

**DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH
(MINISTRY OF HUMAN RESOURCE)**

**SUMMARY REPORT
HAZARDOUS CHEMICAL INVENTORY 2018**

PREPARED BY
CHEMICAL MANAGEMENT DIVISION
DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH MALAYSIA

1. Inventory Submissions 2018.

1.1 Number of Accounts

As of September 2019, a total 1155 accounts have been created covering all three types of accounts. The breakdown of accounts according to states and types of accounts are as follows:

Table 1: Breakdown of CIMS accounts according to states

State	Importer	Manufacturer	Importer and Manufacturer	Total	
				Number	(%)
Johor	50	43	62	155	13.4
Kedah	28	14	12	54	4.7
Kelantan	2	3	0	5	0.4
Melaka	23	16	9	48	4.2
Negeri Sembilan	19	16	19	54	4.7
Pahang	18	11	15	44	3.8
Perak	29	30	19	78	6.8
Perlis	2	2	0	4	0.3
Pulau Pinang	62	19	36	117	10.1
Sabah	13	10	17	40	3.5
Sarawak	22	30	20	72	6.2
Selangor	163	60	129	352	30.5
Terengganu	7	14	20	41	3.5
Wp KL	39	12	25	76	6.6
Wp Labuan	2	6	7	15	1.3
JUMLAH	479	286	390	1155	100.0

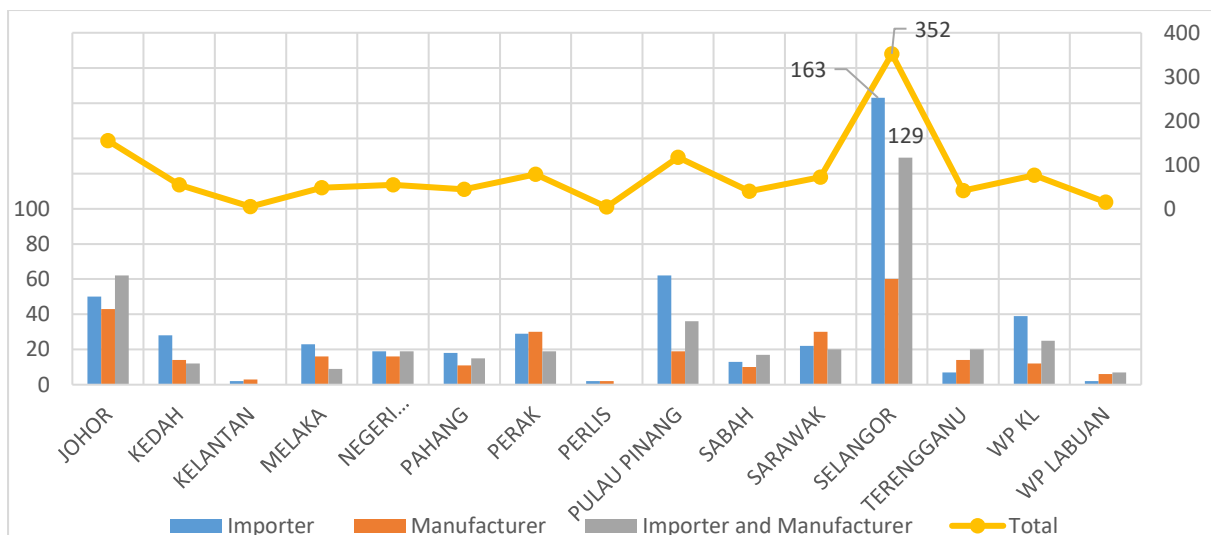


Figure 1 : Number of CIMS accounts according to states

1.2 Total of Submission and Number of Chemicals

A total of 4120 inventory submissions for 2018 were received by the Department through CIMS until 31st March 2019. Out of these submissions, only 3671 inventories were acknowledged and the rest were rejected. Normally, the submitted inventory is rejected by the Department due to the following conditions:

- i. incomplete inventory information (no quantity, hazard class etc.)
- ii. duplicate inventory report for the same chemicals.

