

## 有害物質一覽表

### Hazardous Substances Control List

#### 壹、RoHS 限用之物質 RoHS Related substances

##### (1)RoHS 指令的有害物質 Hazardous Substances of RoHS Directive :

項目 Item	物質名稱 Substances	限制值 Threshold Limit	備註內容 Remark
1	鎘及其化合物 (Cd) Cadmium (Cd) and its compounds	<100ppm	重金屬 Heavy Metal
2	鉛及其化合物 (Pb) Lead (Pb) and its compounds	<1000ppm	
3	汞及其化合物 (Hg) Mercury (Hg) and -compounds	<1000ppm	
4	六價鎳及其化合物 (Cr <sup>6+</sup> ) Chromium (hexavalent) compounds	<1000ppm	
5	多溴聯苯 (PBB) Polybrominated biphenyls	<1000ppm	
6	多溴聯苯醚 (PBDEs) Polybromodiphenyl ethers	<1000ppm	
7	鄰苯二甲酸二(2-乙基己基)酯 (DEHP) Bis (2-ethylhexyl) phthalate	<1000ppm	
8	鄰苯二甲酸丁酯苯甲酯 (BBP) Butyl benzyl phthalate	<1000ppm	
9	鄰苯二甲酸二丁酯 (DBP) Dibutyl phthalate	<1000ppm	
10	鄰苯二甲酸二異丁酯 (DIBP) Diisobutyl phthalate	<1000ppm	

#### 環境管理物質主要對象 Environmental management of the main material objects :

##### ①鎘 ( Cd )

物質名稱： Substances	鎘以及鎘化合物。 Cadmium (Cd) and its compounds.
說明： Description	金屬、合金、無機化合物、有機化合物、無機鹽、有機鹽等包含鎘元素的所有物質。 Metals, alloys, inorganic compounds, organic compounds, inorganic salts, organic salts and other substances containing cadmium.
主要用途： Main purpose	塑料、塗料、表面處理、電池等。 Plastics, coatings, surface treatment, batteries

##### ②鉛 ( Pb )

物質名稱： Substances	鉛以及鉛化合物。 Lead (Pb) and its compounds.
說明： Description	金屬、合金、無機化合物、有機化合物、無機鹽、有機鹽等包含鉛元素的所有物質。 Metals, alloys, inorganic compounds, organic compounds, inorganic salts, organic salts and other substances containing Lead.

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主要用途： Main purpose	包裝材、塗料、墨水、顏料、電池、焊錫材料、合金、塑料中穩定劑、電路板、元件等。 Packaging materials, paints, inks, pigments, batteries, solder materials, alloys, plastics Stabilizer, circuit boards, components.
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③汞 ( Hg )

物質名稱： Substances	汞以及汞化合物。 Mercury (Hg) and -compounds.
說明： Description	金屬、合金、無機化合物、有機化合物、無機鹽、有機鹽等包含汞元素的所有物質。 Metals, alloys, inorganic compounds, organic compounds, inorganic salts, organic salts and other substances containing Mercury.
主要用途： Main purpose	包裝材、顏料、塗料、墨水、日光燈、電池、催化劑、塑料等。 Packaging materials, pigments, coatings, inks, fluorescent lamps, batteries, catalysts, plastics.

④鉻 ( Cr6+ )

物質名稱： Substances	六價鉻化合物。 Chromium (hexavalent) compounds.
說明： Description	金屬、合金為物件之外。無機化合物、有機化合物、無機鹽、有機鹽等包含六價鉻的所有物質。 Metals, alloys, inorganic compounds, organic compounds, inorganic salts, organic salts and other substances containing Mercury.
主要用途： Main purpose	包裝材、電池、塗料、電鍍、防腐劑等。 Packaging materials, batteries, coatings, electroplating, preservatives.

⑤有機溴化合物 Organic bromine compounds ----多溴聯苯 ( PBB )

物質名稱： Substances	多溴聯苯 ( PBB )。 Polybrominated biphenyls.
主要用途： Main purpose	塑膠的阻燃劑等。 Plastic flame retardants.

⑥有機溴化合物 Organic bromine compounds ----多溴二苯醚 ( PBDE )

物質名稱： Substances	多溴二苯醚 ( PBDE )。 Polybromodiphenyl ethers
主要用途： Main purpose	塑膠的阻燃劑等。 Plastic flame retardants.

⑦鄰苯二甲酸鹽類 Phthalate --- 鄰苯二甲酸二(2-乙基己基)酯(DEHP )

物質名稱： Substances	鄰苯二甲酸二(2-乙基己基)酯 ( DEHP )。 Bis (2-ethylhexyl) phthalate
主要用途： Main purpose	可做為PVC塑膠的塑化劑。PVC塑膠中DEHP的含量在1%到40%之間。DEHP還可作為液壓油、電容器的介電質及螢光棒中的溶劑。 Can be used as PVC plastic plasticizer. PVC plastic DEHP content of 1% to 40%. DEHP can also be used as hydraulic oil, capacitor dielectric and fluorescent rods in the solvent

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⑧鄰鄰苯二甲酸鹽類 Phthalate ----鄰苯二甲酸丁酯苯甲酯 ( BBP )

物質名稱 : Substances	鄰苯二甲酸丁酯苯甲酯 ( BBP ) 。 Butyl benzyl phthalate
主要用途 : Main purpose	通常用於作地板材料的泡狀聚氯乙烯；有R和R'基團的鄰苯二甲酸酯用作香水和農藥的溶劑。 Usually used as a flooring material of PVC; Phthalates with R and R' groups are used as solvents for perfumes and pesticides

⑨鄰苯二甲酸鹽類 Phthalate ----鄰苯二甲酸二丁酯 ( DBP )

物質名稱 : Substances	鄰苯二甲酸二丁酯 ( DBP ) Diisobutyl phthalate
主要用途 : Main purpose	常用的增塑劑，也用作膠粘劑和印刷油墨的添加劑及在陶瓷材料中會添加DBP幫助混合Powder用，材料燒結後可能殘留。可溶於多種有機溶劑，如醇、醚和苯。DBP也用作一種殺體外寄生蟲藥。 Commonly used plasticizers, Also used as an adhesive and printing ink additives and in the ceramic material will be added DBP to help mix Powder, Material may remain after sintering. Soluble in a variety of organic solvents, such as alcohols, ethers and benzene. DBP is also used as an ectoparasitic drug.

⑩鄰苯二甲酸鹽類 Phthalate ----鄰苯二甲酸二異丁酯 ( DIBP )

物質名稱 : Substances	鄰苯二甲酸二異丁酯 ( DIBP ) Diisobutyl phthalate
主要用途 : Main purpose	是用於硝化纖維的最廉價的增塑劑。 Used Nitrocellulose the cheapest plasticizer.

**(2) 關注的環境管理物質 Concern on Environmental Management Substance**

項目 Item	物質名稱 Substances	限制值 Threshold Limit	備註內容 Remark
1	多氯聯苯 ( PCB ) Polychlorinated Biphenyls	<50ppm	有機氯化合物 Organochloride compounds
2	多氯化萘 ( PCN ) Polychlorinated Naphthalenes	N.D.	
3	氯代烷烴 ( CP ) Short-chain Chlorinated Paraffins	N.D.	
4	滅蟻靈 ( Mirex ) Perchlordecone	N.D.	
5	其他有機氯化合物 Other chlorinated organic compounds	<900 ppm	
6	四溴雙酚-A-雙- ( 2, 3-二溴丙酮 ) ( TBBP-A-bis ) TBBP-A, Tetrabromo Bisphenol-A	N.D.	有機溴化合物 chlorinated organic compounds
7	其他有機溴化合物 Other brominated organic compounds	<900 ppm	
8	有機錫化合物 ( 三丁基錫化合物、三苯基錫化合物 ) Organotin compounds · Tributyl tin compounds · Triphenyl tin compounds	<1000ppm	
9	石棉 Asbestos ( all types )	N.D.	
10	偶氮化合物 Specific Azo compounds	<30ppm	
11	甲醛 Formaldehyde	N.D.	

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12	聚氯乙烯 ( PVC ) 以及聚氯乙烯混合物 Polyvinyl chloride and PVC blends	N.D.
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**環境管理物質主要對象 Environmental management of the main material objects :**

**①多氯聯苯 Polychlorinated Biphenyls ( PCB )**

物質名稱： Substances	多氯聯苯 ( PCB ) 。 Polychlorinated Biphenyls.
主要用途： Main purpose	油浸變壓器、電容器、絕緣油、潤滑油、塑膠阻燃劑等。 Oil-immersed transformers, capacitors, insulating oil, lubricants, plastic flame retardants.

**②多氯化萘 Polychlorinated Naphthalenes ( PCN )**

物質名稱： Substances	多氯化萘 ( PCN ) 。 Polychlorinated Naphthalenes
主要用途： Main purpose	潤滑油、塗料等所有用途：氯原子數 $\geq 3$ 以上的多氯化萘 ( PCN ) 產品。 Lubricants, coatings and other uses: chlorine atoms $\geq 3$ or more of polychlorinated naphthalene ( PCN ) products

**③氯代烷烴 Short-chain Chlorinated Paraffins ( CP )**

物質名稱： Substances	氯代烷烴 ( CP ) 。 Short-chain Chlorinated Paraffins
主要用途： Main purpose	含有附件產品的外框 ( 外殼 ) 、印刷電路板。 Contain annex Product of Frame ( case ), printed circuit board.

**④滅蟻靈 Perchlordecone ( Mirex )**

物質名稱： Substances	滅蟻靈 ( Mirex ) 。 Perchlordecone.
主要用途： Main purpose	樹脂、橡膠、塗料、紙張、紡織物、電氣產品等的阻燃劑、殺蟲劑、防銹劑等。 Resin, rubber, paint, paper, textiles, electrical products such as flame retardants, pesticides, anti-rust agent.

**⑤其他有機氯化合物 Other chlorinated organic compounds**

物質名稱： Substances	其他有機氯化合物。 Other chlorinated organic compounds
主要用途： Main purpose	塑膠的阻燃劑、增塑劑、印刷電路板等上的阻燃劑等。 Plastic flame retardants, plasticizers, Flame retardants on printed circuit boards.

**⑥有機溴化合物四溴雙酚-A-雙( 2,3-二溴丙酮 )TBBP-A,Tetrabromo Bisphenol-A( TBBP-A-bis )**

物質名稱： Substances	有機溴化合物四溴雙酚-A-雙( 2,3-二溴丙酮 ) ( TBBP-A-bis ) TBBP-A,Tetrabromo Bisphenol-A。
主要用途： Main purpose	塑膠的阻燃劑等。 Plastic flame retardants

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**⑦其他有機溴化合物 Other brominated organic compounds**

物質名稱： Substances	其他有機溴化合物。 Other brominated organic compounds
主要用途： Main purpose	塑膠的阻燃劑、印刷電路板等上的阻燃劑等。 Plastic flame retardants, Flame retardants on printed circuit boards.

**⑧有機錫化合物 ( 三丁基錫化合物、三苯基錫化合物 ) Organotin compounds · Tributyl tin compounds · Triphenyl tin compounds**

物質名稱： Substances	有機錫化合物 ( 三丁基錫化合物、三苯基錫化合物 ) 。 Organotin compounds · Tributyl tin compounds · Triphenyl tin compounds
主要用途： Main purpose	紡織品、塗料、墨水、防腐劑、防銹劑、油漆、黏和劑殺螺消毒劑、塑膠穩定劑、海洋防污劑。 Textiles, paints, inks, preservatives, rust inhibitors, paints, adhesives, snail disinfectant, plastic stabilizer, marine antifouling agent

**⑨石棉 Asbestos (all types)**

物質名稱： Substances	石棉。 Asbestos (all types)
主要用途： Main purpose	隔熱材、絕緣材料、吸音材、防火材、防磨襯墊、填料等。 Heat insulation materials, Insulation materials, sound-absorbing material, fire-proof material, wear-resistant liner, filler.

**⑩偶氮化合物 Specific Azo compounds**

物質名稱： Substances	偶氮化合物 Specific Azo compounds
主要用途： Main purpose	紡織品染料、會與人體所接觸產品之 ( 耳機、微型耳機、肩包的肩墊、皮帶、繩索、遙控器、膠墊、載運框、滑鼠等 ) 顏料、按照德國日用品規則的試驗法將偶氮化合物進行分解，有可能產生下表中的胺 ( NH2 ) 等。 Textile dyes, will contact with the human body products (Headphones, mini-headphones, shoulder pads shoulder pads, belts, ropes, remote control, pads, carrying boxes, mouse), The decomposition of the azo compound in accordance with the test method of the German Code of Daily Use may result in the production of amine (NH2)

**偶氮化合物分解而不得產生的胺一覽表 AZO compounds forming specified amine:**

項次 Item	CAS No.	物質名稱 Substance	項次 Item	CAS No.	物質名稱 Substance
1	92-67-1	4-氨基聯苯 4-AMINODIPHENYL	13	838-88-0	4,4'-二氨基-3,3'-二氯二苯甲烷 3,3'-DIMETHYL,4'-DIAMINODIPHENYLMETHANE
2	92-87-5	聯苯胺 Benzidine	14	120-71-8	2-甲氧基-5-甲基苯胺 2-METHOXY-5-METHYLANILINE
3	91-59-8	2-萘胺 2-Naphthylamine	15	101-14-4	4,4'-二氨基-3,3'-二氯二苯甲烷 4,4'-METHYLENE-BIS-(2-CHLOROANILINE)
4	99-55-8	2-氨基-4-硝基甲苯 2-AMINO-4-NITROTOLUENE	16	101-80-4	4,4'-二氨基聯苯醚 4,4'-OXYDIANILINE

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5	95-69-2	4-氯鄰甲苯胺 4-CHLORO-O-TOLUIDINE	17	139-65-1	二氨基二苯硫醚 4,4'-THIODIANILINE
6	97-56-3	鄰氨基偶氮甲苯 O-AMINOAZOTOLUENE	18	95-53-4	鄰甲苯胺 O-TOLUIDINE
7	106-47-8	對氯苯胺 P-CHLOROANILINE	19	95-80-7	2,4-二氨基甲苯 2,4-TOLUYLENE DIAMINE
8	615-05-4	2,4-二氨基苯甲醚 2,4-DIAMINOANISOLE	20	137-17-7	2,4,5-三甲基苯胺 2,4,5-TRIMETHYLANILINE
9	101-77-9	4,4'-二氨基二苯甲烷 4,4'-DIAMINODIPHENYLMETHANE	21	90-04-0	鄰氨基苯甲醚 O-ANISIDINE
10	91-94-1	3,3'-二氯聯苯胺 3,3'-DICHLOROBENZIDINE	22	60-09-3	4-氨基偶氮苯 P-AMINOAZOBENZENE
11	119-93-7	3,3'-二甲基聯苯胺 3,3'-DIMETHYLBENZIDINE	23	95-68-1	2,4-二甲基苯胺 2,4-XYLIDINE
12	119-90-4	3,3'-二甲氧基聯苯胺 3,3'-DIMETHOXYBENZIDINE	24	87-62-7	2,6-二甲基苯胺 2,6-XYLIDINE

## ⑪甲醛 Formaldehyde

物質名稱： Substances	甲醛。 Formaldehyde
主要用途： Main purpose	保存劑(福馬林)、消毒劑、建材、傢俱、尿素甲醛樹脂黏合劑等。 Preservatives (fumalin), disinfectants, building materials, furniture, urea formaldehyde resin adhesives.

