

Chapter 5

Roadmap of the ASEAN Chemical Safety Database

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CHAPTER 5

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1. Objective of the ASEAN Chemical Safety Database

The primary objectives to be fulfilled by the ASEAN Chemical Safety Database are the following 4 items, as shown in Chapter **Error! Reference source not found.**:

- 1. To share information on risk and hazard*
- 2. To enhance transparency and reduce compliance risk through providing information on local regulations*
- 3. To facilitate regulatory convergence among ASEAN and Partner Countries*
- 4. To reduce the costs of duplicative testing and the burden of assessment*

The first objective represents the original motivation for establishing the ASEAN Chemical Safety Database, and thus must receive high priority. This objective aims to promote information-sharing among member countries, in order to avoid the overlapping of testing in each country, and shared information will be used for risk assessment and risk management purposes.

The second objective prescribes that the ASEAN Chemical Safety Database will be utilized as a medium providing information to ensure the transparency of the chemical regulation in each country, and to reduce compliance risk in the industry.

Note that the intent of the first and second objectives is to ensure that the information gathered is to be utilized in an open manner to the public, rather than in a closed environment, thereby contributing to the SAICM objectives, including “knowledge and information.”

The third objective covers that the database is established as a valuable tool to manage high-risk chemical substances in a consistent manner, and also to provide an opportunity to review the scope of regulations in each country, such as a rationalization of regulation and establishing new regulations. These functions will be realized by, for example, employing schemes where controlled substances and GHS classification results in each country can be displayed in a manner that allows direct comparison.

Lastly, the fourth objective has a direct impact both on government and an industry. It will be possible to avoid duplicative testing by sharing test results. Assessment results from other countries will significantly reduce the burden of conducting risk assessments, not only for governments, but also for industries.

To achieve those objectives, the following information items are being considered to be included as functions of the database. Although the timing of information collection for each item depends on the scale of tasks required for its implementation, all the items listed below are expected to be covered in the near future, and will be searchable by versatile search keys such as CAS number as a result of the preliminary information collection. The following updates, such as the revision of related regulations, are expected to be done by each country.

1. *Instruction on the usage of ASEAN Chemical Safety Database*
2. *General information*
 - ✓ *Chemical identity (general name, CAS number, chemical structure), use information, etc.)*
3. *Information on regulation*
 - ✓ *Regulatory information (preventative information)*
4. *Risk assessment information*
 - ✓ *Result of risk assessment*

5. *Exposure information*
 - ✓ *PRTR information (exposure to the environment)*
 - ✓ *Production amounts (if available)*
6. *Information on hazards*
 - ✓ *Physical hazard, human health, and environmental hazard*
7. *GHS classification results*
 - ✓ *Verification status*
 - ✓ *Pictogram, Signal word, hazard statement and precautionary information*
8. *SDS repository (with a note of “not final”)*

2. Rough Roadmap for the ASEAN Chemical Safety Database

Table 1 summarizes a rough roadmap for establishing the ASEAN Chemical Safety Database.

Although detailed discussion of primary objectives, information items, etc. in terms of the database was carried out, political agreements on constructing the database have not yet been made at a high level. Therefore, the years themselves are not specified on the drafted roadmap. Instead, expressions such as Y1, Y2,... were used to describe the year range for the roadmap of the database. This means that the construction of the database will start in the year that the political agreement is made (e.g., if agreement is made in 2012, Y1=2012).

It should be noted that the following roadmaps simply summarize the rough paths and tasks to be carried out and the approximate time periods; it should not be considered either final or conclusive. For example, the following points still have room for further

considerations: 1) languages employed in the database and financial support for
realization: 2) research conduction for improving the operation of database.