Table 2: Number of submissions and chemicals acknowledged.

	Number of inventories	Number of chemicals
JUMLAH	3671	17900

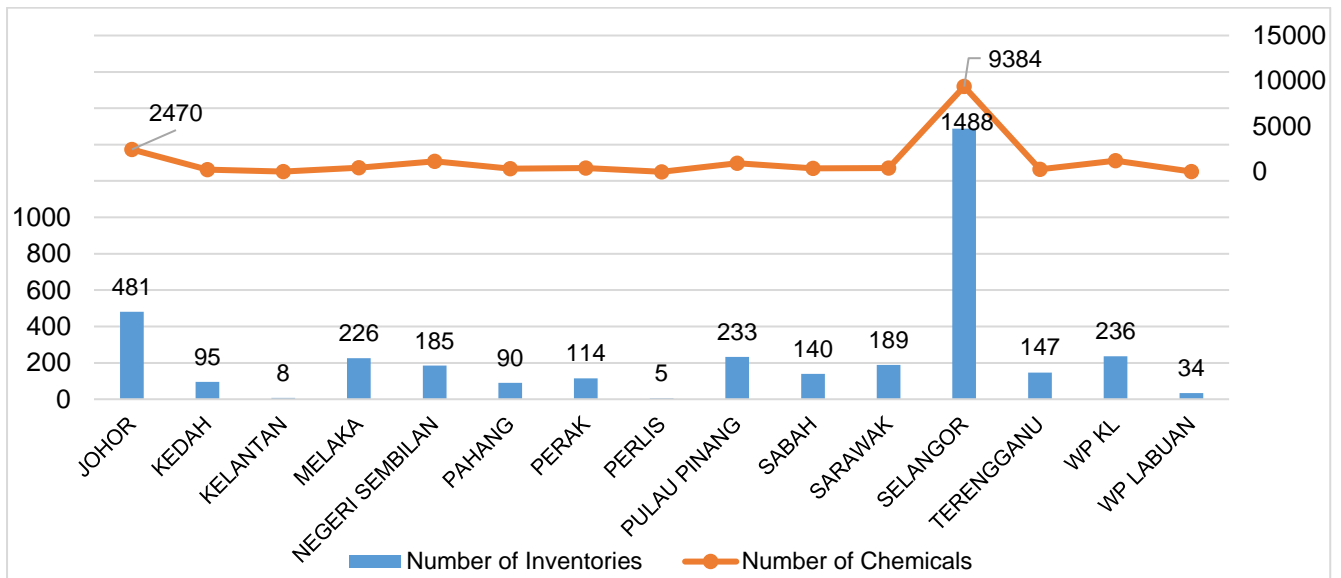


Figure 2: Number of inventory and chemicals acknowledged according to states..

1.3 Trend of Inventory Submission

The first submission for year 2018 inventory was received by the Department on the 1st January 2019. The number of inventory submissions increased day by day and the highest number of inventory submission was recorded towards last week of March.

