

**Notification of Ministry of Industry**  
**Subject: List of Hazardous Substances (No.7)**  
**B.E. 2565 (2022)**

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By the virtue of section 5 paragraph two and section 18 paragraph two of the Hazardous Substance Act B.E. 2535 (1992), the Minister of Industry, with the opinions of the Hazardous Substance Committee, hereby issues the ministerial notification as follows:

Article 1 Hazardous substances annexed to the Notification of Ministry of Industry regarding the List of Hazardous Substances B.E. 2556, dated 28<sup>th</sup> August B.E. 2556 (2013) as followings shall be revoked and replaced by the list of hazardous substances prescribed in the annex of this Notification.

1.1 List 4.1 of List 4 under the responsibility of the Food and Drug Administration, Controlled Substances: No. 18 crimidine, No.31 chlorophacinone, No. 39 coumatetralyl, No. 41 coumafuryl, No. 47 cholecalciferol, No. 51 zinc phosphide, No. 52 scilliroside, No.74 diphacinone, No.75 difenacoum, No. 94 norbormide, No. 109 barium carbonate, No. 110 brodifacoum, No. 111 bromadiolone, No. 137 fluoroacetamide, No.138 fluoroacetate sodium, No. 152 flocoumafen, No. 168 red squill, No. 173 warfarin, No. 189 alpha-chlorohydrin, No. 208 ergocalciferol and No. 209 ANTU or 1-naphthylthiourea;

1.2 List 4.2 of List 4 under the responsibility of the Food and Drug Administration, Group of Controlled Substances: No. 3 fluoroacetic acid and its salts;

1.3 List 4.3 of List 4 under the responsibility of the Food and Drug Administration, Controlled Products: No. 1 household used products in public health for the benefit of the gnawing elimination and No. 4 household used products in public health for the benefit of white washing, disinfection or eliminate odors in the swimming pool.

1.4 List 5.1 of List 5 under the responsibility of Department of Industrial Works, Controlled Substances: No. 202 triethanolamine and No. 247 benzyl cyanide

Article 2 Hazardous substances annexed to this Notification shall be added in the list of hazardous substances annexed to the Notification of Ministry of Industry regarding the List of Hazardous Substances B.E. 2556, dated 28<sup>th</sup> August B.E. 2556 (2013), latest amended by the Notification of Ministry of Industry regarding the List of Hazardous Substances (No. 6) B.E. 2563 (2020) dated 15<sup>th</sup> May B.E. 2563 (2020) as followings:

2.1 List 3.1 of List 3 under the responsibility of the Department of Livestock Development, Controlled Substances: No.24 chlorpyrifos;

2.2 List 5.1 of List 5 under the responsibility of Department of Industrial Works, Controlled Substances: No. 526 perfluorooctanoic acid, No. 527 ammonium perfluorooctanoate, No. 528 sodium perfluorooctanoate, No. 529 potassium perfluorooctanoate, No. 530 silver perfluorooctanoate, No. 531 perfluorooctanoyl fluoride, No. 532 methyl perfluorooctanoate, No. 533 ethyl perfluorooctanoate, No. 534 perfluorooctanoic acid, No. 535

ammonium perfluorooctanoate, No. 536 sodium perfluorooctanoate, No. 537 potassium perfluorooctanoate, No. 538 silver perfluorooctanoate, No. 539 perfluorooctanoyl fluoride, No. 540 methyl perfluorooctanoate and No. 541 ethyl perfluorooctanoate:

Article 3 Producers, importers, exporters or possessors of hazardous substance Type 3 in accordance with this Notification, whose operations have been performed before the enforcement date of this Notification, shall submit an application for permission for hazardous substance Type 3 within 30 days since the enforcement date of this Notification. And any hazardous substance is required to be registered, an application for registration shall be submitted within such period as well.

Producers, importers, exporters or possessors of hazardous substance Type 4 in accordance with this Notification whose operation have been performed before the enforcement date of this Notification shall comply with the order of the competent official within 180 days since the enforcement date of this Notification.

