticals, foodstuffs and other chemical substances which are found in the living environment. The results are mainly reflected in the administration by the Ministry of Health, Labour and Welfare (MHLW), and serve to maintain and improve the health of people and their living environment.

Furthermore, it reviews the applications for approvals, re-examintions and re-evaluations of production and import of pharmaceuticals and medical devices, and the examination necessary for re-examination and re-evaluation. For this purpose, the Pharmaceuticals and Medical Devices Evaluation Centre was established in FY1997 and has taken measures for a prompt and exact reviews.

• National Institute of Advanced Industrial Science and Technology (AIST)

While developing a comprehensive method for the risk assessment of chemical substances, the National Institute of Advanced Industrial Science and Technology (AIST) carries out individual assessment of the chemicals such as Designated Chemicals under the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management.

• National Institute for Environmental Studies (NIES)

The National Institute for Environmental Studies (NIES) undertakes study and research and the collection, compilation and provision of domestic and overseas data relating to the preservation of the environment. The results of this research are widely issued in so many publications including the Institute's own circulations to academic journals.

• Facilities conforming to the criteria of GLP for chemical substances

Regarding notification, etc. stipulated in the Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., in principle, the government establishes a condition for acceptance of data to conduct tests based on the OECD's testing guideline at the facilities conforming to the criteria of OECD/GLP (Good Laboratory Practice). In order to ensure the reliability of data, the Ministry of Health, Labour and Welfare (MHLW) (for toxicity, etc.) and the Ministry of Economy, Trade and Industry (METI) (for bio-degradability, bio-accumulation, etc.) conduct inspections of testing facilities based on the OECD's Guidance for the conduct of Laboratory Inspection and Study Audits. Furthermore, there are regulations regarding the mutual acceptance of data, etc. complying with the OECD/GLP standard in the Agreement on Mutual Recognition between Japan and European Community.

Overview of the future prospects of the electronic information system in government agencies

The Japanese Government has been actively promoting the informatisation of administration and advancing the necessary upgrading so that, in principle, administrative procedures based on laws can be done through online by March 2004. Furthermore, prior to these measures the following measures have been taken.

• The Law concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

Submission by CD-R was introduced for the submission of documents attached to notification of new chemical substances in June 2002 and an online (dial-up network only) submission offering system regarding low-volume new chemical substances was introduced in June 2001.

• Poisonous and Deleterious Substances Control Law

Regarding the registration system for the production and import of poisonous and deleterious substances, business establishments handling the poisonous and deleterious substances registration system have been operating since 1997 to allow applications using electronic media such as diskets.

• Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

Online notification from businesses regarding amounts of emission and transfer of Designated Chemicals has been made possible through a dial-up line or the Internet.

Overview of technical training and education programmes

• Ministry of Economy, Trade and Industry (METI)

In accordance with the legislation of the PRTR system, the Ministry of Economy, Trade and Industry (METI) undertakes education for officials in charge of enforcement of the laws of national or local public organisations on the content of this law, international trends surrounding chemical substances, scientific methodology such as the assessment of the hazard/risk of chemical substances as well as the necessary knowledge for the management of chemical substances such as risk communication methods.

• Ministry of the Environment (MOE)

The National Environmental Training Institute (NETI) provides the Chemical Substances Administration Programme targeting employees at local public organisations to acquire a basic knowledge on chemical substances such as relations between chemical substances and environmental risk, risk management, risk assessment, laws and regulations regarding chemical substances and risk communication.

Chapter 10

International cooperation

10 1 Cooperation and involvement with international organisations, groups and agreements

For each of the relevant international organisations, focal points are nominated. Information is exchanged through those focal points.

Table 10-1 Focal points for international organisations programmes and groups

INTERNATIONAL ORGANISATIONS, ETC.	CONTACT POINTS
Inter-Governmental Forum on Chemical Safety (IFCS)	MHLW
United Nations Environment Programme (UNEP)	MOFA
International Programme on Chemical Safety (IPCS)	MHLW/NIHS
World Health Organization (WHO)	MOFA MHLW
Food and Agriculture Organization (FAO)	MOFA
International Labour Organization (ILO)	MOFA MHLW
OECD	MOFA

Japan has joined several international conventions regarding chemical management such as the Stockholm Convention on Persistent Organic Pollutants (POPs Convention).