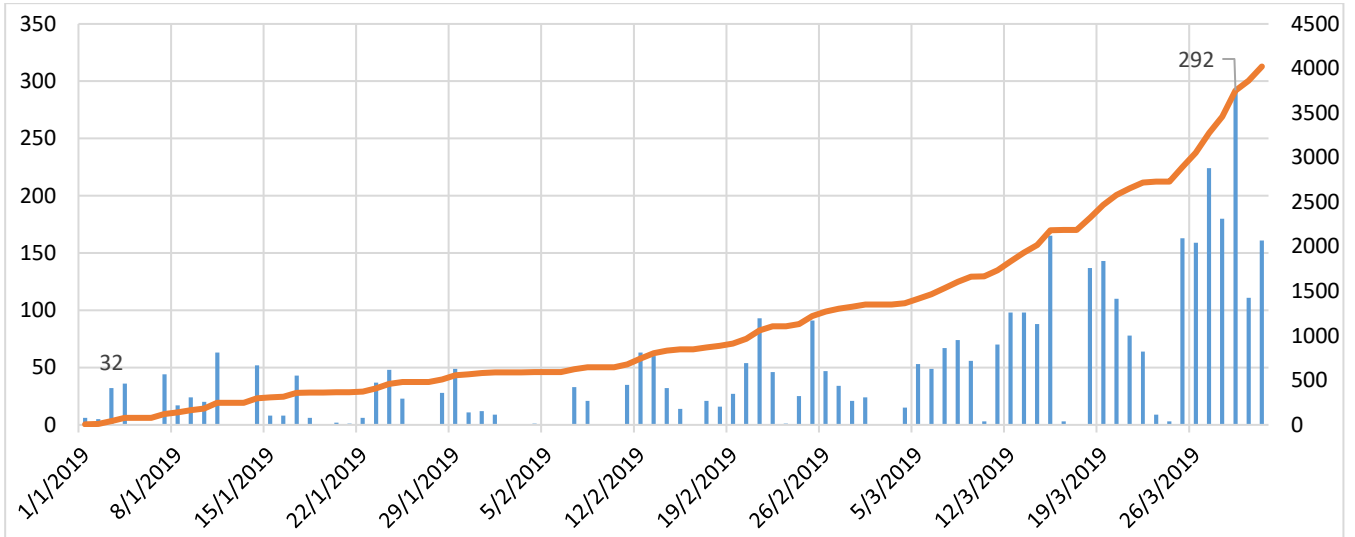


Figure 3: Trend of inventory submissions.

1.4 Total Quantity of Chemical in the 2018's Inventory

Table 3: Quantity of chemical according to types.

State	Substance (Tonne)		Mixture (Tonne)		Total	
	Import	Manufacture	Import	Manufacture	Tonne	(%)
TOTAL	20,444,432	59,051,789	17,480,554	505,534,341	602,511,116	100

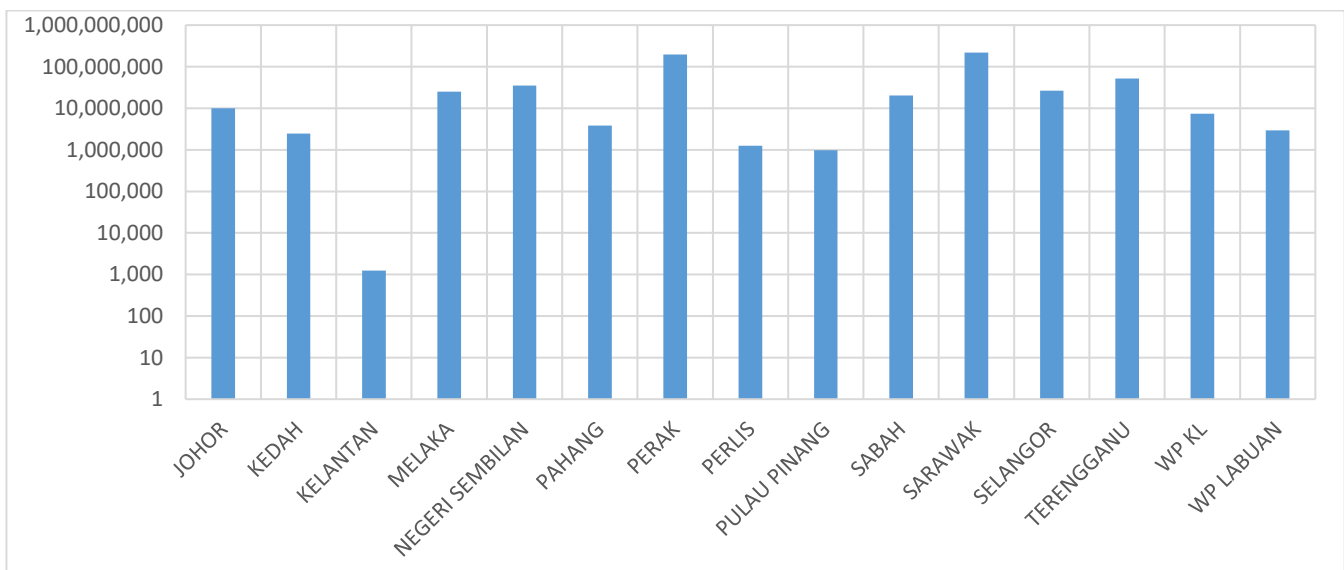


Figure 4: Quantity of chemicals imported/manufactured according to states.

