



#### Head office

12F, 48, Digital-ro 33-gil,  
Guro-gu, Seoul, Republic of Korea  
TEL : +82-(0)2-826-9100  
<http://chemtopia.gabia.io/en>

#### Life Environmental Research Center

93, Jungdong-ro 22beon-gil,  
Bucheon-si, Gyeonggi-do, Korea  
TEL : +82-(0)70-7733-3459  
<http://www.biochemtopia.net>

e-mail : [chemtopia@chemtopia.net](mailto:chemtopia@chemtopia.net)





**CAMTOPIA PROVIDES  
ENVIRONMENTAL  
TOTAL SOLUTION**

# CONTENTS

Introduction .....	05
Keyword .....	06
Organization .....	07
History .....	08
Main Business .....	10
<b>CONSULTING</b>	
K-REACH Consulting .....	12
Global Notification of New Chemicals .....	13
K-BPR Consulting .....	14
Product Consulting .....	15
Risk assessment .....	16
QSAR .....	17
GHS MSDS and label service .....	18
<b>IT SOLUTION</b>	
Dr. MSDS .....	19
Dr. CMS .....	20
Dr. ChemDB .....	21
<b>LIFE ENVIRONMENTAL RESEARCH CENTER</b> .....	22



## INTRODUCTION

Chemtopia is an internationally active consulting service company for the industrial chemical, biocides, food contact materials, and consumer goods industry. With location in Korea, Chemtopia helps our clients to register their chemical product in order to place on market in time including Japan, China, Taiwan, Philippines, Malaysia and etc.

We have plenty of experiences and are experts in regulatory affairs and we have a very good relationship with competent authorities, related associations and local industries to assist the clients' business in these countries.

We, Chemtopia can provide the client updated regulatory information arising in Asia countries and cost-effect strategic solutions aligned to the client's business goals and science based regulatory advice. We can cooperate with any laboratory which can meet needs of our clients.

## SERVICE AREA

- Chemical registration into Korea, Japan, China, Taiwan, EU, and ASEAN countries
- K-REACH
- K-BPR
- Product compliance consulting
- Custom clearance support - Product registration
- Toxicity tests scheduling, monitoring in Korean/overseas GLPs (cost effective)
- GHS based MSDS and Labelling in Korean, Japanese, Chinese, etc.
- Web-based and ERP regulatory compliance supporting system & database
- Web-based and ERP MSDS authoring system
- Agrochemical, Cosmetic, Biocide registration
- EH&S Regulatory update
- (Q)SAR
- WET(TRE/TIE) consulting
- Research on eco-toxicity, environmental influence, and life cycle