Table 10-2 Participation in international agreements/procedures on chemical management

INTERNATIONAL AGREEMENTS	COMPETENT GOVERNMENT MINISTRIES AND AGENCIES
Agenda 21 United Nations Commission on Sustainable Development (CSD)	MOFA MOE
UNEP London Guidelines	MOFA
FAO Code of Conduct	MOFA MAFF
ILO Convention No. 170 (The Chemicals Convention)	MOFA MHLW
UN Recommendations on the Transport of Dangerous Goods	MOFA
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC Convention)	MOFA
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	MOFA MOE
Stockholm Convention on Persistent Organic Pollutants (POPs Convention)	MOFA
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention)	MOFA
GATT/WTO Agreement (regarding trade of chemical substances)	MOFA MOF MHLW MAFF METI
Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction	MOFA METI
Agreement on Mutual Recognition between Japan and the European Community (regarding GLP for chemicals and GMP for pharmaceutical products)	MOFA MHLW MAFF METI

10 2 Participation in appropriate technological assistance projects

• ASEAN Seminar for workers for chemical producing companies (METI)

The Association for Overseas Technical Scholarship (AOTS) (http://www.aots.or.jp/eng/indexeng.html) has been providing a one-week long training seminar for about 20 workers of chemical producing companies from ASEAN countries (excluding Brunei) in its training centre once or twice a year. The main content is presentations of measures of the Japanese chemical industry regarding responsible care activity, the legal system regarding recycling/environment and GHS, as well as factory tours and workshops.

• Despatch of experts to chemical industries in ASEAN (METI)

As a part of its training projects, the Japan Overseas Development Corporation (JODC) (http://www.jodc.or.jp) has been dispatching experts of the Japanese chemical industry for a period of two weeks or so to and evaluate responsible care activities in the chemical industry in ASEAN countries and hold seminars.

• The cooperation project on risk management technology of chemical substances in Malaysia (METI, JICA)

Ministry of Economy, Trade and Industry (METI) and the Japan International Cooperation Agency (JICA) conduct this project in cooperation with the Ministry of Science, Technology and the Environment (MOSTE) of Malaysia, with the aim of contributing to the enhancement of management of hazardous chemicals by offering, thru the Environmental and Bioprocess Technology Centre of SIRIM Berhad, a public corporation of Malaysia, assessment and management services to the industry of Malaysia regarding the safety of chemical substances. METI and the JICA have implemented this project between April 1998 and March 2002. Specifically, the project consisting of the dispatch and acceptance of experts, and equipment supply, transfers technology regarding mutagenicity and ecotoxicity tests, risk assessment, waste water disposal and sample analysis.

Chapter 11

Raising awareness and promote understanding of management of chemical substances among workers and the public

11 1 Workers

11 1.1 Responsibilities of employers regarding education, etc. of workers

Regarding raising awareness and promoting their knowledge on chemical substances, the following obligations of employers are stipulated in the Industrial Safety and Health Law and related regulations.

11 1.1.1 Appointment of operations chiefs

When employers have their workers engage in the production and handling work of certain harmful chemical substances, they are obliged to appoint operations chiefs among those who have completed skill training course at designated institutions and to assign this chief to perform the supervision of other workers. The skill training course includes knowledge of health impairments caused by chemical substances and their preventive measures. Both contents and hours of training courses are laid down. Furthermore, employers are also obliged to provide to work chiefs the opportunities to receive education or trainings in order to improve their capacity in their respective duties.

11 1.1.2 Implementation of safety and health education, etc.

When employers have their workers to engage in production or handling of certain harmful chemical substances, employers are recommended to make efforts to provide safety and health education including impairments of the chemicals which they may handle for their workers.