## ⑫聚氯乙烯 ( PVC ) 以及聚氯乙烯混合物 Polyvinyl chloride and PVC blends

物質名稱： Substances	聚氯乙烯 ( PVC ) 以及聚氯乙烯混合物。 Polyvinyl chloride and PVC blends
主要用途： Main purpose	塑膠管、電纜線外緣、包裝材料、薄板、絕緣板、黏合劑等。 Plastic pipe, cable edge, packaging materials, sheet, insulation board, adhesive

## 貳、鹵素化合物之限值與禁用規範 Limits and disable the specification of halogen compounds

### (1)無鹵素限用之物質 Halogen-free Restricted Substances

項目 Item	物質名稱 Substances	限制值 Threshold Limit	備註內容 Remark
1	氯(Cl) Chlorine	<900ppm	鹵族元素 Halogen elements
2	溴(Br) Bromine	<900ppm	
3	氯(Cl) + 溴(Br) Chlorine + Bromine	<1500ppm	

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環境管理物質主要對象 Environmental management of the main material objects :

①鹵素元素 Halogen elements :

物質名稱： Substances	氯Cl、溴Br Chlorine、Bromine
主要用途： Main purpose	PVC、PCB 板、塑膠、連接器、焊錫(助焊劑)、界面活性劑 PVC, PCB board, plastic, connectors, solder (flux), the surface active agent

(2)鹵素化合物 Halogen compound

項目 Item	物質名稱 Substances	限制值 Threshold Limit	備註內容 Remark
1	多溴聯苯(PBBs) polybrominated biphenyls	<1000ppm	溴系阻燃劑 Brominated flame retardants
2	多溴聯苯醚(PBDEs) Polybrominated diphenyl ethers	<1000ppm	
3	四溴雙酚-A (TBBP-A) Tetrabromo Bisphenol-A	N.D.	
4	六溴環十二烷(HBCD) Hexabromocyclododecane	N.D.	
5	十溴聯苯醚(Deca-BDE) Bis(pentabromophenyl) ether	<100ppm	
6	短鏈氯化石臘(C10-13,SCCP) short-chain chlorinated paraffins	<1000ppm	氯系阻燃劑 Chlorinated flame retardants
7	中鏈氯化烷烴(MCCP) Medium-chain chlorinated paraffins	<1000ppm	
8	氯化脂環烴四氯鄰苯二甲酸酐(TCP) Tetrachlorophthalic anhydride	<1000ppm	
9	多氯聯苯(PCBs) Polychlorinated Biphenyls	<50ppm	
10	多氯化萘(PCNs) Polychlorinated Naphthalene	N.D.	氯系化合物 Chlorine-based compounds
11	多氯三聯苯(PCTs) Polychlorinated Terphenyls	<50ppm	
12	全氟辛酸(PFOA) Perfluorooctanoic acid	N.D.	
13	全氟辛烷磺酸(PFOS) Perfluorooctane sulfonates	N.D.	氟系化合物 Fluorine-based compound

環境管理物質主要對象 Environmental management of the main material objects :

①溴系阻燃劑 Brominated flame retardants

物質名稱： Substances	多溴聯苯(PBBs)、多溴聯苯醚(PBDEs)、四溴雙酚-A (TBBP-A)、六溴環十二烷(HBCD)、十溴聯苯醚(Deca-BDE)。 polybrominated biphenyls、Polybrominated diphenyl ethers、Tetrabromo Bisphenol-A、Hexabromocyclododecane、 Bis(pentabromophenyl) ether
主要用途： Main purpose	塗料、電絕緣材料、印刷電路積層板和電子封裝材料、土木和建築材料、接著劑、航太工業等。 Coatings, Electrical Insulating Materials, Printed Circuit Boards and Electronic Packaging Materials, Civil and Building Materials, Adhesives, Aerospace Industries

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②氯系阻燃劑 Chlorinated flame retardants

物質名稱： Substances	短鏈氯化烷烴(C10-13,SCCP)、中鏈氯化烷烴(MCCP)、氯化脂環烴四氯鄰苯二甲酸酐(TCP)。 short-chain chlorinated paraffins、short-chain chlorinated paraffins、Tetrachlorophthalic anhydride
主要用途： Main purpose	塗料、電絕緣材料、印刷電路積層板和電子封裝材料、土木和建築材料、接著劑、航太工業等。 Coatings, Electrical Insulating Materials, Printed Circuit Boards and Electronic Packaging Materials, Civil and Building Materials, Adhesives, Aerospace Industries

③氯系化合物 Chlorine-based compounds

物質名稱： Substances	多氯聯苯(PCBs)、多氯化萘(PCNs)、多氯三聯苯(PCTs) Polychlorinated Biphenyls、Polychlorinated Naphthalene、Polychlorinated Terphenyls
主要用途： Main purpose	潤滑劑、電容器油、防腐劑、油浸變壓器、絕緣油、潤滑油、塑膠阻燃劑等。 Lubricants, capacitor oil, preservatives, oil-immersed transformers, insulating oils, lubricants, plastic flame retardants

④氟系化合物 Fluorine-based compound

物質名稱： Substances	全氟辛酸(PFOA)、全氟辛烷磺酸(PFOS) Perfluoroctanoic acid、Perfluorooctane sulfonates
主要用途： Main purpose	紡織、皮革、造紙、金屬表面塗層、潤滑油、黏著劑、焊錫等。 Textiles, leather, paper, metal surface coating, lubricants, adhesives, solder

## 參、持久性有機污染物質(POPs) Persistent Organic Pollutants

### (1)限用之物質 Restricted/Banned Hazardous Substances

項目 Item	物質名稱 Substances	限制值 Threshold Limit	備註內容 Remark
1	可氯丹 Chlordane	N.D.	首批 9 種有機氯農藥 The first batch of 9 organochlorine pesticides
2	地特靈 Dieldrin	N.D.	
3	滴滴涕 ( DDT ) Dichloro-Diphenyl-Trichloroethane	N.D.	
4	毒殺芬 toxaphene,campechlor	N.D.	
5	安特靈 Endrin	N.D.	
6	飛佈達 Heptachlor	N.D.	
7	阿特靈 Aldrin	N.D.	
8	六氯苯 Hexachlorobenzene,hcb	N.D.	
9	滅蠟樂 Mirex	N.D.	
10	多氯聯苯 ( Pcb ) polychlorinated biphenyl	<50ppm	首批用於工業之 POPs The first batch for

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			industry of POPs
11	戴奧辛 Dioxins	N.D.	首批無意排放之 POPs The first batch Unintentional discharge of POPs
12	呋喃 Furans	N.D.	
13	α-六氯環己烷 Alpha hexachlorocyclohexane	N.D.	
14	β-六氯環己烷 β-hexachlorocyclohexane	N.D.	
15	十氯酮 Chlordcone	N.D.	
16	六溴聯苯 Hexabromobiphenyl	N.D.	
17	靈丹 Lindane	N.D.	COP4 新增 9 種 POPs COP4 adds 9 POPs
18	五氯苯 Pentachlorobenzene	N.D.	
19	全氟辛烷磺酸、其鹽類和全氟辛基磺醯氟 Perfluorooctane sulfonic acid( PFOS ), its salts and perfluorooctane sulfonyl fluoride( PFOSF )	N.D.	
20	七溴二苯醚、六溴二苯醚 HeptaBDE、HexaBDE	N.D.	
21	五溴二苯醚、四溴二苯醚 PentaBDE、TetraBDE	N.D.	
22	安殺番 Endosulfan	N.D.	COP5 新增 1 種 POPs COP5 adds 1 POPs
23	六溴環十二烷 (HBCD) Hexabromocyclododecane	N.D.	COP6 新增 1 種 POPs COP6 adds 1 POPs

環境管理物質主要對象 Environmental management of the main material objects :

①首批9種有機氯農藥 The first batch of 9 organochlorine pesticides

物質名稱： Substances	可氯丹、地特靈、滴滴涕、毒殺芬、安特靈、飛佈達、阿特靈、六氯苯、滅蟻樂 Chlordane、dieldrin、Dichloro-Diphenyl-Trichloroethane(DDT)、Toxaphene,campechlor、Endrin、Heptachlor、Aldrin、Hexachlorobenzene(HCB)、Mirex
主要用途： Main purpose	殺蟲劑 Insecticides

②首批用於工業之POPs The first batch for industry of POPs

物質名稱： Substances	多氯聯苯 ( PCBS ) polychlorinated biphenyl
主要用途： Main purpose	油浸變壓器、電容器、絕緣油、潤滑油、塑膠阻燃劑等。 Oil-immersed transformers,Capacitors, insulating oil, lubricants, plastic flame retardants

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③首批無意排放之POPs The first batch Unintentional discharge of POPs

物質名稱： Substances	戴奧辛、呋喃 Dioxins、Ffurans
主要用途： Main purpose	在燃燒氧化不完全以及在特定工業製程燃燒、生產行為 The combustion oxidation is not complete as well as In a specific industrial process combustion, production behavior

④COP4新增9種POPs COP4 adds 9 POPs

物質名稱： Substances	α-六氯環己烷、β-六氯環己烷 Alpha hexachlorocyclohexane、β-hexachlorocyclohexane
主要用途： Main purpose	生產一噸靈丹的同時會產生 6-10 噸的其他異構體 Producing a ton of panacea at the same time Will produce 6-10 tons of other isomers

物質名稱： Substances	十氯酮 Chlordecone
主要用途： Main purpose	農用殺蟲劑、殺劑和殺真菌劑 Agricultural pesticides, killers and fungicides

物質名稱： Substances	六溴聯苯 Hexabromobiphenyl)
主要用途： Main purpose	塑膠和合成纖維的阻燃劑 Plastic and synthetic fiber flame retardants

物質名稱： Substances	靈丹、五氯苯 Lindane、 Pentachlorobenzene)
主要用途： Main purpose	殺蟲劑、阻燃劑 Insecticides, flame retardants

物質名稱： Substances	全氟辛烷磺酸、其鹽類和全氟辛基磺醯氟 Perfluorooctane sulfonic acid ( PFOS ) 、its salts and perfluorooctane sulfonyl fluoride ( PFOSF ) )
主要用途： Main purpose	紡織品和皮革製品、電鍍、食品包裝、滅火器泡沫、地板打磨、牙科清潔劑、洗頭劑、塗料和塗料添加劑、照像和照像平版印刷行業以及航空業的液壓油。 Textiles and leather products, electroplating, food packaging, fire extinguisher foam, floor polishes, dental cleaners, shampoos, coatings and coating additives, photographic and photographic lithography industries and aviation industry.

物質名稱： Substances	七溴二苯醚、六溴二苯醚、五溴二苯醚、四溴二苯醚 HeptaBDE、HexaBDE、PentaBDE、TetraBDE
主要用途： Main purpose	阻燃劑，常添加於各種樹脂、橡膠、電子材料及建築相關材料中 Flame retardant, often added to a variety of resins, rubber, electronic materials and construction-related materials

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⑤COP5新增1種POPs COP5 adds 1 POPs

物質名稱： Substances	安殺番 Endosulfan
主要用途： Main purpose	殺蟲劑、木材防腐劑 Insecticides, wood preservatives

⑥COP6新增1種POPs COP6 adds 1 POPs

物質名稱： Substances	六溴環十二烷 Hexabromocyclododecane · HBCD
主要用途： Main purpose	車輛、建築(隔熱板和嵌入夾層中)、紡織品、電氣和電子器材(耐衝擊性聚苯乙烯 HIPS ) 中，亦可用於橡膠黏合劑、膠水、油漆等。 Vehicles, construction (Insulating panels and embedded interlayer), textiles, electrical and electronic equipment (impact-resistant polystyrene HIPS), and can be used for rubber adhesives, glues, paint

## 肆、包裝材料禁限用物質 Packing Materials Restricted/Banned Hazardous Substances

### (1)限用之物質 Restricted/Banned Hazardous Substances

項目 Item	物質名稱 Substances	限制值 Threshold Limit	備註內容 Remark
1	鉛(Pb) + 鎘(Cd) + 汞(Hg) + 六價鉻(Cr <sup>6+</sup> ) Pb+Cd+Hg+ Cr <sup>6+</sup> Lead+Cadmium+ Mercury+ Chromium (hexavalent) compounds	<100ppm	重金屬 Heavy Metal
2	聚氯乙烯(PVC)、氯乙烯及 PVC 混合物 Polyvinyl chloride、Vinyl chloride and PVC blends	N.D.	鹵化塑膠 Halogenated plastic
3	氯 Cl Chlorine	<900ppm	鹵素化合物 Halogen compound
4	溴 Br Bromine	<900ppm	
5	氯 Cl + 溴 Br Chlorine + Bromine	<1500ppm	
6	鹵素耐燃劑 Halogen flame retardant	<1000ppm	臭氧危害物質 Ozone hazardous substances
7	甲醛(木製產品) Formaldehyde (Wooden Products)	N.D.	
8	發泡聚苯乙烯(EPS) Foamed polystyrene	N.D.	
8	氟氯碳化物(CFCs) Chlorofluorocarbons	N.D.	
9	海龍 Halon	N.D.	
10	四氯化碳(CCL4) Carbon tetrachloride	N.D.	