2. Total Quantity of 2018's Inventory According to Hazard Class

2.1 Physical Hazard

Table 4: Total quantity of chemicals according to physical hazard classes.

	Quantity (Tonne)	≤ 100	≤ 1,000	≤ 100,000	≤ 1 Juta	≤ 100 Juta	>100juta
1.	Chemicals which, in contact with water, emit flammable gases				✓		
2.	Corrosive to metals				✓		
3.	Explosives			✓			
4.	Flammable aerosols			✓			
5.	Flammable gases						✓
6.	Flammable liquids					✓	
7.	Flammable solids				✓		
8.	Gases under pressure						✓
9.	Organic peroxides			✓			
10.	Oxidizing gases				✓		
11.	Oxidizing liquids			✓			
12.	Oxidizing solids				✓		
13.	Pyrophoric liquids		✓				
14.	Pyrophoric solids				✓		
15.	Self-heating chemicals		✓				
16.	Self-reactive chemicals			✓			

2.2 Health Hazard

Table 5: Total quantity of chemicals according to health hazard classes.

	Quantity (Tonne)	≤ 100	≤ 1,000	≤ 100,000	≤ 1 Juta	≤ 100 Juta	>100juta
1.	Acute toxicity dermal					✓	
2.	Acute toxicity inhalation					✓	
3.	Acute toxicity oral					✓	
4.	Aspiration hazard					✓	
5.	Carcinogenicity					✓	
6.	Germ cell mutagenicity					✓	
7.	Reproductive toxicity					✓	
8.	Respiratory sensitisation					✓	
9.	Serious eye damage/eye irritation						✓
10.	Skin corrosion/irritation					✓	
11.	Skin sensitisation						✓
12.	Specific target organ toxicity-repeated exposure					✓	
13.	Specific target organ toxicity-single exposure						✓

2.3 Environmental Hazard

Table 6: Total quantity of chemicals according to environmental hazard classes.

	Quantity (Tonne)	≤ 100	≤ 1,000	≤ 100,000	≤ 1 Juta	≤ 100 Juta	>100juta
1.	Hazardous to the aquatic environment-acute hazard					✓	
2.	Hazardous to the aquatic environment-chronic hazard						✓
3.	Hazardous to the ozone layer		✓				

