



BUILD ELECTRONICS BETTER

CHEMICAL AND PRODUCT REGULATIONS AFFECTING ELECTRONICS:

THAILAND



IPC 2021 White Paper

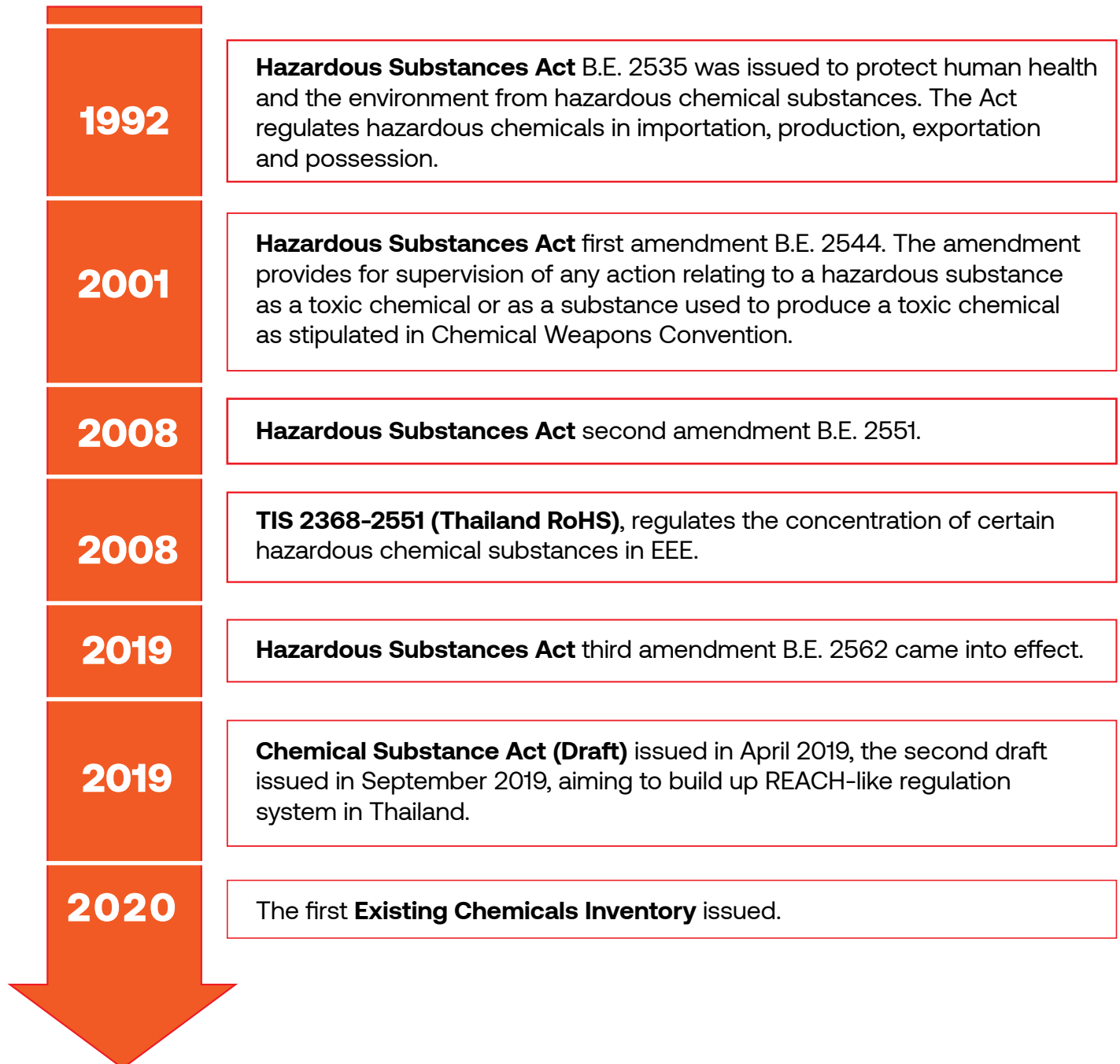
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1. INTRODUCTION

To lower the health and environmental impact from chemicals, countries and regions around the globe have published various chemical regulations for chemical management. Thailand established the Hazardous Substances Act in 1992 and has been making amendments to the Act with a focus on hazard management. However, Thailand is gradually shifting the focus to risk management and is planning to establish their own REACH-like regulations which could have significant impact on importers and manufacturers of chemical products and electrical and electronic equipment (EEE).

