

The 4<sup>th</sup> Tripartite Policy Dialogue on  
Chemical Management  
9<sup>th</sup> Sep. 2010, MITA KAIGISHO, Japan

# Current Trends of Chemical Management Policies in Korea

2010. 9. 9.



Chemicals management division,  
MOE

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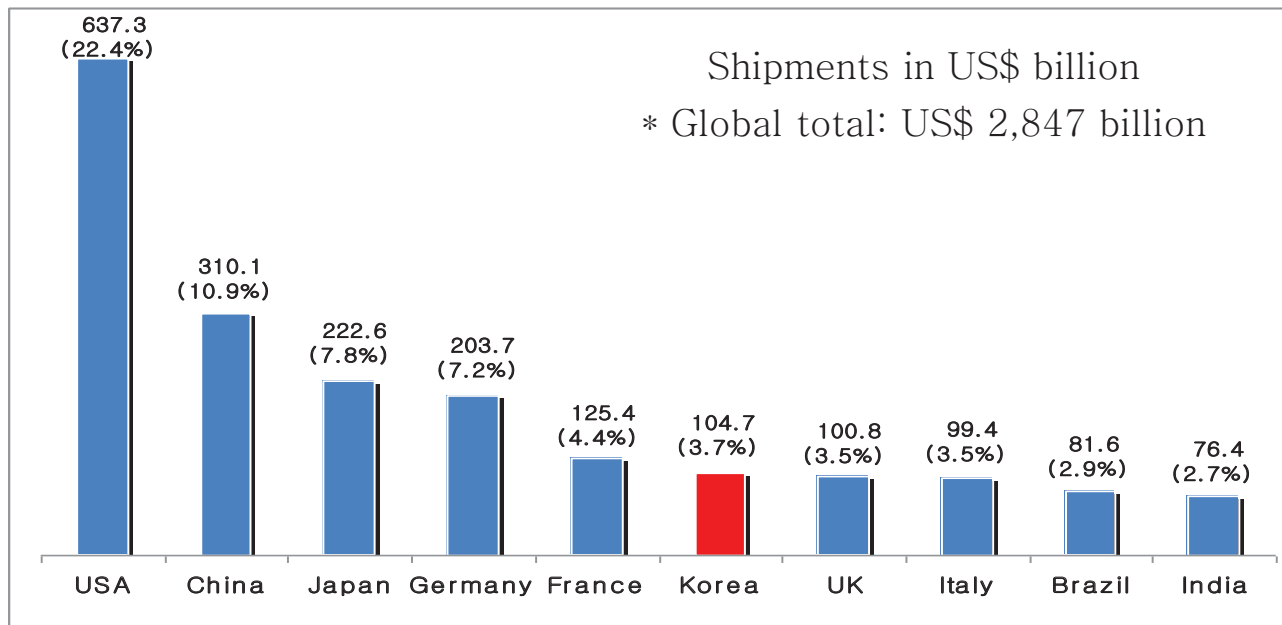
Vision of Advanced Chemicals  
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# 1. Current Status of Chemicals

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## ✚ Current Status of Chemical Industry

- 6<sup>th</sup> largest in the global chemical industry
- Accounts for 13.4% of the domestic manufacturing Industry