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11	1-1-1 三氯甲烷(C2H3Cl3) Chloroform	N.D.
12	氯溴甲烷(CH2BrC) Bromochloromethane	N.D.
13	氟氯烃化物(HCFCs) Hydrogenated chlorofluorocarbon	N.D.
14	溴氟烃化物(HBFCs) Hydrogenated bromofluorocarbons	N.D.
15	六氟化硫(HBFCs) Sulfur Hexafluoride	N.D.

環境管理物質主要對象 Environmental management of the main material objects :

①包裝材料 Packing Materials

物質名稱： Substances	包裝材料禁限用物質 Restricted/Banned Substance for Packing Materials
主要用途： Main purpose	產品包裝紙盒、產品箱、用於搬運部件包裝上的產品(把手、木框、箔以及托架、導軌、杠杆、膠捲盒、袋、緩衝材料、固定器具、薄板、繩索、硬紙箱、塗料、墨水、膠帶、捆綁帶、標籤、膠墊等)。 Products Packaging cartons, product cases, products for handling components (handles, wooden frames, foils and brackets, rails, levers, film boxes, bags, cushioning materials, fixtures, sheets, ropes, cardboard boxes, coatings , Ink, tape, tied with, labels, pads.)

伍、其它禁限用物質 Others Restricted/Banned Hazardous Substances

(1)限用之物質 Restricted/Banned Hazardous Substances

項目 Item	物質名稱 Substances	限制值 Threshold Limit	主要用途 Purpose
1	磷酸三硬脂精(2-氯二乙硫醚) (TCEP)、磷酸三(2-氯丙基)酯 (TCPP)、磷酸三(2,3-二氯丙基)酯 (TDCPP) Tris(2-chloroethyl) phosphate (TCEP) , Tris(2-chloro-1-methylethyl) phosphate (TCPP), Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	<1000ppm	塑膠、樹脂、纖維、布料的耐燃劑用途 Plastics, resins, fibers, fabrics flame retardant uses.
2	高氯酸鹽 Perchlorates	<0.006ppm	炸藥、煙火、爆竹、道路照明燈與火箭發動劑 Explosives, fireworks, firecrackers, road lighting and rocket propellant
3	氫氟碳化合物(HFC)、全氟化碳(PFC)、六氟化硫 (SF6) Hydrofluorocarbon、Perfluorocarbon、Sulfur hexafluoride	N.D.	製冷劑、隔熱材料、投影機電源裝置 Refrigerants, insulation materials, projector power supply devices
4	三取代基有機錫化合物(包含三丁基氧化錫化合物、三丁基錫化合物) Trisubstituted organotin compounds(including tributyltin (TBT) compounds and triphenyltin (TPT) compounds	<1000ppm	紡織品、手套及紡織基材的地板革 Textiles, gloves and textile substrate of the floor leather
5	二丁基錫化合物(DBT) Dibutyltin (DBT) compounds	<1000ppm	塑膠橡膠添加劑、塗料及塗抹劑的觸媒、託盤、裝運管、制動機、帶盤、壓紋承

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			載 Plastic rubber additives, coatings and coating agent catalyst, tray, shipping tube, brake, reel, embossed bearing
6	二辛基錫化合物(DOT) Diocetyltin (DOT) compounds	<1000ppm	纖維、布料中的添加劑 Fiber, fabric of the additives
7	氧化鋨 Beryllium oxide	N.D.	合金、催化劑和耐火材料 Alloys, catalysts and refractories
8	鍍青銅 Beryllium copper	N.D.	合金、催化劑和耐火材料 Alloys, catalysts and refractories
9	二氯化鈷 Cobalt dichloride	N.D.	乾燥劑(矽膠)中的濕度指示 計 In the desiccant (silica gel) Humidity indicator
10	三氧化二砷、五氧化二砷 Diarsenic trioxide、Diarsenic pentaoxide	<1000ppm	液晶屏 (包含玻璃罩、手觸屏、後照燈) 玻璃的消泡劑、澄清劑的用途 LCD screen (including glass, hand-touch screen, backlight) glass defoamer, clarifying agent Of the use
11	鄰苯二甲酸(2-乙基己基酯)、鄰苯二甲酸二丁酯、鄰苯二甲酸丁苄酯、鄰苯二甲酸二異丁酯 Bis (2-ethylhexyl)phthalate, Dibutyl phthalate, Benzyl butyl phthalate, Diisobutyl phthalate	<1000ppm	便攜包、裝運箱、保護套、塑膠包裝袋、收縮膜 Carrying cases, shipping cases, protective cover, plastic bags, shrink film
12	特定鄰苯二甲酸鹽的有害物質 Phthalates harmful substances： 1. 鄰苯二甲酸二異壬酯 Diisononyl ortho-phthalate (DINP) 2. 鄰苯二甲酸(2-乙基己基)酯 Bis(2-ethylhexyl)ortho-phthalate (DEHP) 3. 鄰苯二甲酸二正丁酯 Di-n-butyl ortho-phthalate (DBP) 4. 鄰苯二甲酸二異葵酯 Diisodecyl ortho-phthalate (DIDP) 5. 鄰苯二甲酸二異丁酯 Di-iso-butyl ortho-phthalate (DIBP) 6. 鄰苯二甲酸丁基苄酯 Benzyl-n-butyl ortho-phthalate (BBP) 7. 鄰苯二甲酸二正辛酯 Di-n-octyl ortho-phthalate (DNOP) 8. 鄰苯二甲酸二異辛酯 Diisooctyl ortho-phthalate (DIOP) 9. 鄰苯二甲酸二甲酯 Dimethyl ortho-phthalate (DMP) 10. 鄰苯二甲酸二正壬酯 Dinonyl ortho-phthalate (DNNP)	<1000ppm	塑膠增塑劑、農藥載體、驅蟲劑、化妝品、香味品、潤滑劑、去污劑 Plasticizers, pesticide carriers, insect repellents, cosmetics, fragrances, lubricants, detergents

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	11. 鄰苯二甲酸二庚酯 Dinheptyl ortho-phthalate (DHP) 12. 鄰苯二甲酸二戊酯 Diphenyl ortho-phthalate (DPP) 13. 鄰苯二甲酸二乙酯 Diethyl ortho-phthalate (DEP) 14. 鄰苯二甲酸二環己酯 Dicyclohexyl ortho-phthalate (DCHP) 15. 鄰苯二甲酸二丙酯 Di-propyl ortho-phthalate (DPRP) 16. 鄰苯二甲酸二壬酯 Diisonoyl adipate (DINA)		
13	特定苯並三氮唑 Specific benzotriazole	N.D.	塑膠、合成纖維、其它有機物 Plastics, synthetic fibers, and other organic materials
14	富馬酸二甲酯(DMF) Dimethyl fumarate (DMF)	<0.1ppm	揮發性溶劑、添加劑防止發霉(接著劑及表面塗裝)、乾燥劑、丙烯纖維及塑料 Plastics, synthetic fibers, other organic volatile solvents, additives to prevent mildew (adhesives and surface coating), desiccant, acrylic fiber and plastic
15	多環芳香烴化合物 Polycyclic hydrocarbons (PAHs)	<1 ppm	橡膠或塑膠零部件 Rubber or plastic parts
16	硼酸、特定硼酸鈉 Boric acid、specific sodium borates	<1000 ppm	所有用途 All uses
17	4-(1,1,3,3-四甲基丁基)苯酚 4-(1,1,3,3-tetramethylbutyl) phenol	<1000 ppm	所有用途 All uses
18	二乙二醇二甲醚 Bis(2-methoxyethyl) ether	<1000 ppm	所有用途 All uses
19	N',N-二甲基乙醯胺(DMAC) N,N-dimethylacetamide (DMAC)	<1000 ppm	所有用途 All uses
20	乙二醇二甲醚 (EGDME) Ethylene glycol dimethyl ether (EGDME)	<1000 ppm	所有用途 All uses
21	磷酸三(二甲苯)酯 Trixylyl phosphate(TXP)	<1000 ppm	所有用途 All uses
22	鎳及鎳化合物 Nickel and nickel compounds	<1000 ppm	塑膠之光安定劑、合金、模組、零部件、底框、外架 Plastic light stabilizer, alloy, module, parts, the end of the frame, the outer frame
23	砷(As)及砷化合物 Arsenic (As) and Arsenic compounds	N.D.	半導體材料 Semiconductor materials
24	锑(Sb)及锑化合物 Antimony (Sb) and its compounds	N.D.	半導體材料 Semiconductor materials
25	氫代雙(2-甲氧基乙基)醚 Bis(2-methoxyethyl) ether	<1000 ppm	所有用途 All uses

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26	放射性物質 Radioactive substances： 鈾(U)、鈽(PU)、氡(Rn)、鉻(Am)、釔(Th)、銫(Cs)、鎳(Sr)、鋰(Li)及其他放射性物質。 Uranium (U), Plutonium (PU), Radon (Rn), Americium (Am), Thorium (Th), Cesium (Cs), Strontium (Sr), Lithium (Li) and other radioactive substances.	N.D.	電性感測零件・磷光劑 Electrical sensing parts, phosphorescent agent
27	硒(Se)以及其化合物 Selenium and (Se) its compounds	N.D.	塑膠製品及紡織品的抗菌 塗層 Electrical sensing parts, phosphorescent agent Plastic products and textile antibacterial coating
28	鉍(Bi)以及其化合物 Bismuth and (Bi) its compounds	N.D.	所有用途(不含鉛焊料、焊 料) All uses (Not included Lead solder、solder)
29	鋇(Ba)以及其化合物 Barium (Ba) and its compounds	N.D.	所有用途 All uses
30	雙酚 A Bisphenol-A	N.D.	環氧樹脂、聚碳酸酯樹脂、 其他塑膠 Epoxy resin, polycarbonate resin, other plastics
31	二甲苯麝香及酮麝香 Musk xylene and Musk Ketone	N.D.	香精 perfume
32	介面活性劑 Surfactants： DTDMAC, DODMAC / DSDMAC and DHTDMAC 雙牛油烷基二甲基氯化銨/二牛脂基二甲基氯化/二氫化(動物)脂烷基/二甲基氯化銨、雙硬 酯醯基二甲基氯化銨/二硬脂基二甲基氯化銨、雙(氫化牛油烷基)二甲基氯化銨/二硬化(動 物)脂基二甲基氯化銨 Dimethyl ditallow ammonium chloride, dioctyldimethylammonium chloride /distearyldimethylammonium chloride, dehydrogenated tallow dimethylammonium chloride	N.D.	柔軟劑 Softener
33	五氯酚 Pentachlorophenol, PCP	N.D.	木料防腐劑及殺蟲劑 Wood preservatives and Insecticides
34	三氯沙 Triclosan	N.D.	抗菌劑及殺蟲劑 Antibacterial agent and Insecticides
35	紅磷及其化合物 Red Phosphorus and its compound	N.D.	所有用途 All uses
36	黃磷及其化合物 Yellow Phosphorus and its compound	N.D.	所有用途 All uses
37	六氯苯 Hexachlorobenzene	N.D.	所有用途 All uses
38	三氯苯 Trichlorobenzene	N.D.	所有用途 All uses
39	二氯甲醚 Bis-(chloromethyl) Ether	N.D.	所有用途 All uses
40	毒殺芬 Toxaphene	N.D.	所有用途 All uses
41	氯丹 Chlordanes	N.D.	所有用途 All uses

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42	壬基酚與壬基酚聚氧乙烯醚及相關物質 Nonylphenol / ethoxylates (NP/NPEs) and related substances	N.D.	所有用途 All uses
43	氯化烴 Chlorinated hydrocarbons	N.D.	所有用途 All uses
44	鹵化二苯基甲烷 Halogenated diphenyl methanes	N.D.	電容器、潤滑油、絕緣油、 油浸變壓器 Capacitors, lubricants, insulating oil, oil-immersed transformers
45	甲基溴化物(溴化甲烷) Methyl bromide (Bromomethane)	N.D.	所有用途 All uses
46	溴氯甲烷 Chlorobromomethane	N.D.	所有用途 All uses
47	四氯乙烯(過氯乙烯) Tetrachloroethylenes (perchloroethene)	N.D.	所有用途 All uses
48	三氯乙烯 Trichloroethylene	N.D.	所有用途 All uses
49	六氯環己烷 Hexachlorocyclohexane isomers (HCH)	N.D.	所有用途 All uses
50	多氯聯苯戴奧辛 Polychlorinated dibenzodioxins (PCDDs)	N.D.	所有用途 All uses
51	多氯聯苯呋喃 Polychlorinated dibenzofurans (PCDFs)	N.D.	所有用途 All uses
52	烷基酚 Alkylphenols	N.D.	所有用途 All uses
53	環氧乙烷 Ethylene oxide	N.D.	所有用途 All uses
54	三氯殺醇 Kethane	N.D.	所有用途 All uses
55	氯酚 Chlorophenols	N.D.	所有用途 All uses
56	六氯丁二烯 Hexachlorobutadiene	N.D.	所有用途 All uses
57	鹵化苯化合物 Halogenated benzenes	N.D.	所有用途 All uses
58	鹵化雙環烷類 Halogenated diarylalkanes	N.D.	所有用途 All uses
59	聚溴二苯基氧化物及聚溴聯苯氧化物 Polybrominated diphenyl oxide (PBDO) and Polybrominated biphenyl oxide (PBBO)	N.D.	所有用途 All uses
60	麥角二乙胺 2-benzotriazol-2-yl-4,6-ditert-butyl-phenol	N.D.	所有用途 All uses
61	4-硝基聯苯及其鹽類 4-nitrodiphenyl and its salts	N.D.	所有用途 All uses
62	2,4,6- 第三丁酚 2,4,6-tri-tert-butylphenol	N.D.	所有用途 All uses
63	苯二胺類 N,N'-ditilyl-p-phenylenediamine, N-tolyl-N'-xylyl-p-phenylenediamine, and N,N'-dixylyl-p-phenylenediamine	N.D.	所有用途 All uses
64	苯	N.D.	所有用途