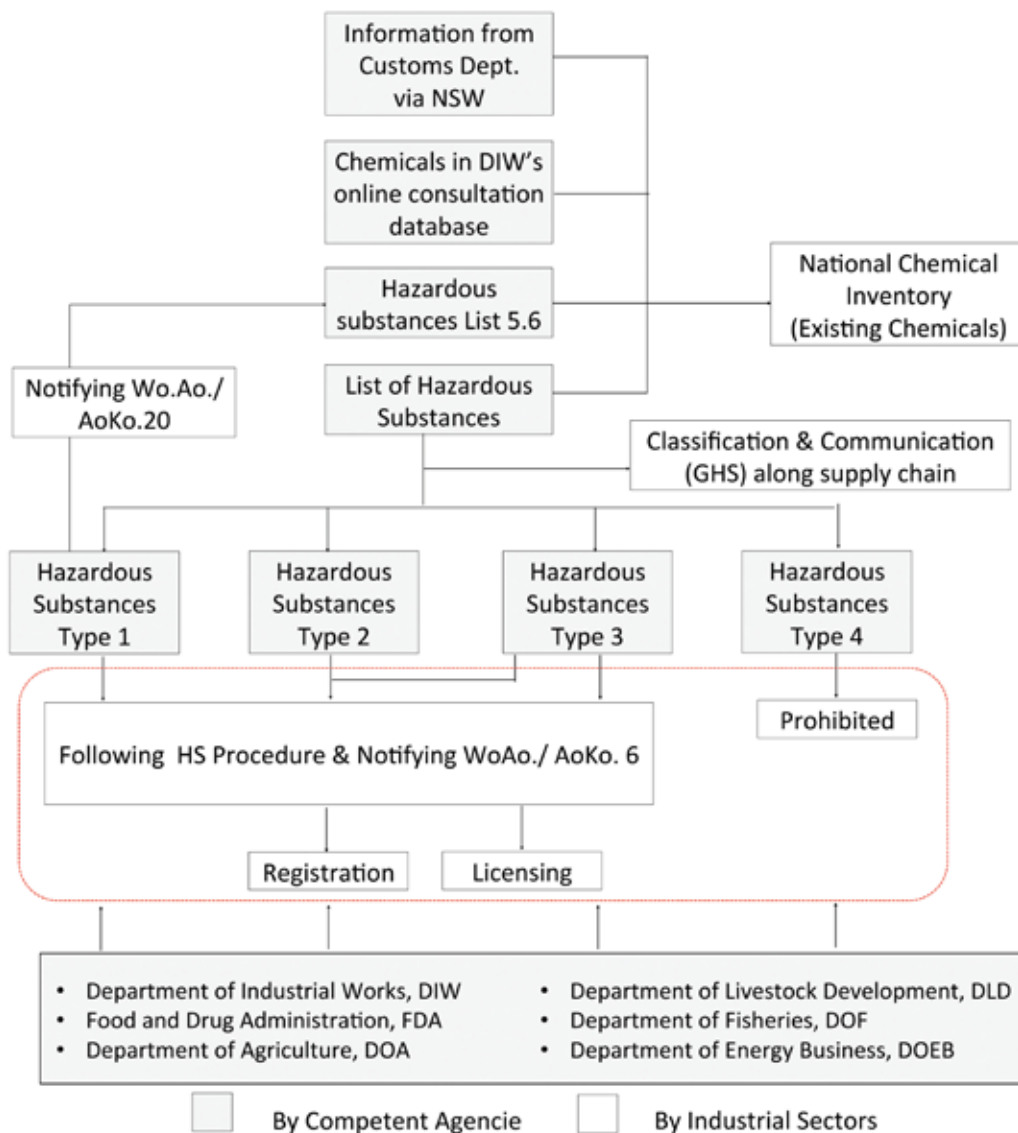
2. HISTORY OF CHEMICAL REGULATION DEVELOPMENT



3. CURRENT CHEMICAL REGULATORY SYSTEMS

3.1 REACH-like Regulations: Hazardous Substances Act

[Thailand Hazardous Substances Act B.E. 2535](#) was issued in 1992, regulating the importation/exportation, production and possession of hazardous chemicals to protect human health and the environment. It is the most important chemical control law in Thailand. The Act divides hazardous chemical substances into six annexes by corresponding authorities and has notification, registration or license requirements based on risk levels. The flowchart of the current management of hazardous chemicals is shown below.