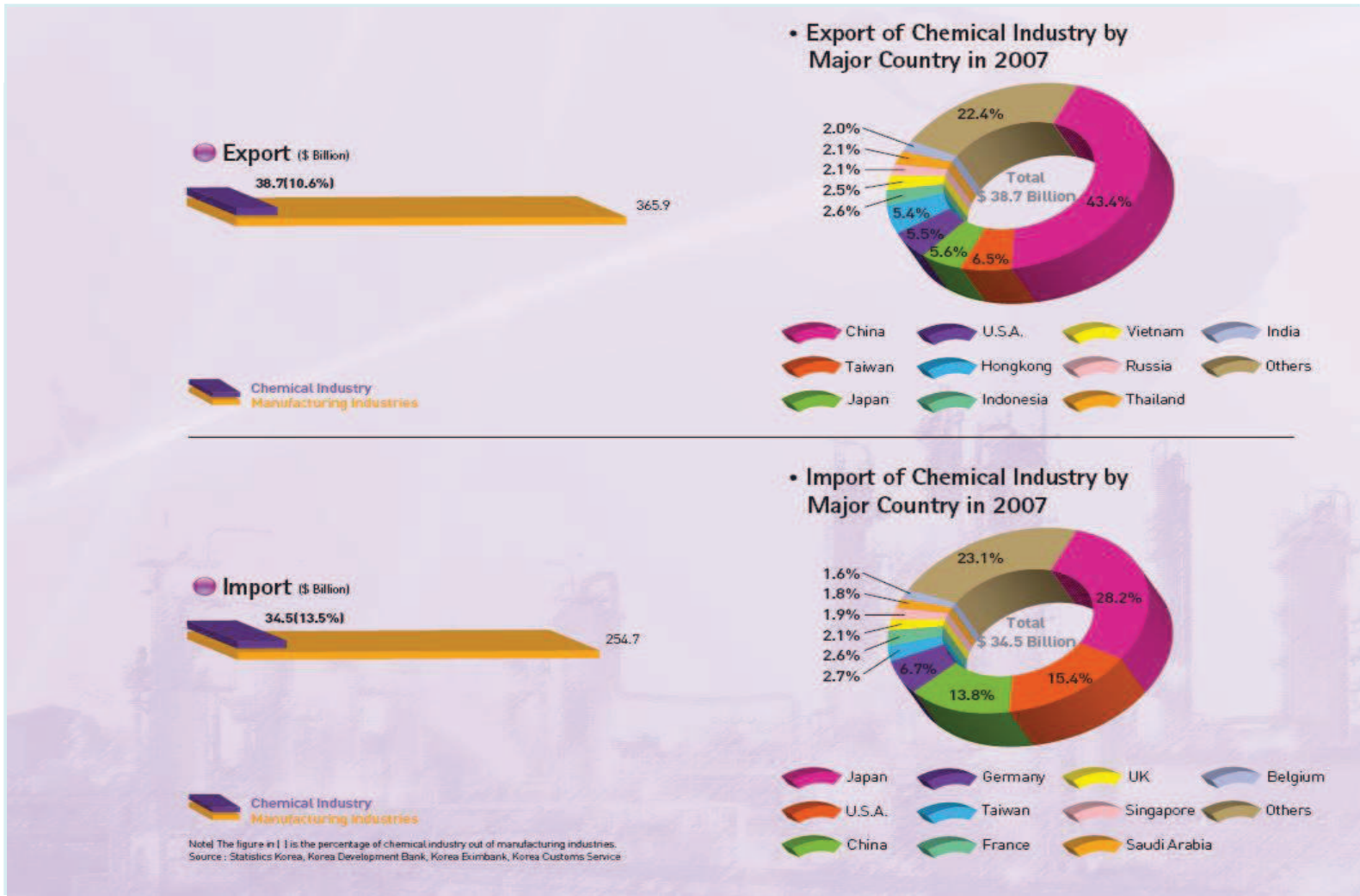


(source: International Council of Chemical Association (2007))

< Shipments of major countries >



# Current Status of Chemical Industry –Export & Import



< Export & Import of Chemical Industry by Major Country 2007 >

## 2. Framework of TCCA

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## ✚ Relevant Laws for Chemicals Management in Korea

✚ 13 laws are managed by 7 ministries (including MoE)

Target	Ministries	Laws
Toxic· Explosive Chemicals in working places	Ministry of Labor	Industrial Safety and Health Act
Agricultural Chemicals, Fertilizers	Ministry for Food, Agriculture, Forestry & Fisheries	Agricultural Chemicals Control Act Fertilizers Control Act
Medical Supplies Narcotics Cosmetics Food additives	Ministry for Health, Welfare Affairs	Pharmaceutical Affairs Act Narcotics control Act Cosmetic Act Food Sanitation Act
Explosives	Ministry of Public Administration & Security	Explosives Safety Control Act Gun, Sword and Gunpowder Control Act
High Pressure Gas, Industrial Products	Ministry of Knowledge & Economy	High Pressure Gas Safety Control Act Quality Management and Industrial Products Safety Control Act
Explosives	Ministry of Land, Transport & Maritime Affairs	Ship Safety Act

