

**Notification of Ministry of Industry**  
**Subject: List of hazardous substances (No.2)**  
**B.E. 2558 (2015)**  
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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 Committee on Hazardous substance, hereby issues the ministerial notification as follows:

Article 1        Hazardous substance, No. 69, namely Chlorophenol, stipulated in List 1.1: Controlled Substance of List 1 that is under the responsibility of Department of Agriculture, which has been annexed to the Notification of Ministry of Industry on list of hazardous substances B.E. 2556, dated 28<sup>th</sup> August B.E. 2556 (2013), shall be revoked.

Article 2        Following lists of hazardous substances annexed to the Notification of Ministry of Industry on list of hazardous substances B.E. 2556, dated 28<sup>th</sup> August B.E. 2556 (2013), shall be revoked and replaced with the list of hazardous substances annexed to this Notification.

2.1 No.195 Dicrotophos and No.639 EPN or O-ethyl O-4-nitrophenyl phenylphosphonothioate, prescribed in List 1.1 Controlled Substances of List 1, responsible by Department of Agriculture

2.2 No.1 Chlorophenol, prescribed in List 1.2 Group of Controlled Substances of List 1, responsible by Department of Agriculture

2.3 No.164 Methomyl and No.194 EPN or Ethyl p-nitrophenyl phenylphosphorothioate, prescribed in List 4.1 Controlled Substances of List 4, responsible by Food and Drug Administration

2.4 No.78 Chlorosoman: O-Pinacolyl methylphosphonochloridate, No.81 Chloropicrin: Trichloronitromethane, No.148 Sodium tetraborate pentahydrate, No.159 Cyanogen chloride, No. 242 BZ: 3-quinuclidinyl benzilate, No.296 Formaldehyde or Methanal, No.298 Phosgene or Carbonyl Chloride, No.306 Phenol, and No.484 Hydrogen Cyanide, prescribed in List 5.1 Controlled Substances of List 5, responsible by Department of Industrial Works

2.5 No.7: White Oil or Refined Petroleum Oil, prescribed in List 5.4: Others of List 5, responsible by Department of Industrial Works

2.6 No.6: {amiton: O, O-Diethyl S-[2-(diethylamino) ethyl] phosphorothiolate and corresponding alkylated or protonated salts}

Article 3        Following hazardous substances, which are listed in the annex of this Notification shall be added to List 5, responsible by Department of Industrial Works annexed to the Notification of Ministry of Industry on list of hazardous substances B.E. 2556, dated 28<sup>th</sup> August B.E. 2556 (2013):

3.1 List 5.1 Controlled Substances: No.487 Diphenylmethane-4,4'-diisocyanate (with mixed isomers) and No.488 Polymeric diphenylmethane diisocyanate

3.2 List 5.4 Other Substances: No.9 Isocyanate mixed isomers or mixture, and No.10 Resin

3.3 List 5.5 Chemical Weapons: No.13 Sulfur Mustards, No.14 Lewisites, and No.15 Nitrogen Mustards

Article 4 List 5.6 in the annex of this Notification shall be added to List 5, responsible by Department of Industrial Works annexed to the Notification of Ministry of Industry on list of hazardous substances B.E. 2556, dated 28th August B.E. 2556 (2013)

Article 5 Producer, importer, exporter or possessor of hazardous substance type 2 or type 3 stipulated in this Notification, whose operations are performed before the enforcement of this Notification, shall submit a notification of operation for hazardous substance type 2 or submit the application for operation permit for hazardous substance type 3 within 30 days since the enforcement date of this Notification. If registration is required for any hazardous substances, the application for registration shall be conducted within such period as well.

Producer, importer, exporter or possessor of hazardous substance type 4 according to this Notification whose operations are performed before the enforcement of this Notification shall comply with the order of the official within 30 days since the enforcement date of this Notification.