3. Comparison of Inventory 2015 to 2018

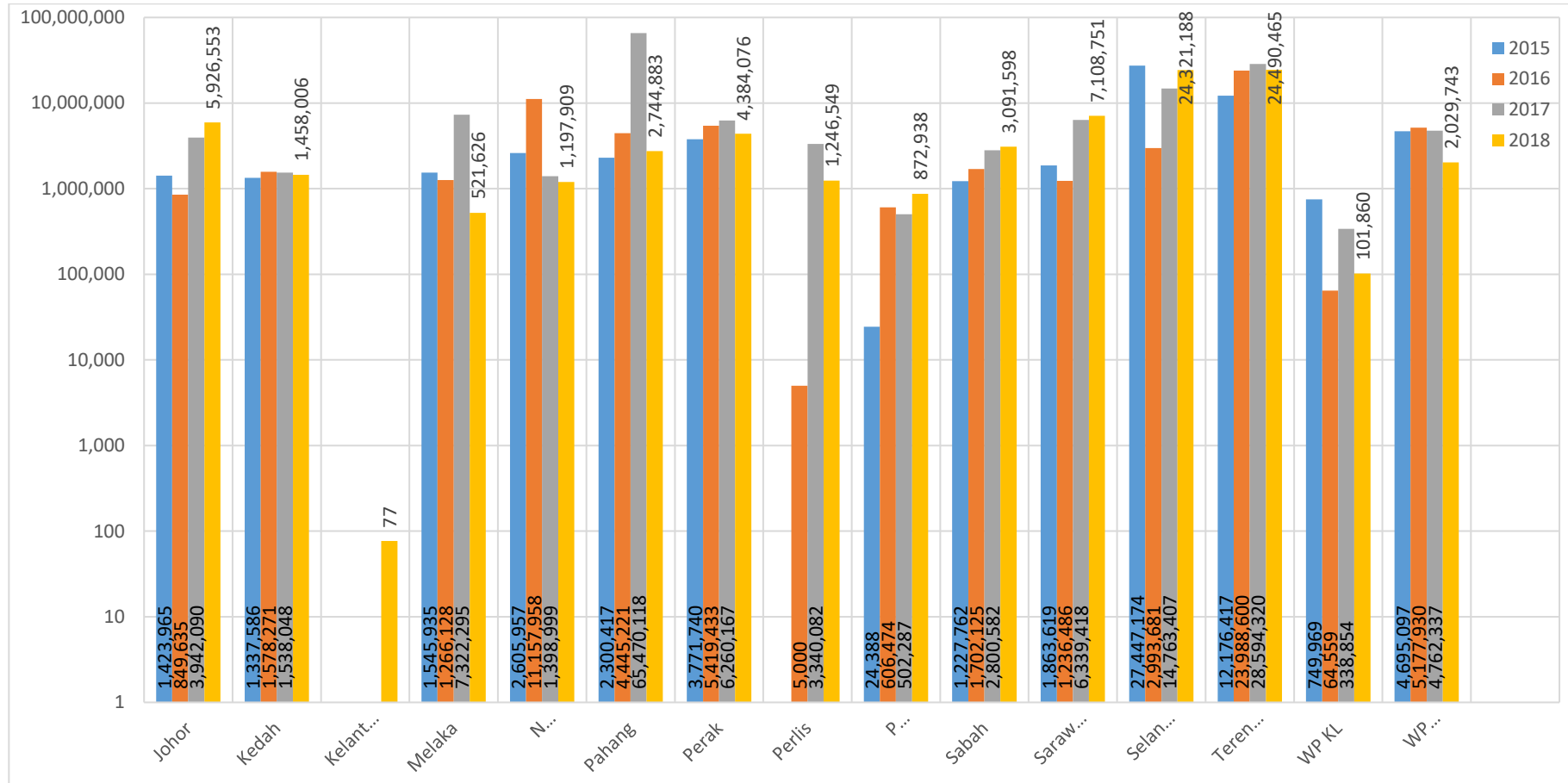


Figure 5: Total hazardous chemicals (substance) in 2015 to 2018 according to states (in tonnes)