## Present TCCA (rev. 2006)

- ❖ Basic law regarding chemicals management in Korea  
“To prevent risk caused by chemicals to human health or the environment” and “to control hazardous chemicals so that everyone can live in a healthy environment”
- ❖ Five Chapters
  - Framework Plan for Hazardous Chemicals Control, TRI, etc.
  - New Chemical Notification, Risk Assessment, etc.
  - Safe Control of Toxic Chemicals & Banned or Restricted Chemicals, Responses to Chemical Accidents, etc.
  - Supplementary Provisions
  - Penalty Provisions

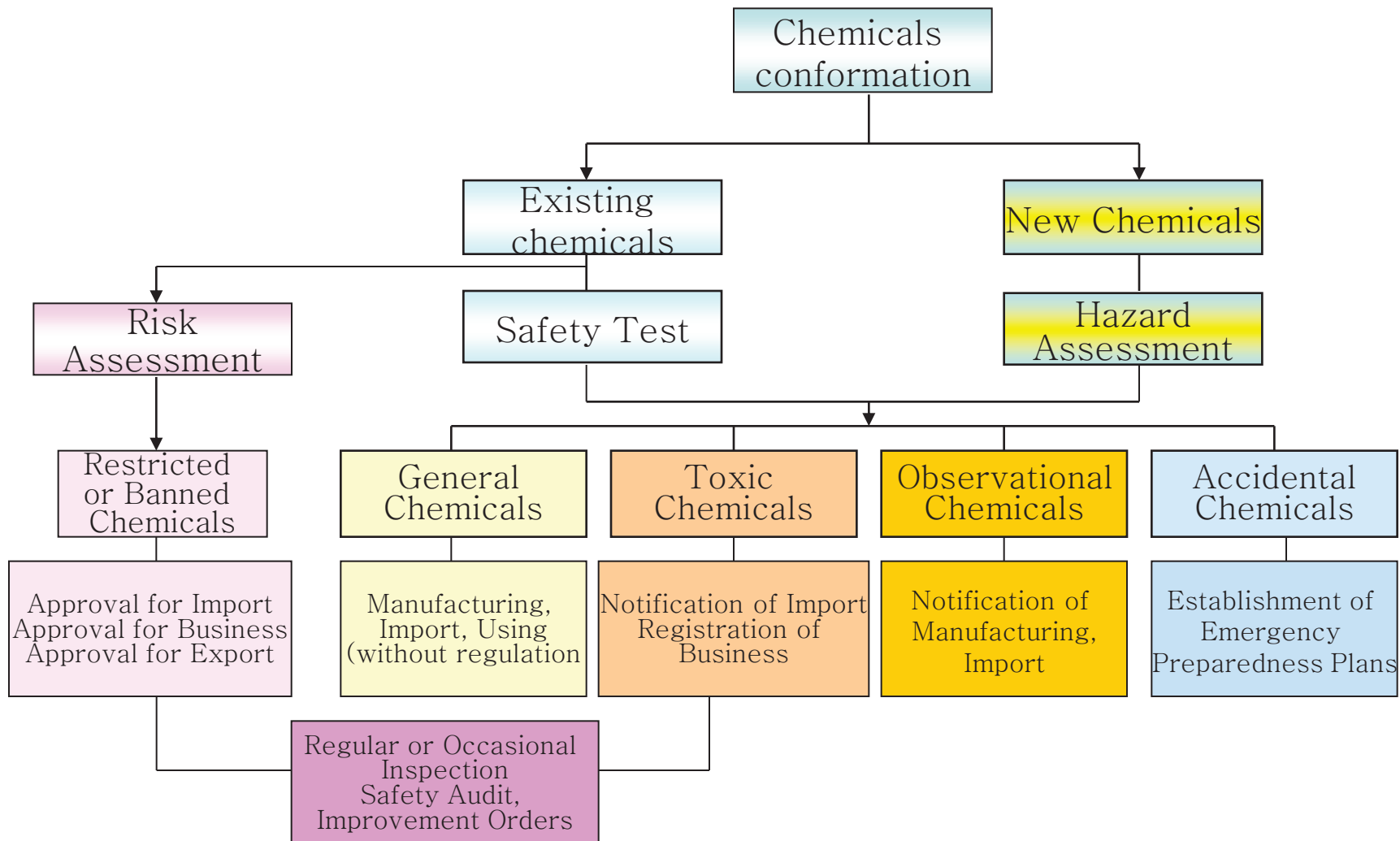


## TCCA Revision Planning in 2010

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- Expansion of the exemption from application of TCCA (Military ammunition and explosives)
- Relaxation of the regulations on import of the restricted and prohibited substances
  - In some cases, a permission of modification → a report of modification
- Additional designation of the substances requiring preparation for accident (56 => 69 Kinds)