11 1.1.3 Implementation of education at work

When employing workers or changing the contents of their work, employers are obliged to provide the workers with safety and heath education. The contents of the education are items necessary for the workers to perform their work, such as i) hazard and toxicity of machines and raw materials, etc. and ways to handle them properly, ii) the functions of safety apparatus, harmful property controlling apparatus or protective equipment and the method to handling, and iii) causes and prevention of accidents of disease at work.

11 1.1.4 Labelling and notification of chemical substances

In the case that certain harmful chemical substances are delivered or supplied, employers are obliged to label the containers and packs of certain harmful chemical substances with their name and effect on human health and provide MSDS. Employers are obliged to enhance the understanding of workers regarding the MSDS notification items through ways including posting them at all times in the workplace. Furthermore, regarding chemicals not specified in the related laws or regulations, it is instructed by the guideline to label them or provide MSDS.

11 1.1.5 Dissemination of the content of MSDS

Employers who receive MSDS are obliged to enhance understanding of the content of MSDS among their workers through such means as displaying MSDS in the workplace.

11 1.1.6 Measures based on the guideline for chemical substances management

The Guidelines for the Necessary Measures to Prevent Health Impairments to Workers due to Chemical Substances, etc. stipulates the principle implementation items in relation to management of chemical substances in the workplace to advance the voluntary management of chemical substances by employers and contribute to the prevention of health impairment among workers. Specifically employers themselves undertake the necessary examinations on toxicity, etc., and based on the results take measures appropriately and effectively to prevent workers' health impairment caused by chemical substances. The implementation items stipulated in this guideline include i) to formulate plans to lay out specific implementation tasks for appropriate management of chemical substances and to have workers fully aware of those tasks, ii) identify the toxicity, etc. or undertake risk assessment of chemical substances, etc. which the workers may handle, iii) to provide safety and health education on the necessary items to prevent health impairment caused by handling of chemical substances, etc., and iv) regularly training prepared for emergency cases including leaking of a large quantity of chemical substances, etc.

11 1.2 Projects for raising awareness of chemical substances

11 1.2.1 Japan Advanced Information Centre of Safety and Health (JAISH)

The Ministry of Health, Labour and Welfare (MHLW) (then-Ministry of Labour) established the Japan Advanced Information Centre of Safety and Health (JAISH) in January 2000 with the aim of providing safety and health information on the Internet and supporting health and safety activities in the workplace, through implementation of virtual simulation of hazardous experience and others as well as to enhance the interest in safety of the general public. The JAISH homepage (http://www.jaish.gr.jp/) provides a search service on the hazard and toxicity (MSDS) of approximately 55,000 chemical substances published under

the Industrial Safety and Health Law, and presents cases of industrial accidents due to intoxication by chemical substances. These services are free of charge.

11 1.2.2 National Institute of Health Sciences (NIHS)

The National Institute of Health Sciences (NIHS) undertakes tests, research and study to correctly assess the quality, safety and efficacy of pharmaceuticals, foodstuffs and other various chemical substances which are found in the living environment. NIHS also mandates to approve the production and import of pharmaceuticals and medical devices, and conduct examination necessary for re-examination and re-evaluation. The NIHS homepage (http://www.nihs.go.jp/) widely provides people in general with information regarding health and safety, such as information on pharmaceuticals, medical devices, foodstuffs and chemical substances.

1 1.2.3 Japan Small and Medium Enterprise Corporation (JASMEC)

The Japan Small and Medium Enterprise Corporation (JASMEC) (http://www.jasmec.go.jp) holds training sessions, publishes and distributes pamphlets and enhances the system to respond to questions, in order for small and medium enterprises, in particular, to smoothly respond to the measures based on the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management and the Law for Ensuring Implementation of Recovery and Destruction of Fluorocarbons concerning Specified Products.

Concrete projects

- Providing explanation of outline of the laws on the homepage
- Establishing a free consultation centre regarding the laws (staffed by specialists on responding to environment and safety issues)
- Holding free training workshops throughout Japan
- Distributing pamphlets and related reports

11 1.2.4 Center for Environmental Information Science (CEIS)

Center for Environmental Information Science Homepage (http://www.ceis.or.jp) provides information of PRTR and risk communication regarding chemicals for the public.