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	Benzene		All uses
65	鹵系碳氫化合物 Halogenated hydrocarbons	N.D.	所有用途 All uses
66	正己烷 n-Hexane	N.D.	清潔劑, 脫酯劑 Cleaning agents, de-ester agent
67	三氧化二銻 Antimony Trioxide	N.D.	阻燃劑 Flame retardant

## 陸、歐洲化學總署公告高度關切物質(SVHC)清單 - REACH 法規

### ECHA announcement List of Highly Concerned Substances (SVHC)

(1) SVHC 第一批清單 (15 項) 於 2008 年 10 月 28 日公佈生效，清單如下：

Substance included in the Candidate List for authorization on 28 October 2008  
and its SVHC properties:

項目 Item.	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
1	蒽 Anthracene	204-371-1	120-12-7	染料、制紙漿的助劑 Dyes, paper pulp additives
2	4,4'-二氨基二苯甲烷 4,4'-Diaminodiphenylmethane	202-294-4	101-77-9	偶氮染料、橡膠和環氧樹脂助劑 Azo dyes, rubber and epoxy resin additives
3	鄰苯二甲酸二丁酯 Dibutyl phthalate (DBP)	201-557-4	84-74-2	增塑劑 Plasticizer
4	二氯化鈷 Cobalt dichloride	231-589-4	7646-79-9	乾燥劑、電鍍、橡膠助劑 Desiccant, electroplating, rubber additives
5	五氧化二砷 Diarsenic pentaoxide	215-116-9	1303-28-2	防腐劑、染料特種玻璃和冶金助劑 Preservatives, special glass dyes and metallurgical additives
6	三氧化二砷，俗稱砒霜 Diarsenic trioxide	215-481-4	1327-53-3	脫色劑、氧化劑、防腐劑、半導體 Bleaching agents, oxidants, preservatives, semiconductors
7	重鉻酸鈉 Sodium dichromate	234-190-3	7789-12-0 10588-01-9	染料、防腐劑、金屬表面處理 Dyes, preservatives, metal surface treatment
8	二甲苯麝香 5-Tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2	香料中定香劑 Spices fixative
9	鄰苯二甲酸二(2-乙基乙醇)酯 (2-ethylhexyl) phthalate (DEHP)	204-211-0	117-81-7	增塑劑 Plasticizer

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10	六溴環十二烷 Hexabromocyclododecane (HBCDD)	247-148-4 221-695-9	25637-99-4 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)	阻燃劑 Flame retardant
11	C10-13 短鏈氯化石蠟 Alkanes,C10-13,chloro(Short chain chlorinated paraffin)	287-476-5	85535-84-8	塑膠增塑劑、阻燃劑、塗料、塗層 Plastic plasticizers, flame retardants, coatings,
12	三丁基氧化錫 · 俗稱丁蠟 Bis (tributyltin) oxide	200-268-0	56-35-9	紡織品、皮革添加劑 Textiles, leather additives
13	砷酸氫鉛 · 砷酸鉛 Lead hydrogen arsenate	232-064-2	7784-40-9	防腐劑、殺蟲劑 Preservatives, insecticides
14	三乙基砷酸鹽 Triethyl arsenate	427-700-2	15606-95-8	增塑劑 Plasticizer
15	鄰苯二甲酸苯基丁酯 Benzyl butyl phthalate (BBP)	201-622-7	85-68-7	防腐劑、殺蟲劑 Preservatives, insecticides

(2)SVHC 第二批清單 ( 13 項 ) 於 2010 年 1 月 13 日公佈 · 清單如下：

Substance included in the Candidate List for authorization on 13 January 2010  
and its SVHC properties:

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
16	2,4-二硝基甲苯 2,4-Dinitrotoluene	204-450-0	121-14-2	用於製作甲苯二異氰酸鹽 ( 酯 ) ( TDI ) · 進而製造聚亞安酯泡沫； 也用於白透明塑膠。 Used in the production of toluene diisocyanate (TDI), and then the manufacture of polyurethane foam; also used for white transparent plastic
17	蒽油 Anthracene oil	292-602-7	90640-80-5	用於製造其它物質 · 如提煉蒽、炭黑 · 也用於炸藥的還原促進劑 · 以及海洋捕撈、防腐。
18	蒽油 · 蔡糊 · 輕油 Anthracene oil, anthracene paste, distn. Lights	295-278-5	91995-17-4	Used in the manufacture of other substances, Such as refining onions, carbon black, Also used in explosives reduction accelerator,
19	蒽油 · 蔡糊 · 蔡餾分 Anthracene oil, anthracene paste, anthracene fraction	295-275-5	91995-15-2	As well as marine fishing, anti-corrosion
20	蒽油 · 含蒽量少 Anthracene oil, anthracene-low	292-604-8	90640-82-7	
21	蒽油 · 蔡糊 Anthracene oil, anthracene paste	292-603-2	90640-81-6	
22	鄰苯二甲酸二異丁酯 Diisobutyl phthalate (DIBP)	201-553-2	84-69-5	增塑劑 Plasticizer
23	高溫煤瀝青 Coal tar pitch, high temperature	266-028-2	65996-93-2	用於工業電極 · 少量用於重度防腐、鋪路、粘土製作 Uses industrial electrodes, a small amount for heavy anti-corrosion,

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				paving, clay production
24	磷酸三(2-氯乙基)酯 Tris(2-chloroethyl)phosphate (TCEP)	204-118-5	115-96-8	阻燃劑·阻燃性增塑劑 Flame retardant, flame retardant plasticizer
25	C.I.顏料黃 34 Lead sulfochromate yellow (C.I. pigment yellow 34)	215-693-7	1344-37-2	色素·用於塑膠、油漆著色 Pigments, used in plastics, paint coloring
26	硫酸鉛鉻鉬紅 (C.I.顏料紅 104) Lead chromate molybdate sulfate red (C.I. pigment red 104)	235-759-9	12656-85-8	
27	鉻酸鉛 Lead chromate	231-846-0	7758-97-6	
28	丙烯醯胺 Acrylamide	201-172-7	79-06-1	生產聚丙烯醯胺的原料 Production of polyacrylamide raw materials

(3)SVHC 第三批清單 (8項) 於 2010年6月18日公佈生效，清單如下：

Substance included in the Candidate List for authorization on 18 June 2010 and its  
SVHC properties:

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
29	三氯乙烯 Trichloroethylene	201-167-4	79-01-6	金屬部件的清潔和除油、粘合劑溶劑、用於氟氯有機化合物生產的中間體 Metal parts cleaning and degreasing, Binder solvent, For organic chlorine compounds Production of intermediates
30	硼酸 Boric acid	233-139-2 234-343-4	10043-35-3 1113-50-1	包括多種用途，如用於多種殺蟲劑和防腐劑、個人護理產品、食品添加劑、玻璃、陶瓷、橡膠、化肥、阻燃劑、油漆、工業油、制動液、焊接產品、沖印 Including a wide range of uses, such as for a variety of pesticides and preservatives, personal care products, food additives, glass, ceramics, rubber, chemical fertilizers, flame retardants, paints, industrial oils, brake fluids, welding products,
31	無水四硼酸鈉 Disodium tetraborate, anhydrous	215-540-4	1330-43-4 12179-04-3 1303-96-4	包括多種用途，如用於玻璃和玻璃纖維、陶瓷、清潔劑、個人護理產品、工業液體、冶金、粘合劑、阻燃劑、農藥、化肥 Including a variety of uses, such as for glass and glass fiber, ceramics, detergents, personal care products, industrial liquids, metallurgy,

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				adhesives, flame retardants, pesticides, fertilizers
32	水合硼酸鈉 Tetraboron disodium heptaoxide, hydrate	12267-73-1	12267-73-1	包括多種用途，如用於玻璃和玻璃纖維、陶瓷、清潔劑、個人護理產品、工業液體、冶金、粘合劑、阻燃劑、農藥、化肥 Including a variety of uses, such as for glass and glass fiber, ceramics, detergents, personal care products, industrial liquids, metallurgy, adhesives, flame retardants, pesticides, fertilizers
33	鉻酸鈉 Sodium chromate	231-889-5	7775/11/3	實驗室（分析試劑）、製造其他個化合物 Laboratory (analytical reagent), the manufacture of other compounds
34	鉻酸鉀 Potassium chromate	232-140-5	7789-00-6	金屬處理和塗層、化學品和試劑製造、紡織品製造、陶瓷著色劑、皮革鞣劑、顏料/油墨製造、實驗室分析試劑、煙火製造 Metal processing and coating, chemical and reagent manufacturing, textile manufacturing, ceramic coloring agents, leather tanning agents, pigment / ink manufacturing, laboratory analysis reagents, Fireworks manufacturing
35	重鉻酸銨 Ammonium dichromate	232-143-1	7789-09-5	氧化劑、實驗室分析試劑、皮革鞣劑、紡織品製造、製造光敏螢幕（陰極射線管）、金屬處理 Oxidizing agents, laboratory analysis reagents, leather tanning agents, textile manufacturing, manufacturing photosensitive screens (cathode ray tubes), metal processing
36	重鉻酸鉀 Potassium dichromate	231-906-6	7778-50-9	鉻金屬製造、金屬處理和塗層、化學品和試劑製造、實驗室分析試劑、玻璃儀器清洗、皮革鞣劑、紡織品製造、光刻、木材處理、緩蝕劑冷卻系統 Chromium metal manufacturing, metal processing and coating, chemical and reagent manufacturing, laboratory analysis reagents, glass instrument cleaning, leather tanning agents, textile manufacturing, lithography, wood processing

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				treatment, corrosion inhibitor cooling system
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(4)SVHC 第四批清單 (8 項) 於 2010 年 12 月 3 日公佈生效，清單如下：

**Substance included in the Candidate List for authorization on 03 December 2010  
and its SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
37	硫酸鈷 Cobalt(II) sulphate	233-334-2	10124-43-3	催化和烘乾，表面處理(如電鍍)、防腐、生產顏料、脫色(在玻璃、陶瓷中)、電池、動物飼料、化肥等 Catalytic and drying, surface treatment (eg electroplating), anticorrosion, pigment production, decolorization (in glass, ceramics), batteries, animal feed, chemical fertilizers
38	硝酸鈷 Cobalt(II) dinitrate	233-402-1	10141-05-6	主要用於製造其他化學品和催化劑。此外，還用於表面處理和電池 Mainly used in the manufacture of other chemicals and catalysts. In addition, also used for surface treatment and battery
39	碳酸鈷 Cobalt(II) carbonate	208-169-4	513-79-1	主要用於製造催化劑，也有少量用於飼料添加劑、製造其他化學品、製造顏料和膠粘劑 Mainly used in the manufacture of catalysts, but also a small amount for feed additives, manufacture of other chemicals, manufacturing paints and adhesives
40	醋酸鈷 Cobalt(II) diacetate	200-755-8	71-48-7	主要用於催化劑，也有少量用於製造其他化學品、表面處理、合金、製造顏料、乾燥、橡膠膠粘劑和飼料添加劑 Mainly used in catalysts, there are a small amount used in the manufacture of other chemicals, surface treatment, alloy, manufacturing pigments, dry, rubber adhesive and feed additives
41	2-甲氧基乙醇 2-Methoxyethanol	203-713-7	109-86-4	主要用作溶劑、化學中間體和燃料添加劑，印染工業用作滲透劑和均染劑，燃料工業用作添加劑，紡織

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				工業用作染色助劑 Mainly used as solvents, Chemical intermediates and fuel additives, Printing and dyeing industry as a penetrant and leveling agent, Fuel industry as additives, Textile industry for dyeing auxiliaries
42	2-乙氧基乙醇 2-Ethoxyethanol	203-804-1	110-80-5	主要用作溶劑、化學中間體，還可用做清漆的塗膜劑、淨化液、染料浴、水溶性顏料和染料溶液、精煉皮革的溶劑 Mainly used as solvents, Chemical intermediates, Can also be used as varnish coating agent, purification solution, dye bath, Water-soluble pigments and dye solutions, Refining leather solvent
43	三氧化鉻 Chromium trioxide	215-607-8	1333-82-0	主要用於金屬表面處理和水生性木材的防腐 Mainly used for metal surface treatment and anti-corrosion of aquatic wood
44	三氧化二鉻及其低聚物產生酸：鉻酸、二鉻酸、鉻酸及二鉻酸的低聚物 Acids generated from chromium trioxide and their oligomers: Chromic acid (鉻酸) Dichromic acid (重鉻酸) Oligomers of chromic acid and dichromic acid (低聚鉻酸)	231-801-5 236-881-5	7738-94-5 13530-68-2	三氧化二鉻主要是以水溶液的形式存在，因此這些物質與三氧化二鉻的使用相同 Chromium trioxide is mainly in the form of aqueous solution, so these substances and the use of chromium oxide the same

**(5)SVHC 第五批清單 ( 7 項 ) 於 2011 年 6 月 20 日公佈生效，清單如下：**

**Substance included in the Candidate List for authorization on 20 June 2011 and its SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
45	鄰苯二甲酸二 (C6-8支鏈與直鏈) 烷基酯 · 富C7鏈 (DIHP) 1,2-Benzenedicarboxylic acid,di-C6-8-branched alkyl esters, C7-rich(DIHP)	276-158-1	71888-89-6	塑膠、印刷油墨、密封劑和膠粘劑中的增塑劑 Plastics, printing inks, Sealants and adhesives plasticizer
46	鄰苯二甲酸二 (C7-11 支鏈與直鏈) 烷基酯 1 · 2-Benzenedicarboxylic acid · di-C7-11-branched and linear alkyl esters(DHNUP)	271-084-6	68515-42-4	塑膠、密封劑和膠粘劑中的增塑劑 Plastics, printing inks, Sealants and adhesives plasticizer
47	1,2,3-三氯丙烷 1,2,3-trichloropropane	202-486-1	96-18-4	生產有機氯溶劑的中間體；聚合物和橡膠生產中的交聯劑等 The production of organic chlorine