# Chemicals Management System



# Chemicals Management in Phases

## Entering to Market

- Any manufacturer and importer of chemical should confirm whether it is new chemical or existing chemical
- For new chemical, Registration is required for its manufacturer or importer (annually about 400 registrations are conducted)
  - Number of requirements : 3(~2006)→6(2007)→9(2009)
- For existing chemical, the government(MOE) produces and evaluates hazard data (15~20 substances/y)

=> toxic chemical (606), observational chemical (57),  
restricted chemical (12), banned chemical (60)

# Chemicals Management in Phases

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## Circulated in Market

- Safety management of toxic chemicals
  - Business operators who deal with toxic chemicals should conduct registration for their type of business
  - And they should prepare relevant facilities which meet safety standards and MOE conducts safety inspection for their facilities
  - Business operator who deal with restricted chemicals should obtain approval for their business

# Chemicals Management in Phases

## Pollutants Release

- **Pollutants Release and Transfer Register (PRTR)**
  - 388 substances—toxic substances, observational substances, carcinogen, etc
  - General information on workplace, annual quantity of chemicals handled and released into the air, water, soil
- **Risk Assessment**
  - Conducting risk assessment for substances feared to cause significant harms to human health and the environment
  - In accordance with the results, MOE can designate relevant substances as restricted or banned chemicals



# Pollutants Release and Transfer Resister (PRTR)

## Targeted substances

- 388 substances—toxic substances, observational substances, carcinogen, etc
  - Group I : substances more than 1ton/y(16 substances including formaldehyde)
  - Group II : substances more than 10ton/y(372 substances including toluene)

## Investigation items

- General information on workplace, annual quantity of chemicals handled
- Quantity of chemicals released into air, water, soil

# Open PRTR data to Public (Public accessibility of PRTR data in Korea)

## Opens PRTR data on the website

- make the public easily accessible to the data
- Help the public better understand information on toxic chemicals

<http://ncis.nier.go.kr/triopen>

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### 1. 업체정보

● [redacted] 의 상세정보

- 주소:
- 연락처:
- 업종: 화합물 및 화학제품 제조업
- 종업원수:

● 배출저감 활동

- 홍보사이트: -
- 홍보자료: -

● 2006년 화학물질 배출량 이동량 정보

- 전체 배출량(kg/년) : 273,169
- 전체 자가배출량(kg/년) : 0
- 전체 이동량(kg/년) : 1,225,612

### 2. 물질정보

번호	연도	CAS No.	화학물질	배출량수치	자가배출량수치	이동량수치
1	2006	7722-84-1	과산화 수소	확인	확인	확인
2	2006	NA	구리 및 그 화합물	확인	확인	확인
3	2006	NA	납 및 그 화합물	확인	확인	확인
4	2006	78-93-3	비탈 베타 케톤	확인	확인	확인

# Management of POPs in Korea

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## POPs Control Act

- Amendment to include New 9 POPs
- Revise a Basic Strategy for POPs management

## Implementation of Convention

- Update National Implementation Plan for POPs
  - Include additional information related to New 9 Chemicals
- Strengthening the Activity for Data Warehouse in East Asia
- Setting up the environmental standard of Crematory(11)

# Management of Nano material

## Background

- As nano technologies are rapidly develop, the potential risks of nano material are gradually increasing
- To understand current status of use, manufacturing and circulation and to set up safe management policy of nano material

## Investigation of present status of circulation of Nano material ('08)

- Investigation of general status of manufacturers and users of nano material
- Statistical analysis of amount and kind of nano material circulated in domestic market
- Analysis of present status of products containing nano material

## Establish nano material inventory ('10~'11)

- Formulating a plan for designing & establishing the inventory
- Investigation foreign cases regarding establishment of nano inventory
- Establish nano material inventory ('11)