11 2 The public

Promoting understanding and raising awareness of management of chemical substances through a variety of methods such as lectures, distribution of pamphlets, and publication through the Internet.

Chapter 12

Available and necessary resources for chemical management

12 1 Available and necessary resources at government organisations

Measures against endocrine-disrupting-chemical issue

NAME	INITIAL BUDGET OF FY2001	MAIN MEASURES		
MEXT	2,057	 Promotion of fundamental research Collection and provision of information Research support through scientific research subsidy 		
MHLW	192 + research expenditure	 Research on human health effects and development of test methods Compilation of a database regarding health effects Implementation of screening tests Research support through the Ministry's Scientific Research Grant Prgramme (Investigation of endocrine-disrupting mechanisms, epidemiological research, etc.) 		
MAFF	1,157	 Clarification of effects on agricultural, forestry and fishery products Development of degradation and detoxification technologies Establishment of identification technology for agricultural chemicals Development, etc. of risk assessment methods for trace materials in food Actual condition surveys, etc. of the effects on seafood 		
METI	838	 Development of screening test methods Risk assessment, development of technology for correct management, etc. 		
MLIT	1,051	- Tokyo Bay Revival Project - Research regarding the assessment of chemical substance traces in sewage		
MOE	1,836	 Surveys on the state of environmental pollution and its reproductive impact, etc. Risk assessment, certification of test methods Development of methods of studying reproductive toxicity for Agricultural chemicals 		
Total	7,131 partial figure + research expenditures			
Note: Unit: million	ote: Unit: million yen. Expenditures for personnel (compensation) and office administration and maintenance are not included.			

Measures against persistent organic pollutants (POPs)

NAME	INITIAL BUDGET OF FY2001	MAIN MEASURES
Cabinet Office	3,275	 Support for the construction of waste disposal facilities implemented by local public corporations, etc.
NPA	14	- Identification
MEXT	2,347 partial figure	 Development of filtering technologies for dioxins in exhaust gas Promotion of fundamental research Research support through scientific research subsidy
MHLW	332 + research expenditure	 Regulations on production and use (enforcement of the Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.) Improvement of a food inspection system Survey and research to investigate health effects Examination of measures to prevent exposure of workers during the disposal of hazardous wastes such as PCB Surveys on health effects among workers (dioxins)
MAFF	424	 Promotion of appropriate management of underground agricultural chemicals Development of appropriate disposal technology for leftover agricultural chemicals
METI	1,503	 Regulations on production and use (enforcement of the Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.) Measures against persistent organic pollutants Measures against dioxins
MLIT	11,857	 Tokyo Bay Revival Project Research and examination regarding the risk management of chemical substances in sewage
MOE	105,663	 Regulations on production and use (Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.) Development of disposal technology for POPs waste, and stockpiling Measures against the unintentional production including dioxins and HCB Examination of domestic implementation plan, environmental monitoring, etc.
Total	125,415 partial figure and research expenses	

Note 1: Including measures against dioxins.

Note 2: Unit: million yen. Expenditures for personnel (compensation) and office administration and maintenance are not included.