Article 4 This shall, thus, enter into force on the day following the date of its publication in the Government Gazette.

Announced on the 1<sup>st</sup> November B.E. 2565 (2022)  
Suriya Juangroongruangkit  
Minister of Industry

*(Published in the Government Gazette, Volume 139, special part 297Ngor, dated 21<sup>st</sup> December B.E. 2565 (2022))*

**List of Hazardous Substances**  
**Annexed to the Notification of Ministry of Industry on List of Hazardous Substances (No.7) B.E. 2565**

**List 3: Responsible by Department of Livestock Development**

List 3.1 Controlled Substances

No.	Name of Hazardous Substances	CAS Number	Type of Hazardous Substances	Condition
24	Chlorpyrifos	2921-88-2	4	In active substances or products containing active ingredients made for use in the prevention, eradication, destruction, control of insects or animals that are the enemy of animals.

**List of Hazardous Substances**  
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**List 4: Responsible by Food and Drug Administration**

List 4.1 Controlled Substances

No.	Name of Hazardous Substances	CAS Number	Type of Hazardous Substances	Condition
18	Crimidine	535-89-7	4	In household used products or public health for the benefit of the gnawing elimination
31	Chlorophacinone	3691-35-8	3	In household used products or public health for the benefit of the gnawing elimination
39	Coumatetralyl	5836-29-3	3	In household used products or public health for the benefit of the gnawing elimination
41	Coumafuryl	117-52-2	3	In household used products or public health for the benefit of the gnawing elimination
47	Cholecalciferol	67-97-0	2	In household used products or public health for the benefit of the gnawing elimination
51	Zinc phosphide	1314-84-7	4	In household used products or public health for the benefit of the gnawing elimination
52	Scilliroside	507-60-8	3	In household used products or public health for the benefit of the gnawing elimination
74	Diphacinone	82-66-6	3	In household used products or public health for the benefit of the gnawing elimination
75	Difenacoum	56073-07-5	3	In household used products or public health for the benefit of the gnawing elimination
94	Norbormide	991-42-4	3	In household used products or public health for the benefit of the gnawing elimination
109	Barium carbonate	513-77-9	3	In household used products or public health for the benefit of the gnawing elimination
110	Brodifacoum	56073-10-0	3	In household used products or public health for the benefit of the gnawing elimination

111	Bromadiolone	28772-56-7	3	In household used products or public health for the benefit of the gnawing elimination
137	Fluoroacetamide	640-19-7	4	In household used products or public health for the benefit of the gnawing elimination
138	Fluoroacetate sodium	62-74-8	4	In household used products or public health for the benefit of the gnawing elimination
152	Flocoumafen	90035-08-8	3	In household used products or public health for the benefit of the gnawing elimination
168	Red squill	507-60-8	3	In household used products or public health for the benefit of the gnawing elimination
173	Warfarin	81-81-2	3	In household used products or public health for the benefit of the gnawing elimination
189	Alpha-chlorohydrin	96-24-2	3	In household used products or public health for the benefit of the gnawing elimination
208	Ergocalciferol	50-14-6	3	In household used products or public health for the benefit of the gnawing elimination
209	ANTU or 1-naphthylthiourea	86-88-4	4	In household used products or public health for the benefit of the gnawing elimination

### List of Hazardous Substances

#### Annexed to the Notification of Ministry of Industry on List of Hazardous Substances (No.7) B.E. 2565

#### List 4: Responsible by Food and Drug Administration

##### List 4.2 Group of Controlled Substances

No.	Name of Hazardous Substances	CAS Number	Type of Hazardous Substances	Condition
3	Fluoroacetic acid and its salts	-	4	In household used products or public health for the benefit of the gnawing elimination

**List of Hazardous Substances**  
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**List 4: Responsible by Food and Drug Administration**

List 4.3 Controlled Products

No.	Name of Hazardous Substances	CAS Number	Type of Hazardous Substances	Condition
1	Household used products in public health for the benefit of the gnawing elimination	-	2	Except the product pursuant to one of the following 1. Products that contain essential oils from plants or animals. 2. Products that contain plant parts as the main ingredients which may be processed such as cutting, grinding, chopping, slicing 3. Products containing substances derived from plants or animals through the process of boiling, fermentation, distillation, extraction, burning or any other process without adding other substances intended to cause chemical reactions as key ingredients. However, products under 1, 2 and 3 must not contain synthetic chemicals as active substances.
2	Household used products in public health for the benefit of white washing, disinfection or eliminate odors in the swimming pool.	-	2	Except for bleaching products that contain substances important as enzymes. However, there must be no synthetic chemicals as the active substances.