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

Announced on the 5<sup>th</sup> January B.E. 2558 (2015)  
Mr. Chakramon Pasukwanich  
Minister of Industry

(Published in the Government Gazette, Volume 132, special part 41Ngor, dated 19<sup>th</sup> February B.E. 2558 (2015))

**List of Hazardous Substance**  
**Annexed to the Notification of Ministry of Industry on List of Hazardous Substances (No.2) B.E. 2558**  
**List 1: Responsible by Department of Agriculture**

**List 1.1 Controlled Substances**

| No. | Name of Hazardous Substance                                                                                       | CAS Number | Type of Hazardous Substance | Condition                                                         |
|-----|-------------------------------------------------------------------------------------------------------------------|------------|-----------------------------|-------------------------------------------------------------------|
| 195 | Dicrotophos                                                                                                       | 141-66-2   | 4                           | Except the part on responsibility of Food and Drug Administration |
| 639 | EPN or O-ethyl O-4-nitrophenyl phenylphosphonothioate, or O-ethyl O- <i>p</i> -nitrophenyl phenylphosphorothioate | 2104-64-5  | 4                           | Except the part on responsibility of Food and Drug Administration |

**List 1.2 Group of Controlled Substances**

| No. | Name of Hazardous Substance | CAS Number | Type of Hazardous Substance | Condition |
|-----|-----------------------------|------------|-----------------------------|-----------|
| 1   | Chlorophenol                | -          | 4                           |           |

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

List 4.1 Controlled Substances

| No. | Name of Hazardous Substance                                                                                       | CAS Number | Type of Hazardous Substance | Condition                                                                                                                                           |
|-----|-------------------------------------------------------------------------------------------------------------------|------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 164 | Methomyl                                                                                                          | 16752-77-5 | 4                           | In products used in household or public health activity with purposes for inhibiting, preventing, controlling, destroying insects and other animals |
| 194 | EPN or O-ethyl O-4-nitrophenyl phenylphosphonothioate, or O-ethyl O- <i>p</i> -nitrophenyl phenylphosphorothioate | 2104-64-5  | 4                           | In products used in household or public health activity with purposes for inhibiting, preventing, controlling, destroying insects and other animals |

**List of Hazardous Substance**  
**Annexed to the Notification of Ministry of Industry on List of Hazardous Substances (No.2) B.E. 2558**  
**List 5: Responsible by Department of Industrial Works**

List 5.1 Controlled Substances

| No. | Name of Hazardous Substance                            | CAS Number               | Type of Hazardous Substance | Condition                                                                                                        |
|-----|--------------------------------------------------------|--------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------|
| 78  | Chlorosoman: O-pinacolyl methylphosphonochloridate     | 7040-57-5                | 4                           | Controlled hazardous substance according to list 1B (precursors) annexed to the Chemical Weapons Convention      |
| 81  | Chloropicrin: trichloronitromethane                    | 76-06-2                  | 4                           | Controlled hazardous substance according to list 3A (toxic chemicals) annexed to the Chemical Weapons Convention |
| 148 | Sodium tetraborate pentahydrate                        | 12179-04-3<br>11130-12-4 | 3                           |                                                                                                                  |
| 159 | Cyanogen chloride                                      | 506-77-4                 | 3                           | Controlled hazardous substance according to list 3A (toxic chemicals) annexed to the Chemical Weapons Convention |
| 242 | BZ: 3-quinuclidinyl benzilate                          | 6581-06-2                | 4                           | Controlled hazardous substance according to list 2A (toxic chemicals) annexed to the Chemical Weapons Convention |
| 296 | Formaldehyde or Methanal                               | 50-00-0                  | 2                           | Except when used as precursor in resin production and the part on responsibility of Department of Fisheries      |
| 298 | Phosgene or Carbonyl chloride                          | 75-44-5                  | 3                           | Controlled hazardous substance according to list 3A (toxic chemicals) annexed to the Chemical Weapons Convention |
| 306 | Phenol                                                 | 108-95-2                 | 2                           | Except when used as precursor in resin production                                                                |
| 484 | Hydrogen cyanide                                       | 74-90-8                  | 3                           | Controlled hazardous substance according to list 3A (toxic chemicals) annexed to the Chemical Weapons Convention |
| 487 | Diphenylmethane-4,4'-diisocyanate (with mixed isomers) | 26447-40-5               | 3                           |                                                                                                                  |
| 488 | Polymeric diphenylmethane diisocyanate                 | 9016-87-9                | 3                           |                                                                                                                  |