12 Indispensable resources at government organisations to assume responsibility of the chemical substance management

Table 12-3 Number of officials at the relevant bureaus

[MINISTRY OF HEALTH, LABOUR AND WELFARE (MHLW)] ce of Chemical Safety, Pharmaceutical and Food Safety Bureau mical Substance Investigation Division, Industrial Safety and Health Department, Labour ndards Bureau [MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES (MAFF)]	12 8 22 14
mical Substance Investigation Division, Industrial Safety and Health Department, Labour ndards Bureau	22
ndards Bureau	22
[MINISTRY OF AGRICULTURE FORESTRY AND FISHERIES (MAFE)]	
[IMMUSIKI OF Admics Links Tokes III Alb ISHEMES (MALT)	
ironment Policy Division, Minister's Secretariat	14
nt Products Safety Division, Food Safety and Consumer Bureau	
[MINISTRY OF ECONOMY, TRADE AND INDUSTRY (METI)]	
	54
micals Safety Office, Manufacturing Industries Bureau	8 (54 partial figure)
mical Weapon and Drug Materials Control Policy Office, Manufacturing Industries Bureau	20 (54 partial figure)
ne Layer Protection Policy Office, Manufacturing Industries Bureau	14 (54 partial figure)
mical Risk Assessment Policy Office, Manufacturing Industries Bureau	6 (54 partial figure)
micals Division, Manufacturing Industries Bureau	25
[MINISTRY OF THE ENVIRONMENT (MOE)]	
ironmental Health and Safety Division, Environmental Health Department	23
ironmental Risk Assessment Office, Environmental Health and Safety Division, ironmental Health Department	8 (23 partial figure)
micals Evaluation Office, Policy Planning Division, Environmental Health Department	4
bal Environmental Issues Division, Global Environment Bureau	15
ce of Fluorocarbons Management Policy, Global Environmental Issues Division, Global ironment Bureau	6 (15 partial figure)
eral Affairs Division, Environmental Management Bureau	26
ce of Dioxins Control, General Affairs Division, Environmental Management Bureau	4 (26 partial figure)
Quality Management Division, Environmental Management Bureau	27
cy Planning Division, Water Environment Department	15
ter Environment Management Division, Water Environment Department	14
Environment Management Division, Water Environment Department	22
icultural Chemicals Control Office, Soil Environment Management Division, Water ironment Department	6 (22 partial figure)
ce of Groundwater and Ground Environment,	
ter Environment Department	6 (22 partial figure)
ste Management Division, Waste Management and Recycling Department	21
	29
	12 (29 partial figure)
: As of August 2003.	

Annex 1. Glossary

AGRICULTURAL CHEMICALS: In Agricultural Chemicals Regulation Law, "Agricultural Chemicals" shall mean fungicides, insecticides and other chemicals (including those prescribed by the Cabinet Order among the products using agricultural chemicals as raw material or material for the said use set by a government ordinances) used for control of fungi, nematodes, mites, insects, rodents or other animals and plants as well as viruses (collectively called "Insect pests") which are injurious to crops (including trees and agricultural and forestry products, and hereinafter called "crops") and growth accelerator and germination depressor and other chemicals used for the promotion or depression of physiological functions of crops. In the application of this law, natural enemies used as a means for the biological control of pests shall be regarded as agricultural chemicals.

HOUSEHOLD PRODUCTS: According "the Law for the Control of Household Products Containing Harmful Substances, Household Products" are defined as products that general consumers mainly use in their daily life.

Household Products in the Household Goods Quality Labelling Law defines products as follows:

- 1. Among textile products, goods synthetic resin processed products, the production of electrical machinery and equipment, and miscellaneous industrial products that general consumers use in daily life, the said Law defines them as goods whose quality are very difficult for general consumers to confirm when purchased and goods whose quality particularly need to be identified and those provided by a government ordinance.
- 2. Among the aforementioned materials of textile products as well as textile products used as materials provided by a government ordinance, where upon purchasing consumers have extreme difficulties in discerning the quality of the products. It also defines as products, textiles deemed necessary to identify the quality to improve the appropriateness of labelling and which are provided by a government ordinance.

INDUSTRIAL CHEMICALS: Chemicals used for industrial purposes.

RURAL AREAS: Total area of towns and villages in the Report on National Census.

"SICK HOUSE SYNDROME": There are a number of reported cases who complained various kinds of symptoms in new or renovated houses where higher concentration of indoor air pollutants exist resulting from enhanced air tightness and use of chemical-emitting materials. Due to diversity of symptoms, lack of information on mechanism of the symptoms, and complexity of the possible factors, those cases are called "Sick House Syndrome".

URBAN AREAS: Total area of cities (including the Tokyo Special Districts) in the *Report on National Census*. In other words, urban areas of the whole nation shall mean the total city area of Japan and urban areas of prefectures shall mean the total city area of prefectures.