Table 1: Rough Roadmap for the ASEAN Chemical Safety Database

		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Items to be determined	Definition of the scope of service										
	Governing structure										
	Decision-making group										
	Operator and its location (to build a new entity/use existing)										
	Funding scheme / Human resource arrangement										
	Connection to other databases										
Benchmarks for the development of ASEAN Chemical Safety Database	Setting outline of the established database system										
	Planning for systemization										
	System development										
	Data feeding										
	Trial operation										
	Operation										
Cooperation from member countries	Provision of restricted chemicals lists in CAS No. base										
	Provision of hazard data (incl. GHS classification) / SDS sample										

	Contribution to the development and maintenance of the Database											
	Providing experts for direction setting											
	Providing human resource for development and maintenance											
	Monetary support											
Listed items in database	General information											
	Regulatory information / regulated chemicals											
	Risk Assessment Information											
	Exposure information											
	Information on hazards											
	GHS classification result											
	SDS repository											

In the following, each item described in Table 1 is explained in detail.

Items to be determined

This section lists issues that must be determined before developing the ASEAN Chemical Safety Database. When examining how to realize the ASEAN Chemical Safety Database, it is necessary to determine a clear outline and the scope of services of the Database, as explained in Chapter 3 of this report.

Moreover, in order to make proper decisions, it is necessary to clearly designate decision-making bodies related to the ASEAN Chemical Safety Database, and, for this purpose, it is necessary that an agreement on the decision-making bodies is reached, and decisions by the bodies are made as part of the governing structure. Furthermore, it is necessary to bring into perspective who will actually work as operators in practical businesses when progressing with the development. It is thus necessary to coordinate who will assume the role of operators, based on the decisions made by the decision-making bodies above.

Moreover, for the operation of the Database to be sustainable, rather than temporary, it is also necessary to resolve various financial and personnel-related resource issues. For this reason, the member countries shall also reach some level of agreement regarding contributors to funding, method of contribution, method of procuring human resources etc..

Lastly, as explained in Chapter 3, the implementation of functions to connect the databases of the ASEAN Chemical Safety Database to databases owned by the member countries, so data stored in them can also be displayed, has been considered. Reviewing the feasibility of the functions from a technical perspective and specific schemes will also be required in the future.

Benchmarks for the development of ASEAN Chemical Safety Database

These rows contain points of particular importance that can become benchmarks when constructing the ASEAN Chemical Safety Database, assuming the aforementioned items to be determined beforehand have been properly determined. The first benchmark is establishing an outline of the established database system, as

explained at the beginning of the previous subsection. By establishing the outline, it becomes possible to share and clarify objectives and information items to be implemented in the ASEAN Chemical Safety Database, and the Database will also be able to disseminate such information externally.

The second benchmark concerns planning for systemization, enabling the project to progress from conceptual to specific system designs. At this phase, detailed planning will have been completed, such as what search keys are required in the ASEAN Chemical Safety Database, and how the data should be structured; this planning will then be used in the next phase of specific system designs.

The third benchmark will be at the point where the system development of the ASEAN Chemical Safety Database is completed. At this point, since the skeleton of the databases will already have been completed, only the details need to be reviewed.

The fourth benchmark will be when it is time to start feeding data to be stored into the ASEAN Chemical Safety Database. In practice, this task will be conducted in parallel with the system development above. By this point, both the underlying framework and main contents will be completed.

The fifth benchmark will be trial operation/operation. In this phase, a test operation is performed, based on the underlying framework and contents of the system completed so far, and bugs generated while rotating PDCA will be corrected. From this point onward, the ASEAN Chemical Safety Database will be made accessible by general users as well.

Cooperation from member countries

In order to realize this roadmap, participating countries should take appropriate action. The first step is a kind of commitment to the roadmap. It may cover financial or in-kind contribution to the database and its management body. A committee consisting of appropriate representatives from participating countries will be the decision-making body of both the developmental phase and the operation phase.

Feeding and updating information to the database will be a key role expected of the different countries involved. Specifically, provision of restricted chemical lists in CAS No. bases within the countries will enable the creation of a CAS number-based

inventory of controlled substances, which will contribute to enhancing the compliance of industry through easier access to regulatory information and convergence of regulations, thus contributing to economic integration. Since the data must be provided well ahead of starting the data feed to the ASEAN Chemical Safety Database, the target date is set to within Y3 for the time being. Other items, such as GHS classification results, SDS samples, exposure information and risk assessment results, will be gathered in parallel.

Human resources and/or financial support are crucial for realizing and maintaining the database. From this point of view, a high-level commitment must be made within an appropriate forum, such as a minister level meeting of ASEAN countries.