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

List 5.4 Others

| No. | Name of Hazardous Substance         | CAS Number | Type of Hazardous Substance | Condition                                                                                  |
|-----|-------------------------------------|------------|-----------------------------|--------------------------------------------------------------------------------------------|
| 7   | White oil or refined petroleum oil  | -          | 1                           | Except in the part on responsibility of Department of Agriculture                          |
| 9   | Isocyanate mixed isomers or mixture | -          | 3                           |                                                                                            |
| 10  | Resin                               | -          | 2                           | Only resin produced with phenol or formaldehyde precursor that have concentration > 2% w/w |

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**Annexed to the Notification of Ministry of Industry on List of Hazardous Substances (No.2) B.E. 2558**  
**List 5: Responsible by Department of Industrial Works**

List 5.5 Chemical Weapons

| No. | Name of Hazardous Substance                                                                                         | CAS Number | Type of Hazardous Substance | Condition                                                                                                        |
|-----|---------------------------------------------------------------------------------------------------------------------|------------|-----------------------------|------------------------------------------------------------------------------------------------------------------|
| 6   | { amiton: O, O-diethyl S-[2-(diethylamino) ethyl] phosphorothiolate and corresponding alkylated or protonated salts | 78-53-5    | 4                           | Controlled hazardous substance according to list 1A (toxic chemicals) annexed to the Chemical Weapons Convention |
| 13  | Sulfur mustards                                                                                                     | -          | 4                           | Controlled hazardous substance according to list 1A (toxic chemicals) annexed to the Chemical Weapons Convention |
| 14  | Lewisites                                                                                                           | -          | 4                           | Controlled hazardous substance according to list 1A (toxic chemicals) annexed to the Chemical Weapons Convention |
| 15  | Nitrogen mustards                                                                                                   | -          | 4                           | Controlled hazardous substance according to list 1A (toxic chemicals) annexed to the Chemical Weapons Convention |

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**Annexed to the Notification of Ministry of Industry on List of Hazardous Substances (No.2) B.E. 2558**  
**List 5: Responsible by Department of Industrial Works**

List 5.6 Groups of Substances Controlled by their Properties

| No. | Name of Hazardous Substance           | CAS Number | Type of Hazardous Substance | Condition                                                                                                                                                                    |
|-----|---------------------------------------|------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Explosive                             | -          | 1                           | Only substances or mixtures not having responsible organization for production or import. They shall be complied with criteria and method prescribed by Ministry of Industry |
| 2   | Flammable substance                   | -          | 1                           | Only substances or mixtures not having responsible organization for production or import. They shall be complied with criteria and method prescribed by Ministry of Industry |
| 3   | Oxidizing agent or Peroxide           | -          | 1                           | Only substances or mixtures not having responsible organization for production or import. They shall be complied with criteria and method prescribed by Ministry of Industry |
| 4   | Toxic substance                       | -          | 1                           | Only substances or mixtures not having responsible organization for production or import. They shall be complied with criteria and method prescribed by Ministry of Industry |
| 5   | Mutagen                               | -          | 1                           | Only substances or mixtures not having responsible organization for production or import. They shall be complied with criteria and method prescribed by Ministry of Industry |
| 6   | Corrosive                             | -          | 1                           | Only substances or mixtures not having responsible organization for production or import. They shall be complied with criteria and method prescribed by Ministry of Industry |
| 7   | Irritant                              | -          | 1                           | Only substances or mixtures not having responsible organization for production or import. They shall be complied with criteria and method prescribed by Ministry of Industry |
| 8   | Carcinogen                            | -          | 1                           | Only substances or mixtures not having responsible organization for production or import. They shall be complied with criteria and method prescribed by Ministry of Industry |
| 9   | Toxic substance to reproductive organ | -          | 1                           | Only substances or mixtures not having responsible organization for production or import. They shall be complied with criteria and method prescribed by Ministry of Industry |
| 10  | Environmentally hazardous substance   | -          | 1                           | Only substances or mixtures not having responsible organization for production or import. They shall be complied with criteria and method prescribed by Ministry of Industry |