Annex 2. Reports and articles serving as useful reference for chemical substances management

The Basic Environment Plan (2000)

Environmental Strategy Division, Environmental Policy Bureau, Ministry of the Environment (MOE)

Report on Toxicity Tests of Chemical Substances

Supervising editor: Office of Chemical Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW)

Publisher: Liaison Council on the Promotion of Chemical Substances Examination

Data Collection on Safety Evaluations of Existing Chemicals Related to the Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

Supervising editor: Chemical Products Safety Division, Basic Industries Bureau, Ministry of International Trade and Industry (MITI) (currently METI)

Publisher: Japan Chemical Industry Ecology-Toxicology and Information Centre (JETOC)(1992)

Hazard Data Collection on Chemical Substances

Supervising Editor: Chemical Management Policy Division, Manufacturing Industries Bureau, Ministry of the Economy, Trade and Industry (METI)

Publisher: Dai-ichi Hoki

Environmental Risk Assessment of Chemical Substances

Environmental Risk Assessment Office, Environmental Health Department, Ministry of the Environment (MOE)

Intermediate Report on the Deliberation Meeting Regarding the Health Effects of Endocrine Disrupting Chemicals (Study Group on Health Effects of Endocrine Disrupting Chemicals, Ministry of Health and Welfare (MHW), November 1998)

Supplement of Intermediate Report on the Deliberation Meeting Regarding the Health Effects of Endocrine Disrupting Chemicals

(Study Group on Health Effects of Endocrine Disrupting Chemicals, Ministry of Health, Labour and Welfare (MHLW), 26 December 2001)

Hazard Assessment Report of "15 Chemical Substances Which Have Been Suspected to Be Endocrine Disruptors" (Subcommittee on Endocrine Disruptors, Chemical Substance Council, Ministry of Economy, Trade and Industry (METI), April 2002)

Current Status of Testing Methods Development for Endocrine Disruptors

(Subcommittee on Endocrine Disruptors, Chemical Substances Council, Ministry of Economy, Trade and Industry (METI), June 2002)

Strategic Programs on Environmental Endocrine Disruptors (SPEED'98) (1998, revised in 2000)

Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment (MOE)

Tentative Manual for the Measurement of Dioxins in Blood (22 December 2000)

Tentative Manual for the Measurement of Dioxins in Breast Milk (22 December 2000)

Report of the Working Group on Assessment of the Health Effects of Dioxins (26 June 2002)

Environmental Survey of Dioxins

State of Enforcement of the Law Concerning Special Measures Against Dioxins

Dioxin Emissions Inventory (Emission Inventory)

How to Compile a Manual to Ensure Safety

Office of Chemical Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW)

Hospital Monitoring Report on Health Damage in Relation to Household Products

Office of Chemical Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW)

Intermediate Report on the Deliberation Meeting on Indoor Air Pollutants (Sick House Syndrome)

Hazard Assessment Report of Class I Designated Chemicals under the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

(Subcommittee for Safety Assessment and Management, Management Committee/Review Committee, Chemicals Substances Council, Ministry of Economy, Trade and Industry (METI), February 2003)

Manual for PRTR Release Estimation Methods.

Chemical Management Policy Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry (METI), Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment (MOE)

Overview of PRTR Data

Chemical Management Policy Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry (METI), Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment (MOE)

Citizens' Guide for Understanding PRTR Data

Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment (MOE)

Guideline to Make Product Safety Data Sheets (Revised Edition)

Supervising Editor: Office of Chemical Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW); Chemical Substances Investigation Division, Industrial Safety and Health Department, Labour Standards Bureau, Ministry of Health, Labour and Welfare (MHLW); Chemical Management Policy Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry (METI); Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment (MOE)

Publisher: Japan Chemical Industry Association (JCIA) / Japan Responsible Care Council

Results of POPs Monitoring (2002)

Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment (MOE)

Chemicals in the Environment

Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment (MOE)