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				solvent intermediates; polymer and rubber production of cross-linking agent
48	N-甲基吡咯烷酮 1-methyl-2-pyrrolidone(NMP)	212-828-1	872-50-4	PVC 紡紗劑；金屬和木材塗層；電子原件清洗劑等 PVC spinning agent; metal and wood coating; electronic components cleaning agent
49	乙酸-2-乙氧基乙酯 2-ethoxyethyl acetate	203-839-2	111-15-9	塗料、油漆中的溶劑；化工中間體；塑膠和橡膠塗料 A solvent in a paint or paint; Chemical intermediates; Plastic and rubber coatings
50	肼 Hydrazine	206-114-9 302-01-2	7803-57-8 302-01-2	合成用於化學發泡劑、油漆、油墨、染料的肼類衍生物；聚合塗料和膠黏劑的單體；在玻璃和塑膠上沉積金屬過程中的還原劑 Synthetic for use in chemical blowing agents Paints, inks, dyes hydrazine derivatives Polymer coatings and adhesives monomer Reducing agents in the deposition of metals on glass and plastic
51	鉻酸鈦 Strontium chromate	232-142-6	7789-06-2	電鍍鉻；顏料和金屬緩蝕劑；PVC 著色劑 Electroplating chromium; pigment and metal corrosion inhibitor; PVC coloring agent

(6)SVHC 第六批清單 ( 20 項 ) 於 2011 年 12 月 19 日公佈生效，清單如下：

Substance included in the Candidate List for authorization on 19 December 2011

and its SVHC properties:

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
52	1 · 2-二氯乙烷 1 · 2-Dichloroethane	203-458-1	107-06-2	橡膠、膠狀物質和樹脂的溶劑；油漆、塗料、膠粘劑、清漆、肥皂和清洗劑原料；皮革和金屬清洗劑 Rubber, colloidal substances and resins; paints, coatings, adhesives, varnishes, soaps and detergents; leather and metal cleaners
53	4,4'-二氨基-3,3'-二氟二苯甲烷 2,2'-dichloro-4,4'- methylenedianiline(MOCA)	202-918-9	101-14-4	聚氨酯合成橡膠的助劑和原料；膠水、膠粘劑和木製品的密封劑 Polyurethane synthetic rubber additives and raw materials; glue, adhesives and wood products sealant

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54	2-甲氧基苯胺 2-Methoxyaniline	201-963-1	90-04-0	偶氮染料、顏料和香水中間體；墨水、蠟筆、紙、聚合物和鋁箔原料 Azo dyes, pigments and perfume intermediates; inks, crayons, paper, polymers and aluminum foil raw materials
55	對特辛基苯酚 4-tert-Octylphenol	205-426-2	140-66-9	表面活性劑、硫化劑和油漆中間體；膠粘劑、聚合物單體；印染助劑 Surfactants, vulcanizing agents and paint intermediates; adhesives, polymer monomers; printing and dyeing auxiliaries
56	二乙二醇二甲醚 Bis ( 2-methoxyethyl ) ether	203-924-4	111-96-6	電池；塑膠和橡膠分散劑；密封劑、膠粘劑、油漆等 Batteries; plastic and rubber dispersants; sealants, adhesives, paints
57	甲醛與苯胺的低聚物 Formaldehyde · oligomeric reaction products with aniline ( technical MDA)	500-036-1	25214-70-4	化工原料；環氧樹脂固化劑；高性能聚合物材料 Chemical raw materials; epoxy curing agent; high-performance polymer materials
58	酚酞 Phenolphthalein	201-004-7	77-09-8	酸鹼指示劑；墨水、染料等 Acid-base indicator; ink, dyes
59	鄰苯二甲酸二甲氧基乙酯 Bis ( 2-methoxyethyl ) phthalate	204-212-6	117-82-8	聚合物的塑化劑；膠粘劑、油漆、印刷油墨和清漆 Plasticizers for polymers; adhesives, paints, printing inks and varnishes
60	N,N-二甲基乙醯胺 N,N-dimethylacetamide ( DMAC )	204-826-4	127-19-5	聚合物溶劑；脫漆劑、油墨去除劑、塗料和膠粘劑原料 Polymer solvent; paint remover, ink remover, paint and adhesive raw materials
61	砷酸 Arsenic acid*	231-901-9	7778-39-4	生產電路板的銅箔；玻璃製造；木材防腐；棉織品的乾燥劑等 The production of circuit boards of copper foil; glass manufacturing; wood preservative; cotton fabric desiccant
62	砷酸鈣 Calcium arsenate*	231-904-5	7778-44-1	冶金精煉 Metallurgical refining
63	砷酸鉛 Trilead diarsenate*	222-979-5	3687-31-8	殺蟲劑；有色金屬冶煉 Pesticides; non-ferrous metal smelting
64	疊氮化鉛 Lead diazide*	236-542-1	13424-46-9	雷管引爆劑；煙火裝置引爆劑 Detonator detonator; pyrotechnic device detonating agent
65	收斂酸鉛 Lead styphnate*	239-290-0	15245-44-0	煙火彈藥等 Fireworks and ammunition

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66	苦味酸鉛 Lead dipicrate*	229-335-2	6477-64-1	炸藥 Explosives
67	鉻酸鉻 Dichromium tris ( chromate )	246-356-2	24613-89-6	防腐漆；紗媒染過程催化劑 Preservative paint; yarn mordant process catalyst
68	氫氧化鉻酸鋅 Pentazinc chromate octahydroxide*	256-418-0	49663-84-5	底漆防腐蝕劑；底漆清洗 Primer anti-corrosion agent; primer cleaning
69	氫氧化鉻酸鋅鉀 Potassium hydroxyoctaoxidizedichromate*	234-329-8	11103-86-9	防腐顏料；塗料和密封劑原理 Anticorrosive pigments; Principles of coatings and sealants
70	矽酸鋁·耐火陶瓷纖維 Aluminosilicate Refractory Ceramic Fibres ( RCF)*	650-017-00-8*	--	工業熔爐、管線、管道和線纜的隔熱纖維；金屬的強化 Industrial furnaces, pipes, pipes and cables of the insulation fiber; metal reinforcement
71	氧化鋯矽酸·耐火陶瓷纖維 Zirconia Aluminosilicate Refractory Ceramic Fibres ( Zr-RCF)*	650-017-00-8*	--	

(7)SVHC 第七批清單 ( 13 項 ) 於 2012 年 6 月 18 日公佈生效，清單如下：

Substance included in the Candidate List for authorization on 18 June 2012 and its SVHC properties:

項目 Item.	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
72	三乙二醇二甲醚 ( TEGDME) 1,2-bis(2-methoxyethoxy)ethane	203-977-3	112-49-2	溶劑、制程化學品 Solvents, process chemicals
73	乙二醇二甲醚 ( EGDME) 1,2-dimethoxyethane;ethylene glycol dimethyl ether	203-794-9	110-71-4	電池、溶劑、制程化學品 Battery, solvents, process chemicals
74	4,4'-二(二甲氨基)-4"-甲氨基三苯甲醇 4,4'-bis(dimethylamino)-4"- (methylamino)trityl alcohol	209-218-2	561-41-1	染料、油漆、顏料、墨水 Dyes, paints, pigments, inks
75	4,4'-二(二甲氨基)二苯甲酮 ( 米氏酮 ) 4,4'-bis(dimethylamino) benzophenone(Michler's ketone)	202-027-5	90-94-8	染料、顏料、PCB 板、聚合物 Dyes, pigments, PCB board, polymer
76	C.I.鹼性紫 3 C.I.Basic Violet 3	208-953-6	548-62-9	紡織品、塑膠、油漆、油墨 Textiles, plastics, paint, ink
77	C.I.鹼性藍 26 C.I.Basic Blue 26	219-943-6	2580-56-5	油墨、染料、油漆、顏料、墨水 Ink, dyes, paints, pigments, inks
78	三氧化二硼 Diboron trioxide	215-125-8	1303-86-2	玻璃及玻璃纖維、電子產品阻燃劑、膠粘劑、油墨、油漆、塗料、殺菌劑、殺蟲劑等 Glass and glass fiber, electronic products, flame retardants, adhesives, inks, paints, coatings, fungicides, pesticides
79	甲醯胺 Formamide	200-842-0	75-12-7	中間體、增塑劑、合成皮革、油墨、溶劑等 Intermediates, plasticizers, synthetic

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				leathers, inks, solvents
80	甲基磺酸鉛 Lead(II)bis(methanesulfonate)*	401-750-5	17570-76-2	電鍍 plating
81	N,N,N',N'-四甲基-4,4'-二氨基二苯甲烷 (米氏城) N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	染料、顏料 Dyes, pigments
82	1,3,5-三(環氧乙基甲基)-1,3,5-三嗪-2,4,6(1H,3H,5H)-三酮 (TGIC) 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	219-514-3	2451-62-9	塑膠穩定劑、PCB油墨、電子產品 塗層、電絕緣材料、樹脂固化劑等 Plastic stabilizer, PCB ink, electronic product coating, electrical insulation materials, resin curing agent
83	C.I. 溶劑藍 4 C.I. Solvent Blue 4	229-851-8	6786-83-0	染料、油漆、顏料、墨水 Dyes, paints, pigments, inks
84	1,3,5-三-[(2S 和 2R)-2,3-環氧丙基]-1,3,5-三嗪-2,4,6-(1H,3H,5H)-三酮 β-TGIC(1,3,5-tris[(2S and2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	423-400-0	59653-74-6	塑膠穩定劑、PCB油墨、電子產品 塗層、電絕緣材料、樹脂固化劑等 Plastic stabilizer, PCB ink, electronic product coating, electrical insulation materials, resin curing agent

**(8)SVHC 第八批清單 ( 54 項 ) 於 2012 年 12 月 17 日正式公佈，清單如下：**

**Substance included in the Candidate List for authorization on 17 December 2012  
and its SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
85	二鹽基鄰苯二甲酸鉛 [Phthalato(2-)]dioxitrilead	273-688-5	69011-06-9	塑膠製品 Plastic Products
86	1,2-苯二酸-二(支鏈與直鏈)戊基酯 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0	增塑劑 Plasticizer
87	乙二醇二乙醚 1,2-Diethoxyethane	211-076-1	629-14-1	油漆、油墨、中間體 Paints, inks, intermediates
88	1-溴丙烷 1-bromopropane	203-445-0	106-94-5	藥物、染料、香料、中間體 Drugs, dyes, spices, intermediates
89	3-乙基-2-甲基-2-(3-甲基丁基)噁唑烷 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2	橡膠製品 rubber products
90	對特辛基苯酚乙氧基醚 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	/	/	油漆、油墨、紙張、膠水、紡織品 Paint, ink, paper, glue, textiles
91	4,4'-二氨基-3,3'-二甲基二苯甲烷 4,4'-methylenedi-o-toluidine	212-658-8	838-88-0	絕緣材料、聚氨酯粘合劑、環氧樹 脂固化劑 Insulation materials, polyurethane adhesives, epoxy resin curing agent
92	4,4'-二氨基二苯醚 4,4'-oxydianiline	202-977-0	101-80-4	染料中間體、樹脂合成 Dye intermediates, resin synthesis
93	4-氨基偶氮苯 4-Aminoazobenzene	200-453-6	60-09-3	染料中間體 Dye intermediates
94	2,4-二氨基甲苯 4-methyl-m-phenylenediamine	202-453-1	95-80-7	染料、醫藥中間體及其他有機合成 Dyes, pharmaceutical intermediates

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				and other organic synthesis
95	4-壬基 ( 支鏈與直鏈 ) 苯酚 4-Nonylphenol, branched and linear	/	/	油漆、油墨、紙張、膠水、橡膠製品 Paint, ink, paper, glue, rubber products
96	2-甲氧基-5-甲基苯胺 6-methoxy-m-toluidine	204-419-1	120-71-8	中間體、燃料合成 Intermediates, fuel synthesis
97	碱式乙酸鉛 Acetic acid, lead salt, basic	257-175-3	51404-69-4	油漆、塗層、脫漆劑、稀釋劑 Paint, coating, paint remover, thinner
98	4-氨基聯苯 Biphenyl-4-ylamine	202-177-1	92-67-1	染料和農藥中間體 Dyes and pesticide intermediates
99	十溴聯苯醚 Bis(pentabromophenyl) ether (DecaBDE)	214-604-9	1163-19-5	阻燃劑 Flame retardant
100	偶氮二甲醯胺 C <sub>2</sub> C'-azodi(formamide)	204-650-8	123-77-3	聚合物、膠水、墨水 Polymer, glue, ink
101	二丁基二氯化錫 Dibutyltin dichloride	211-670-0	683-18-1	紡織品和塑膠、橡膠製品 Textiles and plastics, rubber products
102	硫酸二乙酯 Diethyl sulphate	200-589-6	64-67-5	生產染料、聚合物 Production of dyes, polymers
103	鄰苯二甲酸二異戊酯 Diisopentylphthalate ( DIPP )	210-088-4	605-50-5	增塑劑 Plasticizer
104	硫酸二甲酯 Dimethyl sulphate	201-058-1	77-78-1	生產染料、聚合物 Production of dyes, polymers
105	地樂酚 Dinoseb	201-861-7	88-85-7	塑膠製品 Plastic Products
106	雙(十八酸基)二氧代三鉛 Dioxobis(stearato)trilead	235-702-8	12578-12-0	塑膠製品 Plastic Products
107	C16-18-脂肪酸鉛 Fatty acids, C16-18, lead salts	292-966-7	91031-62-8	塑膠製品 Plastic Products
108	呋喃 Furan	203-727-3	110-00-9	溶劑、有機合成 Solvents, organic synthesis
109	全氟十一烷酸 Henicosfluoroundecanoic acid	218-165-4	2058-94-8	油漆、紙張、紡織品、皮革等 Paint, paper, textiles, leather
110	全氟十四烷酸 Heptacosafluorotetradecanoic acid	206-803-4	376-06-7	油漆、紙張、紡織品、皮革等 Paint, paper, textiles, leather
111	環己烷-1,2-二羧酸酐 Hexahydro-2-benzofuran-1,3-dione · 順式-環己烷-1,2-二羧酸酐 cis-cyclohexane-1,2-dicarboxylic anhydride · 反式-環己烷-1,2-二羧酸酐 trans-cyclohexane-1,2-dicarboxylic anhydride	201-604-9 236-086-3 238-009-9	85-42-7 13149-00-3 14166-21-3	中間體、樹脂改性劑和環氧樹脂固化劑 An intermediate, a resin modifier and an epoxy resin curing agent
112	甲基六氫鄰苯二甲酯酐 Hexahydromethylphthalic anhydride · 4-甲基六氫鄰苯二甲酯酐 Hexahydro-4-methylphthalic anhydride · 1-甲基六氫鄰苯二甲酯酐 Hexahydro-1-methylphthalic anhydride ·	247-094-1 243-072-0 256-356-4 260-566-1	25550-51-0 19438-60-9 48122-14-1 57110-29-9	生產樹脂、橡膠、聚合物 Production of resins, rubber, polymers