## KEYWORD



**1<sup>st</sup>** rank

The most Lead Registrations under K-REACH



**18** years

consulting experience



**465** cases

Off-Site Risk Assessment and Integrated Environmental Control Plan



**22** chemicals

Chemical regulatory database



**33** languages

MSDS authoring program providing in various languages

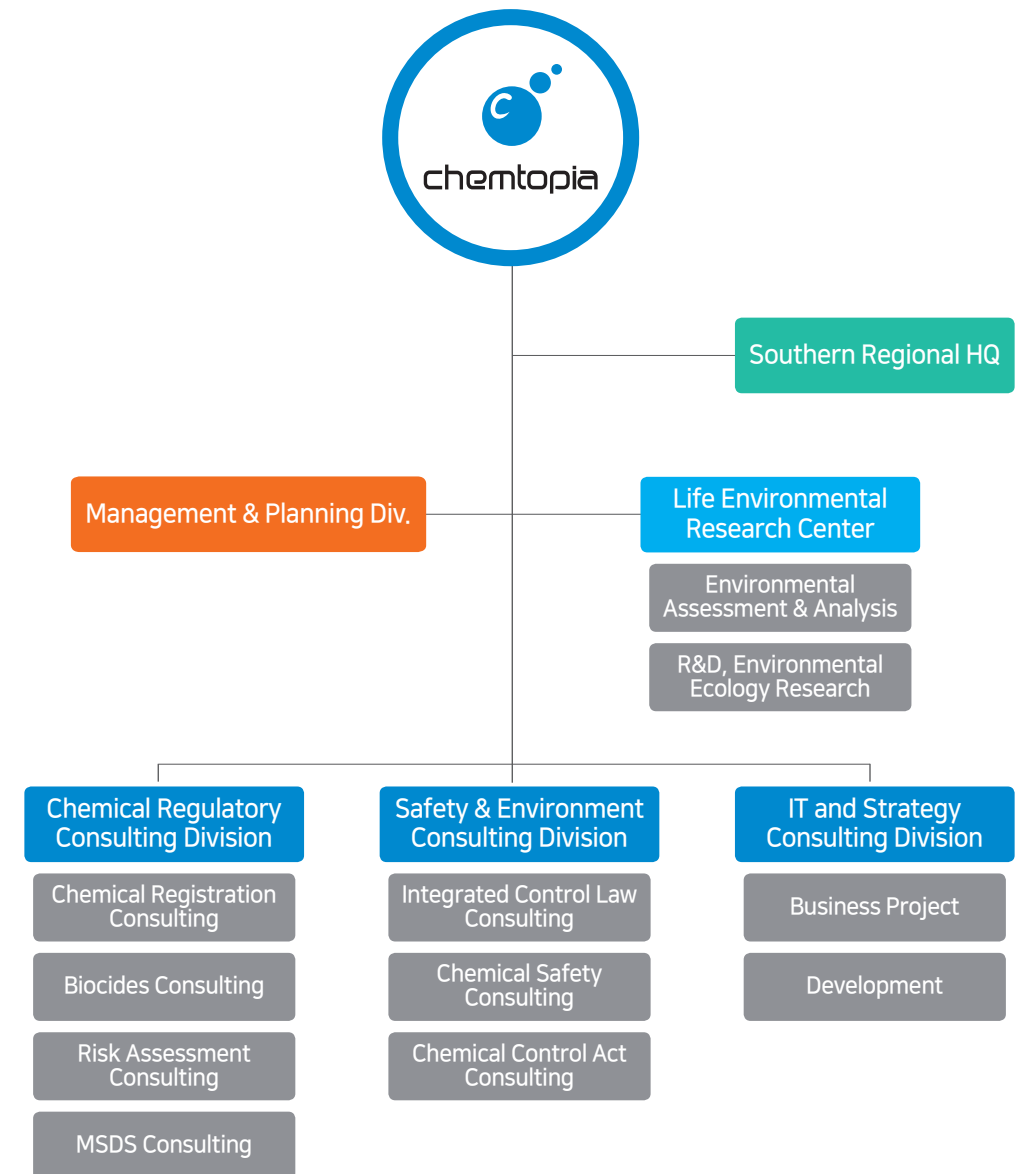


**90** experts

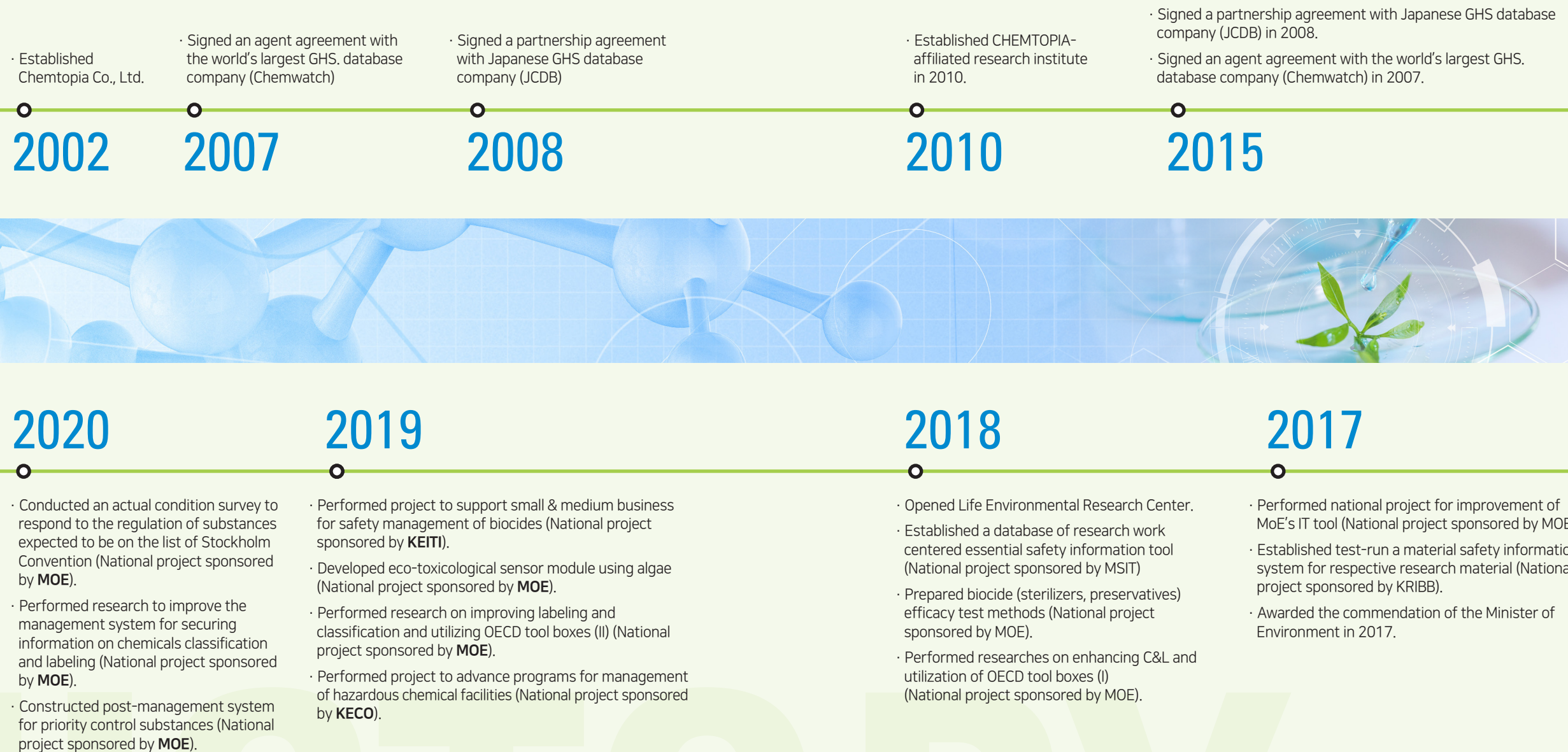
The best expert group

\* MSDS: MATERIAL SAFETY DATA SHEET  
\* DB: DATABASE

## ORGANIZATION CHART



# HISTORY



\* A LIST OF COMPETENT AUTHORITY :  
 - **MOE** (MINISTRY OF ENVIRONMENT)  
 - **MSIT** (MINISTRY OF SCIENCE AND ICT)  
 - **KEITI** (KOREA ENVIRONMENTAL INDUSTRY & TECHNOLOGY INSTITUTE)  
 - **KECO** (KOREA ENVIRONMENT CORPORATION)

## MAIN BUSINESS

### K-REACH CONSULTING

- Only representative service
- Chemical inventory work
- Consortium management and data sharing
- Data gap analysis and data review
- Read-across and QSAR approach
- Establishment of test strategy
- Test arrangement with GLP laboratories within and outside of Korea
- Support manufacture and import report
- Support registration process
- Preparation of Korea risk assessment report (CSR)
- Authorization application
- Korea GHS based MSDS authoring

### GLOBAL NOTIFICATION OF NEW CHEMICALS

- Education and Seminar for global notification
- Establish strategy for global notification and exemption
- Inventory and control of chemicals
- Data review
- Data sharing and consortium management
- Risk Assessment and PBT modeling
- Read-across and QSAR analysis
- TD(Technical Dossier) and CSR(Chemical Safety Report) preparation
- Only Representative(OR) service
- Data management after notification
- EFSA and FDA registration
- CLP(Classification, Labelling and Packing) consulting
- Authoring compliant SDS and labels according to different jurisdictions.
- Updating chemical regulations worldwide.