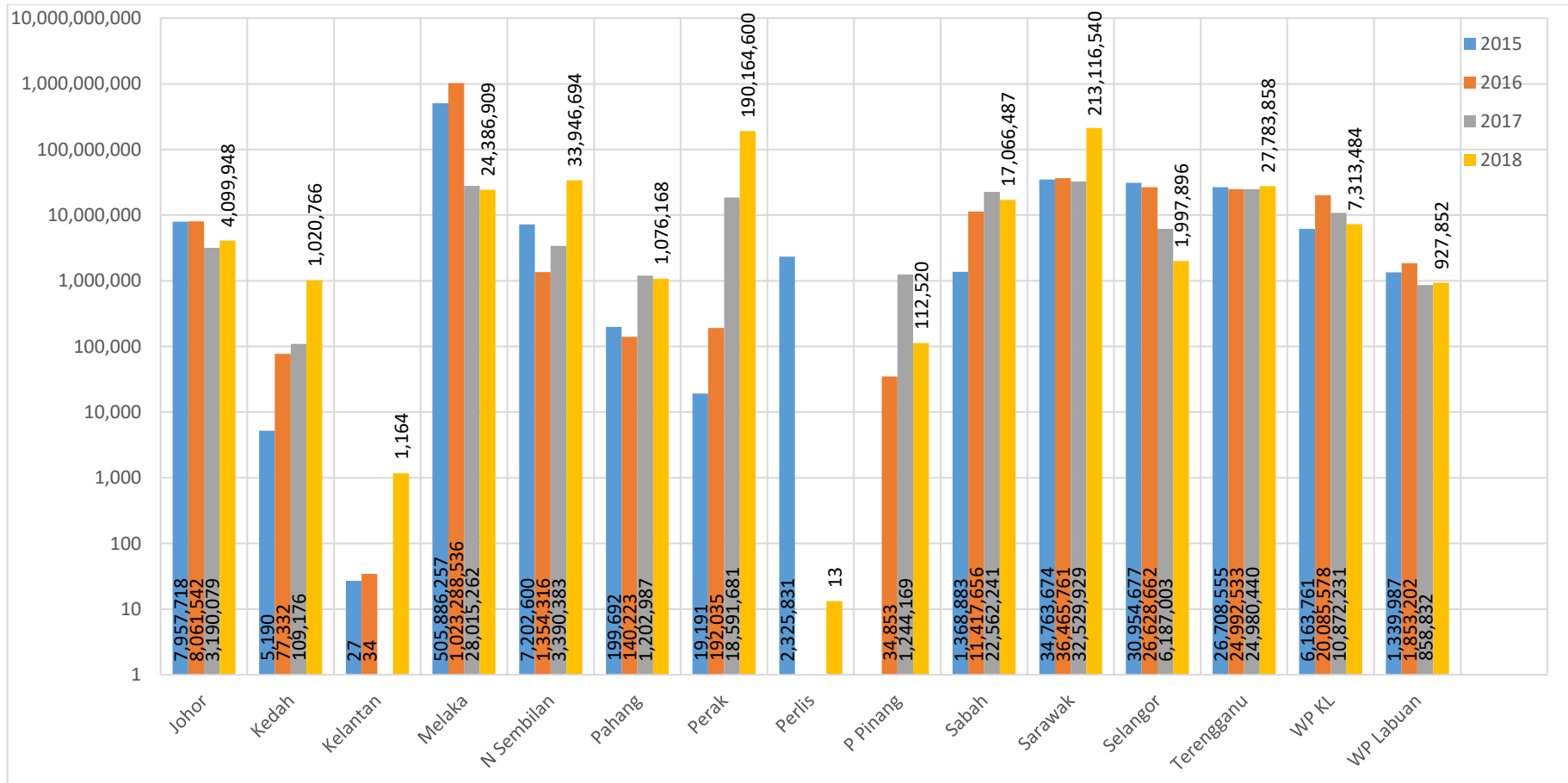


Figure 6: Total hazardous chemicals (mixtures) in 2015 to 2018 according to states (in tonnes)