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	3-甲基六氫鄰苯二甲酯酐 Hexahydro-3-methylphthalic anhydride			
113	四氟硼酸鉛 Lead bis(tetrafluoroborate)	237-486-0	13814-96-5	電鍍、焊接、分析試劑 Electroplating, welding, analysis reagents
114	氨基氰鉛鹽 Lead cyanamidate	244-073-9	20837-86-9	防鏽 Antirust
115	硝酸鉛 Lead dinitrate	233-245-9	10099-74-8	染料、皮革、顏料 Dyes, leather, pigments
116	一氧化鉛 Lead oxide (lead monoxide)	215-267-0	1317-36-8	玻璃製品、陶瓷、顏料、橡膠 Glass products, ceramics, pigments, rubber
117	城式硫酸鉛 lead oxide sulphate	234-853-7	12036-76-9	塑膠製品 Plastic Products
118	四氧化三鉛 Lead tetroxide	215-235-6	1314-41-6	玻璃製品、陶瓷、顏料、橡膠 Glass products, ceramics, pigments, rubber
119	鈦酸鉛 Lead titanium trioxide	235-038-9	12060-00-3	半導體、塗料、電子陶瓷濾波器 Semiconductors, coatings, electronic ceramic filters
120	鈦酸鉛鋯 Lead Titanium Zirconium Oxide	235-727-4	12626-81-2	光學產品、電子產品、電子陶瓷零件 Optical products, electronic products, electronic ceramic parts
121	甲氧基乙酸 Methoxyacetic acid	210-894-6	625-45-6	中間體 An intermediate
122	N,N-二甲基甲醯胺 N,N-dimethylformamide; dimethyl formamide	200-679-5	68-12-2	皮革、印刷電路板 Leather, printed circuit board
123	N-甲基乙醯胺 N-methylacetamide	201-182-6	79-16-3	中間體 An intermediate
124	鄰苯二甲酸正戊基異戊基酯 N-pentyl-isopentylphthalate	/	776297-69-9	增塑劑 Plasticizer
125	鄰-氨基偶氮甲苯 o-aminoazotoluene	202-591-2	97-56-3	染料中間體 Dye intermediates
126	2-氨基甲苯 o-Toluidine	202-429-0	95-53-4	染料中間體 Dye intermediates
127	全氟十三烷酸 Pentacosafuorotridecanoic acid	276-745-2	72629-94-8	油漆、紙張、紡織品、皮革等 Paint, paper, textiles, leather
128	硫酸四氧化五鉛 Pentalead tetraoxide sulphate	235-067-7	12065-90-6	塑膠製品、電池 Plastic products, batteries
129	1,2-環氧丙烷 Propylene oxide	200-879-2	75-56-9	中間體 An intermediate
130	鉛錫黃 Pyrochlore, antimony lead yellow	232-382-1	8012-00-8	油漆、塗層、玻璃陶瓷製品 Paints, coatings, glass-ceramic products
131	摻雜鉛的矽酸鋇 Silicic acid, barium salt, lead-doped	272-271-5	68574-75-8	玻璃製品 Glass product

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132	矽酸鉛 Silicic acid, lead salt	234-363-3	11120-22-2	玻璃陶瓷製品 glass-ceramic products
133	二堿式亞硫酸鉛 Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7	玻璃陶瓷製品 glass-ceramic products
134	四乙基鉛 Tetraethyllead	201-075-4	78-00-2	燃油增加劑 Fuel additives
135	硫酸三氧化四鉛 Tetralead trioxide sulphate	235-380-9	12202-17-4	顏料、塑膠製品、電池 Pigments, plastic products, batteries
136	全氟十二烷酸 Tricosafluorododecanoic acid	206-203-2	307-55-1	油漆、紙張、紡織品、皮革等 Paint, paper, textiles, leather
137	堿式碳酸鉛 trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6	油漆、塗料、油墨、塑膠製品 Paints, coatings, inks, plastic products
138	二堿式亞磷酸鉛 Trilead dioxide phosphonate	235-252-2	12141-20-7	塑膠的穩定劑 Plastic stabilizer

(9)SVHC 第九批清單 ( 6 項 ) 於 2013 年 6 月 20 日正式公佈，清單如下：

Substance included in the Candidate List for authorization on 20 June 2013 and its SVHC properties:

項目 Item No.	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
139	鎘 Cadmium	231-152-8	7440-43-9	電池電極；防腐蝕塗層；催化劑、合金和太陽能電池；顏料；塑膠和聚合物的穩定劑 Battery electrode; Anti - corrosion coating; catalyst, Alloys and solar cells; pigment; Plastic and polymer stabilizers
140	氧化鎘 Cadmium oxide	215-146-2	1306-19-0	電池電極；防腐蝕塗層；玻璃、合金和光電子器件；催化劑、顏料和陶瓷釉料；增強聚合物的抗熱性 Battery electrode; Anti - corrosion coating; glass, Alloys and optoelectronic devices; catalyst, Pigments and ceramic glazes; Enhance the heat resistance of polymers
141	十五代氟辛酸銨鹽 Ammonium pentadecafluoroctanoate(APFO)	223-320-4	3825-26-1	含氟聚合物和氟橡膠的生產；不粘廚具生產中的乳化劑 Production of fluoropolymers and fluoroelastomers; Non-stick kitchen utensils in the production of emulsifiers
142	全氟辛酸 Pentadecafluoroctanoic acid ( PFOA )	206-397-9	335-67-1	含氟聚合物和氟橡膠；不粘廚具生產中的乳化劑 Production of fluoropolymers and

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				fluoroelastomers; Non-stick kitchen utensils in the production of emulsifiers
143	鄰苯二甲酸二正戊酯 Dipentyl phthalate(DPP)	205-017-9	131-18-0	PVC 中的增塑劑 PVC in the plasticizer
144	乙氧基化壬基酚 ( 分支的或線性的 ) ( 包括含有 9 個碳烷基鏈的所有直鏈和支鏈的結構 ) 4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	—	—	採礦；洗滌劑；油漆、塗料和清漆；皮革和紡織品加工 Mining; detergents; paints, coatings and varnishes; leather and textile processing

(10)SVHC 第十批清單 ( 7 項 ) 於 2013 年 12 月 16 日正式公佈，清單如下：

Substance included in the Candidate List for authorization on 16 December 2013 and its SVHC properties:

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
145	硫化鎘 Cadmium sulphide	215-147-8	1306-23-6	用作半導體材料、發光材料以及搪瓷、玻璃、陶瓷、塑膠、油漆著色 Used as a semiconductor material, Luminescent materials and enamel, Glass, ceramics, plastics, paint coloring
146	鄰苯二甲酸二己酯 (DHXP)	201-559-5	84-75-3	用於樹脂合成,用作韌化劑 For resin synthesis, as a toughening agent
147	CI 直接紅 28 Disodium ,3'-[ [1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate)(C.I. Direct Red 28)	209-358-4	573-58-0	曾廣泛用於棉、粘膠的染色·用作吸附指示劑·用於測定鹵化物、硫氰酸鹽和鋅等·用作薄層色譜法測定硫代磷酸鹽除草劑的顯色劑·還用作生物染色劑。 Has been widely used in cotton, viscose dyeing. As an adsorption indicator, For the determination of halide, thiocyanate and zinc and so on. Used as thin layer chromatography for the determination of thiophosphate herbicides. Also used as a biological stain.
148	CI 直接黑 38 Disodium 4-amino-3-[ [4'-(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	217-710-3	1937-37-7	主要用於棉、麻、粘膠等纖維素纖維和的染色·也可用於蠶絲、尼龍及其混紡織物的染色·還可用於皮革、生物和木材的染色、塑膠的著色及作為赤色墨水的原料等。 Mainly used for cotton, hemp,

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				viscose and other cellulose fibers woven and dyeing, Can also be used for silk, Nylon and its blended fabric dyeing, Can also be used for leather, Biological and wood dyeing, Plastic coloring and as a raw material for red ink
149	1,2 亞乙基硫脲 Imidazolidine-2-thione (2-imidazoline-2-thiol)	202-506-9	96-45-7	用作橡膠促進劑、鍍銅光亮劑 Used as a rubber accelerator, copper brightener
150	醋酸鉛(II) Lead di(acetate)	206-104-4	301-04-2	主要用於生產硼酸鉛、硬脂酸鉛等鉛鹽的原料。在顏料工業醋酸鉛同紅礬鈉反應，是制取鉻黃（即鉻酸鉛）的基本原料。在紡織工業中，用做蓬帆布配製鉛皂防水的原料。在電鍍工業中，是氯化鍍銅的發光劑。也是皮毛行業染色助劑。 Mainly used in the production of lead borate, Lead stearate lead salt and other raw materials. Lead in the paint industry with the reaction of sodium dichromate, Is the preparation of chromium yellow (ie, lead chromate) of the basic raw materials. In the textile industry, Punta canvas used lead soap formulated waterproof materials. In the electroplating industry, Copper cyanide is a light emitting agent. Fur industry also dyeing auxiliaries
151	磷酸三(二甲苯)酯 Trixylyl phosphate	246-677-8	25155-23-1	用作增塑劑 Used as a plasticizer

(11)SVHC 第十一批清單 (4 項) 於 2014 年 6 月 16 日正式公佈，清單如下：

Substance included in the Candidate List for authorization on 16 June 2014 and its SVHC properties:

項目 Item.	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
152	鄰苯二甲酸二己酯(支鏈和直鏈) 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4	塑化劑 Plasticizers
153	過硼酸鈉 Sodium perborate; perboric acid, sodium salt	239-172-9; 234-390-0	-	漂白劑, 清潔劑, 化粧品 Bleach, cleaning agents, cosmetics
154	過氧化硼酸鈉 Sodium peroxometaborate	231-556-4	7632-04-4	漂白劑, 清潔劑 Bleach, cleaning agents
155	氯化鎘 Cadmium chloride	233-296-7	10108-64-2	潤滑劑, 殺菌劑, 合成鎘化合物之 原料 Lubricants, fungicides, synthetic

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				cadmium compounds of raw materials
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**(12)SVHC 第十二批清單 ( 6 項 ) 於 2014 年 12 月 17 日正式公佈，清單如下：**

**Substance included in the Candidate List for authorization on 17 December 2014 and its SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
156	氟化鎘 Cadmium fluoride	232-222-0	7790-79-6	電器產品生產流程使用 Electrical products production process use
157	硫化鎘 Cadmium sulphate	233-331-6	10124-36-4; 31119-53-6	電池，電極 Batteries, electrodes
158	2-[2'-羥基-3',5'-二-叔-丁基苯基]-苯並三唑 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7	塑膠, PU 與橡膠的 UV 安定劑, 用於塗料的配方 Plastics, PU and rubber UV stabilizer, for the coating formulations
159	2-(2'-羥基-3',5'-二-叔-戊基苯基)苯並三唑 2-(2H-benzotriazol-2-yl)-4,6-diterpentylphenol (UV-328)	247-384-8	25973-55-1	塑膠, PU 與橡膠的 UV 安定劑, 用於塗料的配方 Plastics, PU and rubber UV stabilizer, for the coating formulations
160	二正辛基-双 ( 2-乙基己基酰基乙酸酯 ) 錫 2-ethylhexyl 10-ethyl-4,4-diethyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1	PVC 熱安定劑 PVC thermal stability agent
161	二正辛基-双 ( 2-乙基己基酰基乙酸酯 ) 錫和單辛基-三(2-乙基己基酰基乙酸酯)錫的反應物 Reaction mass of 2-ethylhexyl 10-ethyl-4,4-diethyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	-	PVC 熱安定劑 PVC thermal stability agent

**(13)SVHC 第十三批清單 ( 2 項 ) 於 2015 年 06 月 15 日正式公佈，清單如下：**

**Substance included in the Candidate List for authorization on 15 June 2015 and its SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
162	鄰苯二甲酸二 ( C6-C6 ) 烷基酯：(癸基・己基・辛基)酯與 1 · 2-鄰苯二甲酸的複合物且鄰苯二甲酸二己酯含量 $\geq 0.3\%$ 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate	271-094-0 272-013-1	68515-51-5 68648-93-1	塑化劑、潤滑劑 Plasticizers, lubricants

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163	[1]為卡拉花醛，[2]為卡拉花醛的一種同分異構化合物 5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]	-	-	香料原料 Spices raw materials
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**(14)SVHC 第十四批清單 ( 5 項 ) 於 2015 年 12 月 17 日正式公佈，清單如下：**

**Substances included in the Candidate List for authorization on 17 December 2015 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
164	硝基苯 Nitrobenzene	202-716-0	98-95-3	製造苯胺 Manufacture of other substances
165	2,4-二-叔丁基-6-(5-氯代苯并三唑-2-基)苯酚 2,4-Di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8	3864-99-1	汽車的 UV 安定劑，工業木頭塗層，橡膠，塑膠，化妝品 UV-protection agents in coatings, plastics, rubber and cosmetics
166	2-(2H-苯並三唑-2-基)-4-(叔丁基)-6-(仲丁基)苯酚 2-(2H-Benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	253-037-1	36437-37-3	汽車的 UV 安定劑，工業木頭塗層，橡膠，塑膠，化妝品 UV-protection agents in coatings, plastics, rubber and cosmetics
167	1,3-丙烷磺內酯 1,3-Propanesultone	214-317-9	1120-71-4	聚氨酯橡膠分散的中間體，照相以及 x 光的膠片，鋰離子電池的電解液 Electrolyte fluid of lithium ion batteries
168	全氟壬酸及其鈉鹽和銨鹽 Perfluorononan-1-oic-acid and its sodium and ammonium salts	206-801-3	375-95-1 21049-39-8 4149-60-4	LCD，清潔及防水試劑，滅火器表面活性劑，潤滑添加劑，製造含氟聚合物 Processing aid for fluoropolymer manufacture/lubricating oil additive/surfactant for fire extinguishers/cleaning agent/textile antifouling finishing agent/polishing surfactant/waterproofing agents and in liquid crystal display panels

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(15)SVHC 第十五批清單 (1 項) 於 2016 年 06 月 20 日正式公佈，清單如下：

**Substance included in the Candidate List for authorization on 20 June 2016 and its SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
169	苯並[def]屈 (苯並[a]芘) Benzo[def]chrysene(Benzo[a]pyrene)	200-028-5	50-32-8	通常非刻意製造，可能是物質中的成分或是雜質。 Normally not manufactured intentionally but may occur as a constituent or impurity in other substances.