### K-BPR CONSULTING

- Approval of biocidal substance
- Authorization of biocidal product
- Establishment and scheduling of approval and authorization strategies
- Data establishment and preparation for approval and authorization
- Establishment of substance equivalence data
- Establishment of product similarity data
- Operation of joint submission consortium for substance approval data
- Arrangement of required testing laboratory
- Preparation of comprehensive data on safety (comprehensive assessment)
- Response to clients' request for regulatory compliance
- Review of product labeling
- OR (Only Representative) service

### PRODUCT CONSULTING

- Household chemical products subject to safety confirmation
- Safety and labeling requirements of biocide-treated products
- Reporting imported and manufactured household chemicals and biocides
- Report of priority control substances contained in consumer products
- Compliance of hygiene product regulation
- Compliance of cosmetics regulation
- Compliance of quasi-drugs

BUSINESS

## BUSINESS CONSULTING

### K-REACH Consulting

For existing chemicals having its volume 1 ton and above and all new chemicals regardless its volume require registration before their manufacture and import. New chemical refers to chemicals that are not listed on Korean Existing Chemical list(KECL) established in 1991 by MOE and MOL.

Appointment of Only Representative(OR) is required on behalf of foreign manufacturers who intend to export their chemicals to Korea.

As Chemtopia has actively involved in several Korea REACH implementation projects led by competent authorities, we can offer a fully comprehensive regulatory service at the level of law maker to support client's chemical business in Korea.

### Korea REACH service

- Only representative service
- Chemical inventory work
- Consortium management and data sharing
- Data gap analysis and data review
- Read-across and QSAR approach
- Establishment of test strategy
- Test arrangement with GLP laboratories within and outside of Korea
- Support manufacture and import report
- Support registration process
- Preparation of Korea risk assessment report (CSR)
- Authorization application
- Korea GHS based MSDS authoring

## BUSINESS CONSULTING

### Global Notification of New Chemicals

Like EU REACH, countries like China, Japan, Philippines, Taiwan and others have their REACH-like regulation. We, Chemtopia support our customers for Global Notification especially for Asian region.

We ensure compliance with global chemical regulations based on our considerable experience of the notification and registration. As for EU REACH, Chemtopia has successfully filed more than 70 dossiers for high tonnage band substances within the 2010 deadline.

You don't need to contact or manage several consulting partners for notification and registration in each jurisdiction, because Chemtopia provides a comprehensive service covering various global chemical regulations.

### Global notification service

- Education and Seminar for global notification
- Establish strategy for global notification and exemption
- Inventory and control of chemicals
- Data review
- Data sharing and consortium management
- Risk Assessment and PBT modeling
- Read-across and QSAR analysis
- TD(Technical Dossier) and CSR(Chemical Safety Report) preparation
- Only Representative(OR) service
- Data management after notification
- EFSA and FDA registration
- CLP(Classification, Labelling and Packing) consulting
- Authoring compliant SDS and labels according to different jurisdictions.
- Updating chemical regulations worldwide.

## BUSINESS CONSULTING

### K-BPR Consulting

As 「The Safety Control Act of Household Chemical Products and Biocides」 was enforced as of January 1st, 2019, biocidal substances and products cannot be in circulation at the market without approval or authorization according to the law. Chemtopia provides consulting services on approval or authorization of biocides for active substance and products, labeling obligation of biocidal products, and other relevant obligations.

#### Korea BPR service

- Approval of biocidal substance
- Authorization of biocidal product
- Establishment and scheduling of approval and authorization strategies
- Data establishment and preparation for approval and authorization
- Establishment of substance equivalence data
- Establishment of product similarity data
- Operation of joint submission consortium for substance approval data
- Arrangement of required testing laboratory
- Preparation of comprehensive data on safety (comprehensive assessment)
- Response to clients' request for regulatory compliance
- Review of product labeling
- OR (Only Representative) service

## BUSINESS CONSULTING

### Product Consulting

Chemtopia supports regulatory compliance of businesses and industries for chemicals and chemical products regulated by Ministry of Environment and Ministry of Food and Drug Safety in order to prevent the omission of regulatory compliance at all steps from raw materials to final products containing chemical ingredients.