(https://www.knoellconsult.com/sites/default/files/P.%20Pukclai%2C%20E.%20Dederick_Understanding%20Thailand%27s%20Chemical%20Regulations%20and%20Current%20Status.pdf)

3.1.1 Hazardous Substances List

Defined hazardous chemical substances in [List of Hazardous Substances](#) are:

- explosives
- inflammable substances
- oxidizing agents and peroxide substances
- toxic substances
- infectious substances
- radioactive substances
- mutagens
- corrosive substances
- irritating substances
- other substances, whether chemical or else, which may be harmful to person, animal, plant, property or environment.

Annexes	Authorities	Chemicals
Annex 1	Department of Agriculture	Pesticide active ingredients
Annex 2	Department of Fisheries	Biocides
Annex 3	Department of Livestock Development	Veterinary drugs, animal related disinfectant
Annex 4	Food and Drug Administration	Chemicals used in household or public health activities
Annex 5	Department of Industrial Works	Controlled substances; chemical waste; used electrical and electronic appliance; chemical weapons etc.
Annex 6	Department of Energy Business	Natural and liquified petroleum gas

3.1.2 Requirements

Compliance is based on types of hazardous substances. Hazard types are determined by online consultation by importers.

Types	Classification	Obligation
Type 1	Low risk, requires monitoring	Compliance with rules by responsible ministry
Type 2	Requires monitoring and controlling	Registration, notification
Type 3	High risk, requires strict control	Registration, notification, license
Type 4	Vital risk, prohibited	Prohibited (can be used as lab standard)

3.2 RoHS-like Regulations: TIS 2368-2551

RoHS-like regulation in Thailand usually refers to Thailand Restrictions on the Use of Hazardous Substances, Standard TIS 2368-2551, 2008. The standard came into effect on 6 February 2009, restricting the use of certain hazardous chemical substances in EEE. Manufacturers and importers can apply for compliance verification to Thai Industrial Standard Institute (TISI) voluntarily.

4. RECENT REGULATORY UPDATES AND REGULATION TRENDS FOR THE FUTURE

4.1 Hazardous Substances Act Amendment

On 27 October 2019, the Hazardous Substances Act (HSA No. 4) amendment (B.E. 2562) came into effect. The major changes of this amendment include:

- Introduced terminologies: transit, reimport and reexport. The commodity must leave the country within five days after passing through custom inspection.
- Liability is established for damages caused by the commodity.
- The provisions aimed at exemption for unitizations of hazardous substances under the purposes of the study, analysis, research, and development are established, which will help reduce the undue burden and make the practice of the Act more efficient.

4.2 Draft of Chemical Substance Act

A new chemical regulation Chemical Substance Act has been drafted since April 2019, with the most recent [draft](#) released in January 2021. The draft covers the full life cycle of chemical substances, mixtures and articles: (re)import/(re)export, manufacturing, transit, use, sales, disposal and recycling.

One of the major changes in the draft compared to Hazardous Substances Act is that unlike the Hazardous Substances Act, which categorized chemicals into type 1-4, the draft classifies chemical substances in to three lists based on their risk level and combined with the upcoming Existing Chemicals Inventory. The lists are:

List 1 (Low risk): Enterprises shall comply with the standards in import/export, manufacturing, transit, sales, storage, disposal and recycling.

List 2 (High risk): Enterprises must obtain license/permission from the competent authority before conducting any activities with the chemicals.

List 3 (Prohibited): All activities are prohibited, but chemicals for Research and Development purposes or where contamination is unavoidable but not that dangerous can be exempted.

All chemicals will be required for registration under the draft. For any chemicals that are not listed in the Existing Chemicals Inventory, a request of chemical evaluation must be submitted before any activities can be conducted.

4.3 Existing Chemicals Inventory

The Thailand Department of Industrial Works (DIW) published the first Existing Chemicals Inventory in July 2020, consisting of 11,474 chemicals. Chemicals in the inventory are searchable through the [Online Existing Chemicals Inventory](#) by chemical name, Chemical Abstracts Service registry number, molecular formula or chemical code. The release of existing chemical inventory will be associated with the upcoming Chemical Substance Act.

With the establishment of the Existing Chemicals Inventory and the draft of Chemical Substance Act with new chemical and existing chemical management, Thailand is developing a REACH-like regulation system, and changing the focus of chemical management from hazard to risk management. The upcoming Chemical Substance Act will be of great importance to Thailand's chemical regulation development and is worth monitoring.



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