(16)SVHC 第十六批清單 (4 項) 於 2016 年 12 月 19 日正式公佈，清單如下：

**Substances included in the Candidate List for authorization on 19 December 2016 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
170	雙酚 A 4,4'-isopropylidenediphenol (bisphenol A)	201-245-8	80-05-7	用於 PC 聚合物、環氧樹脂的硬化劑、PVC 抗氧化劑與熱感紙。 Manufacture of polycarbonate, as a hardener for epoxy resins, as an anti-oxidant for processing PVC and in thermal paper production.
171	4-庚基苯酚, 支鏈及直鏈包括含有 7 個碳烷基鏈的所有獨立的同分異構體和所有含有線性或分支 7 個碳烷基鏈的 UVCB 物質 4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	-	內分泌系統干擾 Due to its endocrine-disrupting properties for the environment.
172	十九氟癸酸及其鈉和銨鹽 Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	206-400-3 221-470-5	3108-42-7 335-76-2 3830-45-3	生殖毒性和長期生物累積毒性 Due to their toxic for reproduction and persistent, bioaccumulative and toxic (PBT) properties
173	對(1,1-二甲基丙基)苯酚 p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6	內分泌系統干擾 Due to its endocrine-disrupting properties for the environment.

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(17)SVHC 第十七批清單 (1 項) 於 2017 年 07 月 14 日正式公佈，清單如下：

**Substances included in the Candidate List for authorization on 14 July 2017 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
174	全氟己基磺酸及其鹽類 Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	206-587-1	355-46-4	金屬電鍍工業、航空液壓油、半導體產業、防水表面處理劑等 May be used as a plasticiser, lubricant, surfactant, wetting agent, corrosion inhibitor and in fire-fighting foams.

(18)SVHC 第十八批清單 (7 項) 於 2018 年 01 月 15 日正式公佈，清單如下：

**Substances included in the Candidate List for authorization on 15 January 2018 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
175	苯並[a]菲 Chrysene	205-923-4	218-01-9	通常非有意才產生，而是作為其他物質中的成分或雜質。 Normally not produced intentionally but rather occurs as a constituent or impurity in other substances.
176	苯並[a]蒽 Benz[a] anthracene	200-280-6	56-55-3	通常非有意才產生，而是作為其他物質中的成分或雜質。 Normally not produced intentionally but rather occurs as a constituent or impurity in other substances.
177	硝酸銻 Cadmium nitrate	233-710-6	10325-94-7	用於實驗室化學品和生產玻璃、瓷器和陶瓷製品。 Used for the manufacture of glass, porcelain and ceramic products and in laboratory chemicals.
178	氫氧化銻 Cadmium hydroxide	244-168-5	21041-95-2	用於實驗室化學品和生產電氣、電子和光學設備。 Used for the manufacture of electrical, electronic and optical equipment and in laboratory chemicals.
179	碳酸銻 Cadmium carbonate	208-168-9	513-78-0	用於 pH 調整劑和水處理產品、實驗室化學品、化妝品和個人護理產品等產品中。

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				Used as a pH regulator and in water treatment products, laboratory chemicals, cosmetics and personal care products.
180	十氯三環十八碳二烯 (包含任何順式與反式同分異構物或其他組成) Dechlorane plus (including any of its individual anti-and syn-isomers or any combination thereof)	-	13560-89-9 135821-74-8 135821-03-3	用作非增塑阻燃劑、用於密封劑以及粘合劑中的添加物。 Used as a non-plasticising flame retardant, used in adhesives and sealants and in binding agents.
181	1,3,4-噻二唑-2,5-二硫酮、甲醛與支鏈和直鏈 4-庚基苯酚的反應產物 (含有支鏈和直鏈 4-庚基苯酚重量比大於或等於 0.1%) Reaction products of 1,3,4-thiadiazolidine - 2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	-	-	用於潤滑劑和潤滑油中的潤滑添加劑。 Used as a lubricant additive in lubricants and greases.

(19)SVHC 第十九批清單 ( 10 項 ) 於 2018 年 06 月 27 日正式公佈，清單如下：

Substances included in the Candidate List for authorization on 27 June 2018 and their SVHC properties:

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
182	八甲基環四矽氧烷 Octamethylcyclotetrasiloxane (D4)	209-136-7	556-67-2	化妝品和個人護理產品、拋光劑和蠟、洗滌和清潔產品以及紡織品處理劑和染料。
183	十甲基環五矽氧烷 Decamethylcyclopentasiloxane (D5)	208-764-9	541-02-6	Used in washing and cleaning products, polishes and waxes, cosmetics and personal care products, textile treatment products and dyes.
184	十二甲基環六矽氧烷 Dodecamethylcyclohexasiloxane (D6)	208-762-8	540-97-6	化妝品和個人護理產品、拋光劑和蠟、洗滌和清潔產品以及紡織品處理劑和染料。
185	鉛 Lead	231-100-4	7439-92-1	用於金屬、焊接和焊錫產品、金屬表面處理產品和聚合物。 Used in metals, welding and soldering products, metal surface treatment products, and polymers.
186	八硼酸二鈉 Disodium octaborate	234-541-0	12008-41-2	玻璃、油漆和塗料、纖維素絕緣材料、水泥、肥料。 Used in anti-freeze products, heat transfer fluids, lubricants and greases, and washing and cleaning products.
187	苯并[g,h,i]芘 Benzo[ghi]perylene	205-883-8	191-24-2	通常不是有意生產，而是存在於其他物質的成分或雜質。 Normally not produced intentionally but rather occurs as a constituent or impurity in other substances.
188	乙二胺 Ethylenediamine (EDA)	203-468-6	107-15-3	用於粘合劑與密封劑、塗料產品、填充料、油灰、石膏、造型粘土、

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				pH 調節劑和水處理產品。 Used in adhesives and sealants, coating products, fillers, putties, plasters, modelling clay, pH regulators and water treatment products.
189	氫化三聯苯 Terphenyl hydrogenated	262-967-7	61788-32-7	在塑料中添加劑、塗料/油墨成分、粘合劑/密封劑成分。 Used as a plastic additive, solvent, in coatings/inks, in adhesives and sealants, and heat transfer fluids.
190	偏苯三酸酐 Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (trimellitic anhydride; TMA)	209-008-0	552-30-7	作為優良的耐熱性、耐候性增塑劑的原料、環氧樹脂的固化劑。 Used in the manufacture of esters and polymers.
191	鄰苯二甲酸二環己酯 Dicyclohexyl phthalate (DCHP)	201-545-9	84-61-7	可塑劑、界面活性劑。 Used in plastisol, PVC, rubber and plastic articles. A further use is also as a phlegmatiser and dispersing agent for formulations of organic peroxides.

(20)SVHC 第 20 批清單 (6 項) 於 2018 年 09 月 6 日正式公佈，清單如下：

**Substances included in the Candidate List for authorization on 6 September 2018 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
192	1,7,7-三甲基-3-(苯亞甲基)雙環[2.2.1]庚烷-2-酮 (3-苯亞甲基樟腦) 1,7,7-trimethyl-3-(phenylmethylene) bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	239-139-9	15087-24-8	用於防曬化妝品的 UV 吸收劑、紡織品的抗 UV 添加劑。 Used in cosmetics as UV filter, also in household products and textiles for UV protection.
193	2,2-雙(4'-羥基苯基)-4-甲基戊烷 2,2-bis(4'-hydroxyphenyl)-4-methylpentane	401-720-1	203-772-9	用於熱感紙・BPA 替代物。 Used in polymers, thermal printing paper, other minor uses include drugs/biocides, surface coatings, inks & adhesives.
194	苯并[k]荧蒽 Benzo[k]fluoranthene	205-916-6	207-08-9	非刻意生產物質・存在於煤或石油等分餾物的 UVCB 物質・這些 UVCB 物質可用於塗料、橡膠、道路和潤滑劑。
195	荧蒽 Fluoranthene	205-912-4	206-44-0 93951-69-0	
196	菲 Phenanthrene	201-581-5	85-01-8	Used in coatings and paints, road and construction application, in binders or release agents, also in lubricants and cleaning agents
197	芘 Pyrene	204-927-3	129-00-0 1718-52-1	

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**(21)SVHC 第 21 批清單 (4 項) 於 2019 年 07 月 16 日正式公佈，清單如下：**

**Substances included in the Candidate List for authorization on 16 July 2019 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
198	2-甲氧基乙酸乙酯 methoxyethyl acetate	203-772-9	110-49-6	溶劑、加工助劑、半導體、紡織印刷、油漆等 Solvents, processing aids, semiconductors, textile printing, paints, etc.
199	三(4-壬基苯基·支鏈和直鏈)亞磷酸酯(TNPP) (4-壬基酚 4-NP · 支鏈和直鏈濃度≥0.1%重量比) Tris (4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	--	--	聚合物抗氧化劑、UV 安定劑、建築材料、窗簾、油漆、黏合劑等 Primarily used as an antioxidant to stabilise polymers.
200	2,3,3,3-四氟-2-(七氟丙基)丙酸，即其鹽類與鹵化醯類 (包括它們各自的異構物及其組合) 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	--	--	PFOA 的替代物、含氟聚合物助劑、纜線和 PTFE 塗層。 Processing aid in the production of fluorinated polymers
201	4-叔丁基苯酚 4-tert-butylphenol	202-679-0	98-54-4	用於產品塗料、聚合物、粘合劑、密封劑和合成其他物質。 Used in coating products, polymers, adhesives, sealants and for the synthesis of other substances.

**(22)SVHC 第 22 批清單 (4 項) 於 2020 年 01 月 16 日正式公佈，清單如下：**

**Substances included in the Candidate List for authorization on 16 January 2020 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
202	2-苄基-2-二甲基氨基-1-(4-嗎啉苯基)丁酮 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	404-360-3	119313-12-1	製造透過 UV 固化的速乾油墨、密封劑、黏膠等 The substance is used in polymer production
203	2-甲基-1-[4-(甲基硫代)苯基]-2-(4-嗎啉基)-1-丙酮 2-methyl-1-(4-methylthiophenyl)-2-morpholino propan-1-one	400-600-6	71868-10-5	
204	二異己基鄰苯二甲酸酯 Diisohexyl phthalate	276-090-2	71850-09-4	密封劑、聚合物中的可塑劑 Sealants, plasticizers in polymers
205	全氟丁烷磺酸及其鹽類 Perfluorobutane sulfonic acid (PFBS) and its salts	--	--	在聚合物生產和化學合成中當作催化劑/添加劑/反應物；也用作聚碳酸酯的阻燃劑(用於電子設備) Used as a catalyst/ additive/reactant in polymer manufacture and in chemical synthesis. It is also used as

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				a flame retardant in polycarbonate (for electronic equipment).
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(23)SVHC 第 23 批清單 (4 項) 於 2020 年 06 月 29 日正式公佈，清單如下：

Substances included in the Candidate List for authorization on 29 June 2020 and their SVHC properties:

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
206	1-vinylimidazole 1-乙烯基咪唑	214-012-0	1072-63-5	聚合反應之單體和中間體、漆料、表面處理劑、清潔劑等 Polymerization monomers and intermediates, paints, surface treatment agents, cleaning agents, etc.
207	2-methylimidazole 2-甲基咪唑	211-765-7	693-98-1	催化劑、起始劑、顏料、農藥、聚合反應之促進劑和環氧樹脂固化劑等 Catalysts, starters, pigments, pesticides, polymerization accelerators and epoxy curing agents, etc.
208	Butyl 4-hydroxybenzoate 4-羥基苯甲酸丁酯	202-318-7	94-26-8	用於化妝品、保養品、藥品或做為熱力/壓力傳遞之介質 Used in cosmetics, skin care products, medicines or as a heat/pressure transmission medium
209	Dibutylbis (pentane-2,4-dionato-O,O')tin 二丁基雙(2,4-戊二酸根合-O,O') 錫	245-152-0	22673-19-4	抑菌劑、木材防腐劑、農藥、穩定劑、催化劑、黏著劑、鞋及紡織品的防臭劑 Bacteriostatic agents, wood preservatives, pesticides, stabilizers, catalysts, adhesives, deodorants for shoes and textiles

(24)SVHC 第 24 批清單 (2 項) 於 2021 年 01 月 20 日正式公佈，清單如下：

Substances included in the Candidate List for authorization on 20 January 2021 and their SVHC properties:

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
210	s(2-(2-methoxyethoxy) ethyl) ether 雙(2-(2-甲氧基乙氧基)乙基)醚	205-594-7	143-24-8	用於生產塗料、粘合劑的溶劑、助焊劑溶劑、應用於 HFC/CFC 潤滑劑、鋰電池等。 Used in the production of coatings, adhesives, flux solvents, used in HFC/CFC lubricants, lithium batteries, etc.