#### Product consulting service

- Household chemical products subject to safety confirmation
- Safety and labeling requirements of biocide-treated products
- Reporting imported and manufactured household chemicals and biocides
- Report of priority control substances contained in consumer products
- Compliance of hygiene product regulation
- Compliance of cosmetics regulation
- Compliance of quasi-drugs



## BUSINESS CONSULTING

### Risk assessment

Risk assessment of chemical substance is a method to evaluate the impact on human health and environment of chemical in the use and the manufacture for each use. Risk assessment is evaluated by 'the degree of risk' and it is classified with the evaluation of hazard, exposure, and determination of risk.

This advanced method can evaluate not only the toxicity of chemical itself but also the exposure possibility toward human and environment. The purpose of risk assessment is the efficient management of chemicals and risk communication between industries with common interest.

Authority	Risk Assessment Consulting
MOE	<ul style="list-style-type: none"> <li>Initial risk assessment from chemical release</li> <li>Risk assessment within facility</li> <li>Product risk assessment</li> </ul>
MOEL	<ul style="list-style-type: none"> <li>Risk assessment within facility</li> </ul>
Other service	<ul style="list-style-type: none"> <li>Physical/chemical/toxicity DB search</li> </ul>

### Environmental Risk Assessment

- Risk assessment by assessment tool such as EUSES and Korean multi-media fate model
- Development of exposure scenarios of chemical substances according to usage and usage type
- Chemical hazard management and measures to reduce exposure level based on the results of risk assessment

### Consumer (product) Risk Assessment

- Maintenance and management consulting for human hazard assessment
- Consumer product risk assessment by exposure assessment tools such as ECETOC-TRA and Cons Expo
- Evaluation of public (general people) risk with exposure assessment tools
- Product management based on consumer (product) risk assessment results

### Workers Risk Assessment

- Hazard assessment for workers
- Exposure assessment for workers

## BUSINESS CONSULTING

### QSAR

QSAR (Quantitative Structure Activity Relationship) is an in-silico method to predict the values from the quantitative correlation between chemical structure and physic-chemical properties, based on the knowledge that a similar chemical structure has a similar chemical characteristic. US and EU are very conservative to performing the animal test for chemical substances to protect animal welfare. In addition, cost and time for toxicity test is very heavy burden to industry; therefore, QSAR approach is very active in such areas specially for pre-screening stage of physical properties and toxicity in the process of new chemical development. For EPA, this technique and its knowledge have been accumulated well and widespread. In EU, REACH (Registration, Evaluation, Authorization of Chemicals) started in June, 2007, has accepted QSAR data for writing the physic-chemical properties and toxicity information.

In K-REACH, QSAR approach is accepted by authority for the chemicals with submission of similar structural chemical data.

Chemtopia provides various QSAR data in form of report for domestic and overseas countries to predict below end points so that it helps saving the toxicity cost and time for industry:

### Physical and chemical properties

- Melting point, boiling point, flammability, vapor pressure, octanol/water partition coeff., water solubility, dissociation constant, etc.

### Human health effect

- Acute oral toxicity, eyes corrosion/irritation test, skin sensitization, repeated dose toxicity, carcinogenicity study, etc.

### Ecotoxicity

- Acute fish toxicity, chronic fish toxicity, bioconcentration, etc.

## BUSINESS CONSULTING

### GHS MSDS and label service

Globally Harmonized System of Classification and Labeling of Chemicals (GHS) addresses classification of chemicals by types of hazard and proposes harmonized hazard communication elements, including labels and safety data sheets. The GHS aims to ensure that information on physical hazards and toxicity from chemical is available to enhance the protection of human health and environment during handling, transport, and use of chemicals.

Korea implemented GHS in 2008. All MSDS and label of chemical products in Korea should be transferred and compliant to relevant GHS version of July 1st 2013. Other Asian countries including Japan, Taiwan, Malaysia, Singapore etc., are already adopted GHS or preparing GHS.

Especially the Korea MSDS format required by the Ministry of Labor (MOEL) is different from UN version and EU CLP. Chemtopia's MSDS authoring system provides outsourced assistance from Chemtopia's highly qualified MSDS experts who have performed various national projects sponsored by MoE and MoEL to adapt and update UN GHS system to Korea.