**List of Hazardous Substances**  
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**List 5: Responsible by Department of Industrial Works**

List 5.1 Controlled Substances

No.	Name of Hazardous Substances	CAS Number	Type of Hazardous Substances	Condition
202	Triethanolamine	102-71-6	3	Controlled hazardous substances under List 3B (precursors) In an annex to the Convention on the Prohibition of Chemical Weapons Only at concentrations greater than 30% of weight (> 30% w/w).
247	Benzyl cyanide	140-29-4	3	
526	perfluorooctanoic acid (PFOA), its salts and perfluorooctanoic acid (PFOA)-related compounds including Perfluorooctanoic acid	335-67-1	3	Only being used for one of the following purposes 1. Being used in anti-reflection coatings in the photolithography process and etch processes in semiconductor manufacturing 2. Being used to coat photographs taken by film. 3. Being used to coat textiles to prevent from water and oil wetting and absorbing to protect workers from dangerous liquids and risk to health to ensure work safety. 4. Being used in foam-fire extinguishers for extinguishing liquid fuel vapors and liquid-fuel fire (Class B fires) with system already installed, including mobile and fixed one. 5. Being used in the production of polytetrafluoroethylene (PTFE) and polyvinylidene fluoride (PVDF) to manufacture
527	Ammonium perfluorooctanoate	3825-26-1		
528	Sodium perfluorooctanoate	335-95-5		
529	Potassium perfluorooctanoate	2395-00-8		
530	Silver perfluorooctanoate	335-93-3		
531	Perfluorooctanoyl fluoride	335-66-0		
532	Methyl perfluorooctanoate	376-27-2		
533	Ethyl perfluorooctanoate	3108-24-5		

				<p>equipment to reuse industrial heat waste or coating liquid to protect leakage of volatile organic compounds and PM2.5 particle.</p> <p>6. Being used in producing polyfluoroethylene propylene (FEP) for the manufacture of high-voltage cables and cables for transmitting electricity.</p> <p>7. Used in the production of fluoroelastomers for the production of O-rings, v-belts and automotive interior plastic parts.</p>
534	perfluorooctanoic acid (PFOA) and its salts including perfluorooctanoic acid	335-67-1	4	<p>Only those that do not meet the criteria for being a Type-3 hazardous substance, number 526-530 which are exempted for impurities as follows</p> <p>1. The concentration is not more than 0.0000025 percent by weight (<math>\leq 0.0000025\%</math> w/w) or</p> <p>2. Available in micro polytetrafluoroethylene (PTFE) powder manufactured by ionizing radiation or by thermal decomposition, concentration not more than 0.0001% by weight (<math>\leq 0.0001\%</math> w/w).</p>
535	ammonium perfluorooctanoate	3825-26-1		
536	sodium perfluorooctanoate	335-95-5		
537	potassium perfluorooctanoate	2395-00-8		
538	silver perfluorooctanoate	335-93-3		



List 5.1 Controlled Substances

No.	Name of Hazardous Substances	CAS Number	Type of Hazardous Substances	Condition
539	perfluorooctanoic acid (PFOA) - related compounds including perfluorooctanoyl fluoride	335-66-0	4	Only those that do not meet the criteria for being a Type-3 hazardous substance, number 531-533 will be exempted for impurity of perfluorooctanoic acid related compounds in single substance or all compounds, concentration not more than 0.0001% by weight ( $\leq 0.0001\%$ w/w).
540	methyl perfluorooctanoate	376-27-2		
541	ethyl perfluorooctanoate	3108-24-5		