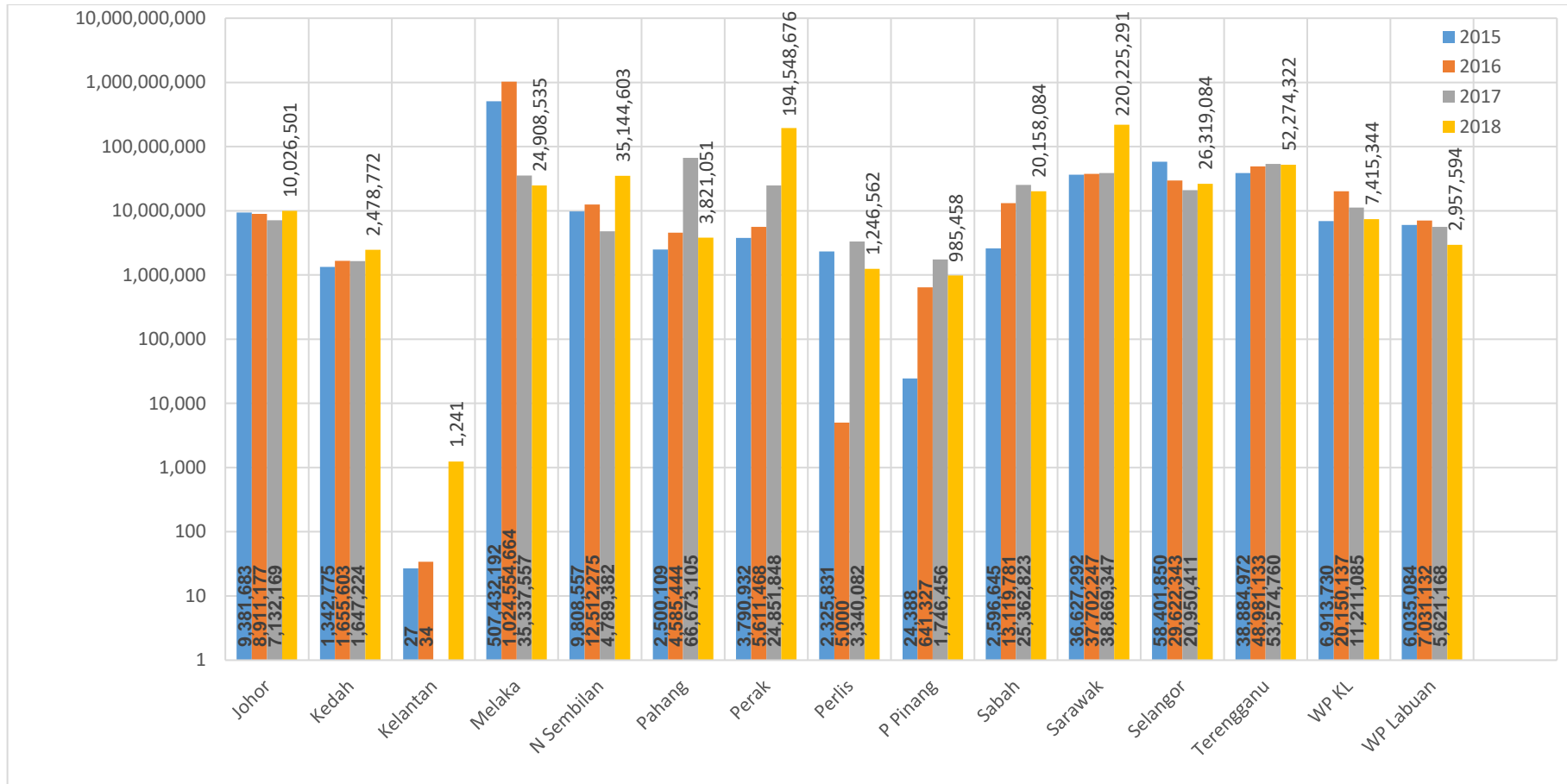


Figure 7: Total hazardous chemicals in 2015 to 2018 according to states (in tonnes)

4. Summary

In conclusion, data obtained from inventories submitted through CIMS indicate that the quantity of hazardous chemicals imported and manufactured to be supplied for use at the workplace is high and has the potential of bringing significant impact on the safety and health of workers and the public. Since the inventory submission received through CIMS came from all states in Malaysia, it indicates that hazards from chemicals exist all over Malaysia, and are not specific to states which are categorised as industrial states.

In line with that, suitable safety and health measures should be devised as to minimise the effect of hazardous chemicals on those involved. At the same time, the authorities should come up with drastic and practical measures including tightening the importation procedure in Malaysia.

The Department believes that the effort of controlling and managing hazardous chemicals is not an easy task that can be accomplished in the blink of an eye. Therefore, comprehensive measures involving multiple agencies need to be composed to face the challenges of chemical management in Malaysia. From a different angle, the gathering of information as implemented by CIMS will continue to be streamlined so that the statistics shown are more realistic and reflect the actual entry and production of chemicals in Malaysia.