## Korea GHS Related Regulations

Regulation	Authority	Remarks
Toxic Chemicals Control Act	Ministry of Environment	27 GHS Hazard Classifications & Labeling for so-called YudokMool (=Toxic Chemicals) designated by NIER.
Industrial Safety & Health Act	Ministry of Labor	Hazard Classifications & Labeling and MSDS for chemicals subject to 27 GHS hazards (16 Physical hazards, 10 Health hazards and 1 Environmental hazard)
Hazardous Materials Act (old: Fire Service Act)	National Emergency Management Agency	Hazard Classification & labeling of 16 Physical hazards.



## Current Implement State of Korea GHS

GHS has been implemented in Korea

under following legislations & relevant competent authorities

Toxic Chemicals Control Act

Substances July 01, 2011, Mixtures July 01, 2013

Industrial Safety & Health Act

Substances July 01, 2010, Mixtures July 01, 2013

Hazardous Materials Act (old: Fire Service Act)

by National Emergency Management Agency

- There is no grace period(GHS is not mandatory under HMA)

## GHS Scope and Application(MoE)

- Classification & Labeling of Substances and Mixtures
- Only Toxic Chemicals defined & published by NIER in government gazette  
(Refer website: <http://ncis.nier.go.kr/main/Index.jsp>)
- Adopted 27 GHS Hazard Classifications (16 Physical hazards, 10 Health hazards and 1 Environmental hazard)
- Currently about 600 kinds of toxic chemicals (equiv. approx. more than 1,500 substances)

## GHS Scope and Application(MoL)

- Substances and Mixtures of Classification & Labeling and SDS
- Adopted 27 GHS hazard classification (16 Physical hazards, 10 Health hazards and 1 Environmental hazard)
- ※ For Yudokmool (Toxic Chemicals specified/published by NIER)  
TCCA will take a precedence over ISHA.

## GHS Scope and Application(NEMA)

- Substances and Mixtures of Classification & Labeling
- Focusing 16 GHS physical hazards

## GHS Label Size

Capacity of the package	Size
$C \geq 500$ litre	450 cm <sup>2</sup> or more $0.25b \leq a \leq 4b$ $0.1 (a \times b) \leq c \times d$
$200 \text{ litre} \leq C < 500 \text{ litre}$	300 cm <sup>2</sup> or more $0.25b \leq a \leq 4b$ $0.1 (a \times b) \leq c \times d$
$50 \text{ litre} \leq C < 200 \text{ litre}$	180cm <sup>2</sup> or more $0.25b \leq a \leq 4b$ $0.1 (a \times b) \leq c \times d$
$5 \text{ litre} \leq C < 50 \text{ litre}$	90cm <sup>2</sup> or more $0.25b \leq a \leq 4b$ $0.1 (a \times b) \leq c \times d$
$C < 5 \text{ litre}$	$0.25b \leq a \leq 4b$ $0.1 (a \times b) \leq c \times d$ 5% or more of surface excluding top and bottom area of package

### 3. Vision of Advanced Chemicals Management

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# Vision of advancement

## Background

- Chemical management systems of each countries are becoming more strict (EU REACH, Japan CSCL..)
- Need to achieve international goal on chemicals management(SAICM)
- Increase of public concern with potential risks of chemical substances

## General Concept

- Establish a new effective and developed management system for **new & existing** chemicals through the analysis of foreign cases like REACH and problems of current system
  - new system will be enforced step by step in a few years
- Main issues of advancement
  - The scope of existing chemicals under registration
  - Communicating information in supply chain
  - Chemical management based on risk information



# Vision of advanced Chemicals Management

## Detailed concept

- Registration data will be expanded by the quantity of manufacture or import
- MOE is considering to require companies to submit risk assessment data for “substances of high concern”
- Substance which show high risks to human health or environment in certain usages should be regulated by restriction or authorization
- Relevant information from registration data and information on regulated usage or authorization need to be communicated in supply chain

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9<sup>th</sup> Sep. 2010, Tokyo prince Hotel, Japan

# Thank you for your attention

SIM

GEUNYEONG(urmyluv@korea.kr)

Chemicals management division

Ministry of Environment , KOREA



환경부

MOE of KOREA