### Chemtopia's service

- GHS MSDS
- GHS MSDS in multiple languages (Japanese, Chinese, Turkey, Thailand etc.)
- GHS MSDS preparation with local regulation
- GHS Label preparation in multiple languages



## BUSINESS IT SOLUTION

### MSDS Authoring Program Dr. MSDS

UN GHS from countries differs, and national legislation information should be reflected on MSDS for corresponding countries while official language of exporting country is also required. Moreover, preparing logic for GHS MSDS is very complicated, and time and cost to be spent to prepare GHS MSDS could be tough.

Chemtopia's global GHS MSDS authoring system can cover over 200,000 substances and can provide each country's specific MSDS format. Over 30 multi-language are available so that MSDS can be prepared and managed fast and effectively.

### Features

- MSDS authoring of single substance and mixtures
- MSDS authoring in accordance with 16 section format of MOEL notification
- Classification in accordance with CCA by MOE in case of toxic substances
- Present physico-chemical characteristic, toxicity information and transportation information
- 16 Section would be possible to be prepared by MSDS authoring system with applying internal processing rules
- Frequent and constant update of legal regulations
- Extracting as excel and HTML file and user's editing are available
- MSDS management function by department
- Customizing MSDS is available by generating company logo and label
- No need to construct a separate server or hardware by using web-based system
- Linkage with internal ERP system is available

## BUSINESS IT SOLUTION

### Web based Chemical Management System Dr. CMS

Chemtopia's chemical management system (Dr. CMS) supports chemical related regulations for Korean importers and local businesses. As for foreign manufacturers, they can double check the compliance details of chemical regulation in Korean importers and local businesses using the chemical management system.

Chemtopia's chemical management system supports systematic chemical management in connection with ERP system. Also web-based chemical management system is available.

## Chemtopia's service

- Web-based or corporate ERP system
- Chemical management system for domestic and exporter
- Support management of volume for reporting, registration, and product notification for K-REACH
- Checking and managing chemical regulation on chemicals and materials
- MSDS authoring and management for customers
- Supply chain management for customer and vendor management
- Hazardous material and storage management

## BUSINESS IT SOLUTION

### Web based Regulatory database for Asian region Dr. ChemDB

Chemtopia provides the clients a powerful hazard and regulatory database: Dr. Chem DB supports the clients to comply with such regulations as Industrial Health and Safety Act from the Ministry of Labor, K-REACH from the Ministry of Environment, Safety Management of Dangerous Goods from the Ministry of Public Administration and Security, etc. To meet regulatory compliance required by your importer, it is important to ensure your chemical product's regulatory status in advance.

## Features

- As it is web based system, there is no need to update database
- Powerful hazard and regulatory information covering over 200,000 substances
- National inventory of Asian countries and more
- Regulatory lists for KOREA REACH
- Regulatory lists for industrial chemical, cosmetics and food contact material, and more in China, Japan, Taiwan etc.
- Annual subscription model with reasonable cost incorporated with chemical management system (Dr.CMS)
- In-house ERP implementation is available

## BUSINESS LIFE ENVIRONMENTAL RESEARCH CENTER

Since its establishment in 2010, Life Environmental Research Center of Chemtopia has been at the forefront of establishing proper environmental conservation measures through long-term monitoring, accurate analysis, and research on the environment based on the harmonious co-existence of human beings and natural environment for sustainable development.

As the recent tightening of international environmental regulations has required expertise to encompass chemicals, regulations and environment, our life environmental research center has collaborated with internal and external chemical regulatory experts on environmental hazard assessments.

With the implementation of the domestic ecological toxicity management system in 2011, regulations on the discharge of hazardous substances in the water quality have been strengthened, and the need for an integrated water quality control system and a bio-alarm system for harmful chemicals has increased. Based on its rich experience in water-based toxicity assessment, our center carries out environmental monitoring projects and development of ecological toxicity monitoring equipment, including national projects sponsored by competent authorities.

### Research & Development service

- Water quality environmental analysis in fresh water and ocean
- Construction of eco-toxicity system
- Environmental impact assessment
- Ecosystem Investigation
- Development of Environmental Monitoring Instrument
- Retention of testing facilities and analytical instruments