Risk Communication Manual on Chemical Substances for Local Governments (2002)

Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment (MOE)

Annex 3. Names and addresses of important organisations

Specialized Agencies' Administration Division, Multilateral Cooperation Department, Foreign Policy Bureau, Ministry of Foreign Affairs (MOFA)

2-11-1 Shiba Koen, Minato Ward, Tokyo 105-8519

TEL +81-3-6402-2560 FAX +81-3-6402-2561

Office of Chemical Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8916

TEL +81-3-3595-2298 FAX +81-3-3593-8913

Chemical Substances Investigation Division, Industrial Safety and Health Department, Labour Standards Bureau, Ministry of Health, Labour and Welfare (MHLW)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8916

TEL +81-3-3502-6756 FAX +81-3-3502-1598

Division of Safety Information on Drug, Food and Chemicals, National Institute of Health Sciences (NIHS)

1-18-1 Kamiyoga, Setagaya Ward, Tokyo 158-8501

TEL +81-3-5717-7179 FAX +81-3-5717-7180

Division of Risk Assessment, Biological Safety Research Center, National Institute of Health Sciences (NIHS)

1-18-1 Kamiyoga, Setagaya Ward, Tokyo 158-8501

TEL +81-3-3700-1429 FAX +81-3-3700-1429

Environment Policy Division, Minister's Secretariat, Ministry of Agriculture, Forestry and Fisheries (MAFF)

1-2-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8950

TEL +81-3-3502-8056 FAX +81-3-3591-6640

Plant Products Safety Division, Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries (MAFF)

1-2-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8950

TEL +81-3-3591-6585 FAX +81-3-3580-8592

Agricultural Chemicals Office, Plant Products Safety Division, Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries (MAFF)

1-2-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8950

TEL +81-3-3501-3965 FAX +81-3-3501-3774

Animal Health and Animal Products Safety Division, Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries (MAFF)

1-2-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8950

TEL +81-3-3502-8206 FAX +81-3-3502-3385

Veterinary Drug and Feed Safety Office, Animal Health and Animal Products Safety Division, Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries (MAFF)

1-2-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8950

TEL +81-3-3502-8097 FAX +81-3-3502-8275

Chemical Management Policy Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry (METI)

1-3-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8901

TEL +81-3-3501-0080 FAX +81-3-3580-6347

Chemicals Safety Office, Chemical Management Policy Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry (METI)

1-3-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8901

TEL +81-3-3501-0605 FAX +81-3-3501-2084

Chemical Weapon and Drug Materials Control Policy Office, Chemical Management Policy Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry (METI)

1-3-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8901

TEL +81-3-3580-0937 FAX +81-3-3580-7319

Ozone Layer Protection Office, Chemical Management Policy Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry (METI)

1-3-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8901

TEL +81-3-3501-4724 FAX +81-3-3501-6604

Chemical Risk Assessment Policy Office, Chemical Management Policy Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry (METI)

1-3-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8901

TEL +81-3-3501-0080 FAX +81-3-3580-6347

Chemicals Division, Chemical Management Policy Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry (METI)

1-3-1 Kasumigaseki, Chiyoda Ward, Tokyo 100-8901

 $TEL + 81 - 3 - 3501 - 1737 \quad FAX + 81 - 3 - 3580 - 6348$

Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975

 $TEL + 81 - 3 - 5521 - 8260 \quad FAX + 81 - 3 - 3580 - 3596$

E-mail: ehs@env.go.jp

Environmental Risk Assessment Office, Environmental Health and Safety Division, Environmental Health Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975

TEL +81-3-5521-8262 FAX +81-3-3581-3578

Chemicals Evaluation Office, Policy Planning Division, Environmental Health Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975

TEL +81-3-5521-8253 FAX +81-3-3581-3370

Global Environmental Issues Division, Global Environment Bureau, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975

TEL +81-3-5521-8246 FAX +81-3-3581-3348

Office of Fluorocarbons Management Policy, Global Environmental Issues Division, Global Environment Bureau, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975 TEL +81-3-5521-8245 FAX +81-3-3581-3348

General Affairs Division, Environmental Management Bureau, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975

TEL +81-3-5521-8290 FAX +81-3-3580-7173

Office of Dioxins Control, General Affairs Davison, Environmental Management Bureau, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975 TEL +81-3-5521-8291 FAX +81-3-3580-7173

Air Quality Management Division, Environmental Management Bureau, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975

TEL +81-3-5521-8293 FAX +81-3-3580-7173

Policy Planning Division, Water Environment Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975

TEL +81-3-5521-8314 FAX +81-3-3593-1438

Water Environment Management Division, Water Environment Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975 TEL +81-3-5521-8313 FAX +81-3-3501-2717

Soil Environment Management Division, Water Environment Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975

TEL +81-3-5521-8322 FAX +81-3-3504-5350

Agricultural Chemicals Control Office, Soil Environment Management Division, Water Environment Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975

TEL +81-3-5521-8323 FAX +81-3-3501-2717

Office of Groundwater and Ground Environment, Soil Environment Management Division, Water Environment Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975 TEL +81-3-5521-8309 FAX +81-3-3501-2717

Waste Management Division, Waste Management and Recycling Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975 TEL +81-3-5501-3154 $\,$ FAX +81-3-3593-8263

Industrial Waste Management Division, Waste Management and Recycling Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975

TEL +81-3-5501-3156 FAX +81-3-3593-8264

Office of Waste Disposal Management, Industrial Waste Management Division, Waste Management and Recycling Department, Ministry of the Environment (MOE)

Central Government Bldg. No. 5, 1-2-2 Kasumigaseki, Chiyoda Ward, Tokyo 100-8975 TEL +81-3-5501-3157 FAX +81-3-3593-8264

Annex 4. Abbreviations used in the text

AFS CONVENTION 2001 International Convention on the Control of Harmful Anti-Fouling Systems for Ships

ASEAN Association of Southeast Asian Nations

CICAD Concise International Chemical Assessment Documents

EC European Commission

EHC Environmental Health Criteria

FAO Food and Agriculture Organization of the United Nations

GATT General Agreement on Tariffs and Trade

Globally Harmonized System for Classification and Labelling of Chemicals

Global Information Network on Chemicals

GMP Good Laboratory Practice
GMP Good Manufacturing Practice

HPV High Production Volume
HSG Health and Safety Guide

ICCA International Council of Chemical Associations

International Chemical Safety Card

Inter-governmental Forum on Chemical Safety

ILO International Labour Organization

IPCS International Programme on Chemical Safety

JCIA Japan Chemical Industry Association

JMPR Joint FAO/WHO Meeting on Pesticide Residues

JRCC Japan Responsible Care Council

Long-range Research Initiative

MAFF Ministry of Agriculture, Forestry and Fisheries
METI Ministry of Economy, Trade and Industry

MEXT Ministry of Education, Culture, Sports, Science and Technology

MHLW Ministry of Health, Labour and Welfare

MLIT Ministry of Land, Infrastructure and Transport

MOE Ministry of the Environment

MOF Ministry of Finance

MOFA Ministry of Foreign Affairs

MOJ Ministry of Justice

MPHPT Ministry of Public Management, Home Affairs, Posts and Telecommunications

MSDS Material Safety Data Sheet

NPA National Police Agency

NIES National Institute for Environmental Studies

NIHS National Institute of Health Sciences

NITE National Institute of Technology and Evaluation

NPA National Police Agency

OECD Organisation for Economic Co-operation and Development

PCB Polychlorinated Biphenyls
PIC Prior Informed Consent

PIC Convention Rotterdam Convention on Prior Informed Consent (PIC) Procedure for Certain

Hazardous Chemicals and Pesticides in International Trade

POPs Persistent Organic Pollutants

POPs CONVENTION Stockholm Convention on Persistent Organic Pollutants

PRTR Pollution Release and Transfer Register

UNEP United Nations Environment Programme

UNITAR United Nations Institute for Training and Research

WHO World Health Organization
WTO World Trade Organization