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211	<p>Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety 二月桂酸二辛基錫 · 錫烷 · 二辛基- · 雙(椰油醯基)衍生物 · 以及任何其他錫烷 · 二辛基- · 雙(脂肪醯基)衍生物。其中 C12 為脂肪醯基部分的主要碳原子數</p>	--	--	<p>塑料或橡膠的穩定劑或觸媒 · 粘合劑 · 密封劑 · 塗料 · 油漆以及稀釋劑的原料 · 補土 · 金屬表面與非金屬表面處理產品 · 用於布料 · 紡織品和皮革的生產流程。 Stabilizers or catalysts for plastics or rubber, raw materials for adhesives, sealants, coatings, paints and thinners, soil filling, metal surface and non-metal surface treatment products, used in the production process of cloth, textiles and leather.</p>
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**(25)SVHC 第 25 批清單 (8 項) 於 2021 年 07 月 09 日正式公佈 · 清單如下：**

**Substances included in the Candidate List for authorization on 09 July 2021 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
212	2-(4-tert-butylbenzyl) propionaldehyde and its individual stereoisomers 2-(4-叔丁基苄基)丙醛及其各自立體異構物	-	-	聚合中間體 · 清潔劑 · 殺菌劑 · 空氣清淨劑 · 香精等
213	Orthoboric acid, sodium salt 硼酸鈉鹽	237-560-2	13840-56-7	防腐劑 · 抗腐蝕劑
214	2,2-bis(bromomethyl)propane1,3-diol (BMP) 2,2-雙(溴甲基)-1,3-丙二醇 2,2-dimethylpropan-1-ol, tribromo derivative / 3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA) 3-溴-2,2-雙(溴甲基)-1-丙醇 2,3-dibromo-1-propanol (2,3-DBPA) 2,3-二溴-1-丙醇	221-967-7 253-057-0 202-480-9	3296-90-0 36483-57-5/ 1522-92-5 96-13-9	阻燃劑 · 發泡中間體 · 塑膠聚合反應物 · 反應性加工助劑
215	Glutaral 戊二醛	203-856-5	111-30-8	殺菌劑 · 防腐劑 · 滅火劑 · 消泡劑 · 清潔劑等
216	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17] 中鏈氯化石蠟[UVCB 物質 · 含量大於或等於 80% 碳鏈長度在 C14 至 C17 範圍內的直鏈氯代烷烴]	-	-	PVC 塑膠 · 密封膠 · 橡膠和紡織品中的阻燃劑和二次增塑劑 · 寒卻劑中的添加劑 · 以及機械和金屬產品製造中的潤滑劑等
217	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/or combinations thereof (PDDP) 透過由寡聚物反應烷基化的酚產物(主要在對位位置)具有 12 個碳支鏈或直鏈 · 並涵蓋其他同分異構物與/或其它組合	-	-	潤滑油和燃料添加劑 · 以及印刷油墨 · 油漆和塗料的中間體與酚醛樹脂單體等
218	1,4-dioxane 1,4-二氧六環	204-661-8	123-91-1	生產用於食品 · 化妝品 · 農業 · 獸醫和各種工業應用化學品的殘留物 · 例如清潔劑 · 介面活性劑 · 溶劑 · 表面處理劑等

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219	4,4'-(1-methylpropylidene) bisphenol; (bisphenol B) 雙酚 B	201-025-1	77-40-7	用於製造酚醛和聚碳酸酯樹脂、農藥、染料
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**(26)SVHC 第 26 批清單 (4 項) 於 2022 年 01 月 18 日正式公佈，清單如下：**

**Substances included in the Candidate List for authorization on 18 January 2022 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
220	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC) 6,6'雙二叔丁基-2,2'-亞甲基雙對甲酚	204-327-1	119-47-1	橡膠、潤滑劑、粘合劑、油墨、燃料
221	tris(2-methoxyethoxy) vinylsilane 三(2-甲氧基乙氧基)乙烯基矽烷	213-934-0	1067-53-4	橡膠、塑料、密封劑
222	(±)-1,7,7-trimethyl-3-[(4-methylphenyl) methylene] bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC) (±)-1,7,7-三甲基-3-[(4-甲基苯基)亞甲基]二環[2.2.1]庚烷-2-酮，包括各個異構體和/或其組合	-	-	化妝品
223	S-(tricyclo(5.2.1.02,6)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate 硫-(三環[5.2.1.02,6]癸-3-烯-8(或9)-基) 氧-(異丙基或異丁基或2-乙基己基) 氧-(異丙基或異丁基或2-乙基己基)二硫代磷酸酯	401-850-9	255881-94-8	潤滑劑、潤滑脂

**(27)SVHC 第 27 批清單 (1 項) 於 2022 年 06 月 10 日正式公佈，清單如下：**

**Substances included in the Candidate List for authorization on 10 June 2022 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
224	N-(hydroxymethyl)acrylamide N-(羥甲基)丙烯醯胺	213-103-2	924-42-5	聚合單體、丙烯酸氟烷基酯共聚物、油漆/塗料

**(28) SVHC 第 28 批清單 (9 項) 於 2023 年 01 月 17 日正式公佈，清單如下：**

**Substances included in the Candidate List for authorization on 17 January 2023 and their SVHC properties:**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
225	1,1'-(ethane-1,2-diylbisoxo) bis [2,4,6-tribromobenzene] 1,2-二(2,4,6-三溴苯氧基)乙烷	253-692-3	37853-59-1	作為 ABS、HIPS、熱塑性塑膠和紡織品中的添加型阻燃劑；作為電子電氣設備的熱穩定劑；作為建築材料窗框周圍的密封劑。
226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol 四溴雙酚 A	201-236-9	79-94-7	主要作為印刷電路板中的反應型阻燃劑，用來生產具阻燃環氧樹脂、聚碳酸酯樹脂；用於電子電氣設備的熱塑性塑膠組件及紡織品

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				的添加型阻燃劑。
227	4,4'-sulphonyldiphenol 雙酚 S	201-250-5	80-09-1	用於生產熱感紙；用於生產 PESU 塑膠的單體；用於生產合成鞣劑的單體；用於皮革製品及回收紙。
228	Barium diboron tetraoxide 偏硼酸鋇	237-222-4	13701-59-2	用於油漆塗料；用於卡車 PVC 膜 塗層和電線塗層。
229	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof 3,4,5,6-四溴-1,2-苯二羧酸雙(2-乙基己基)酯，包括包括任何單獨的異構體 和/或其組合	-	-	用於橡膠和塑料的生產；用於電線電纜絕緣材料、薄膜和片材、地氈 背襯、塗層織物、牆面覆蓋物及粘 合劑的阻燃劑和可塑劑；用於密封 劑和密封產品。
230	Isobutyl 4-hydroxy benzoate 4-羥基苯甲酸 2-甲基丙酯	224-208-8	4247-02-3	用於塗料產品、填料、補土、石膏、 建模粘土、油墨和調色劑；用於混 合物和化學品生產。
231	Melamine 三聚氰胺	203-615-4	108-78-1	作為各種聚合反應的起始原料，主 要用於甲醛樹脂的生產。用於其他 三聚氰胺衍生物的生產，此類衍 生物可用作阻燃劑和膨脹型(防火)塗 料；用於聚氨酯泡綿、橡膠、熱固 性塑料以及膨脹型(防火)塗料的阻 燃劑。
232	Perfluoroheptanoic acid and its salts 全氟庚酸及其鹽	-	-	可用作潤濕劑、分散劑、乳化劑和 發泡劑。
233	reaction mass of 2,2,3,3,5,5,6,6-octafluoro -4-(1,1,1,2,3,3,3-heptafluoropropen-2-yl) morpholine and 2,2,3,3,5,5,6,6-octafluoro -4-(heptafluoropropyl) morpholine 2,2,3,3,5,5,6,6-八氟-4-(1,1,1,2,3,3,3-七氟丙烷-2-基)嗎啉和 2,2,3,3,5,5,6,6-八 氟烷-4-(七氟丙基)嗎啉的反應物料	473-390-7	-	用作實驗室試劑和工業功能性流 體。

(29) SVHC 第 29 批清單 (2 項) 於 2023 年 06 月 14 日正式公佈，清單如下：

Substances included in the Candidate List for authorization on 14 June 2023 and  
their SVHC properties



項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
234	Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide 二苯基(2,4,6-三甲基苯甲 酯基)氧化膦	278-355-8	75980-60-8	油墨和碳粉、塗料產品、光化學製 品、聚合物、粘合劑和密封劑，以 及填料、油灰、石膏、造型粘土
235	Bis(4-chlorophenyl) sulphone 雙(4-氯苯基)砜	201-247-9	80-07-9	製造化學品(醫藥、農藥、染料等)、 塑料製品(聚砜、聚醚砜等工程塑 料)和橡膠製品

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**(30) SVHC 第 30 批清單 ( 5 項 ) 於 2024 年 01 月 29 日正式公佈 , 清單如下 :**

**Substances included in the Candidate List for authorization on 29 January 2024 and their SVHC properties**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
236	2,4,6-tri-tert-butylphenol 2,4,6-三叔丁基苯酚	211-989-5	732-26-3	化學工業用中間體/反應物；用於燃料中的穩定劑
237	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl) phenol (UV-329)2-[2-羥基-5-(1,1,3,3-四甲基)苯基]苯並三唑	221-573-5	3147-75-9	用於塑膠、塗料、黏著劑，以及密封劑的紫外光吸收劑
238	2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one 2-(二甲基氨基)-2-[(4-甲基苯基)甲基]-1-[4-(4-嗎啉代)苯基]-1-丁酮	438-340-0	119344-86-4	用於墨水、塗料、印刷的 UV 引發劑
239	Bumetizole (UV-326);2-tert-butyl-6-(5-chloro-2H-benzotriazol-2-yl)-4-methylphenol 2-叔丁基-6-(5-氯-2H-苯並三唑-2-基)-4-甲基苯酚	223-445-4	3896-11-5	用於塑膠、塗料、黏著劑，以及密封劑的紫外光吸收劑
240	Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol 2-苯基丙烯與苯酚的低聚和烷基化反應產物	700-960-7	--	用於聚合物、粘合劑、密封劑、塗料、填料、補土、油墨中。用於電氣、電子和光學設備及塑料製品。用於洗滌劑、油漆和塗料、香料和空氣清新劑。

**(31) SVHC 第 31 批清單 ( 1 項 ) 於 2024 年 6 月 27 日正式公佈 , 清單如下 :**

**Substances included in the Candidate List for authorization on 27 June 2024 and their SVHC properties**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
241	過氧化二異丙苯 Bis( $\alpha$ , $\alpha$ -dimethylbenzyl) peroxide	201-279-3	80-43-3	用於生產塑膠產品、化學品和橡膠產品

**(32) SVHC 第 32 批清單 ( 1 項 ) 於 2024 年 11 月 08 日正式公佈 , 清單如下 :**

**Substances included in the Candidate List for authorization on 08 November 2024 and their SVHC properties**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
242	磷酸三苯酯(TPP) Triphenyl phosphate	204-112-2	115-86-6	在聚合物配方、黏合劑和密封劑、化妝品和個人護理產品中，作為阻燃劑和塑化劑

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**(33) SVHC 第 33 批清單 ( 5 項 ) 於 2025 年 01 月 21 日正式公佈，清單如下：**

**Substances included in the Candidate List for authorization on 21 January 2025 and their SVHC properties**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
243	6-[(C10-C13)-烷基-(支鏈·不飽和)-2,5-二氫吡咯烷-1-基]己酸 6-[(C10-C13)-alkyl-(branched, unsaturated)-2,5-dioxopyrrolidin-1-yl] hexanoic acid	701-118-1	2156592-54-8	潤滑油、潤滑脂、脫模產品、金屬加工液
244	O,O,O-三苯基硫代磷酸酯 O,O,O-triphenyl phosphorothioate	209-909-9	597-82-0	潤滑油、潤滑脂、脫模產品、金屬加工液
245	八甲基三硅氧烷 Octamethyltrisiloxane	203-497-4	107-51-7	化妝品、個人護理產品、保健產品、藥品、汽車護理產品
246	全氟三丙胺 Perfluamine	206-420-2	338-83-0	用於半導體設備、伺服器浸入式冷卻的導熱液體
247	三苯基硫代磷酸盐和叔丁基化苯基衍生物的反应物 Reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	421-820-9	192268-65-8	潤滑油、潤滑脂、脫模產品、金屬加工液

**(34) SVHC 第 34 批清單 ( 3 項 ) 於 2025 年 06 月 25 日正式公佈，清單如下：**

**Substances included in the Candidate List for authorization on 25 June 2025 and their SVHC properties**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
248	1,1,1,3,5,5,5-七甲基-3-[(三甲基甲矽烷基)氧基]三矽氧烷 1,1,1,3,5,5,5-heptamethyl-3-[(trimethylsilyl)oxy]trisiloxane	241-867-7	17928-28-8	化妝品、香水、個人護理產品、中間體、汽車美容產品、洗滌和清潔產品、油漆和塗料、黏合劑
249	十甲基四矽氧烷 Decamethyltetrasiloxane	205-491-7	141-62-8	洗滌和清潔產品、拋光打蠟、化妝品和個人護理產品
250	活性棕-51 tetra(sodium/potassium) 7-[(E)-2-acetamido-4-[(E)-(4-[(4-chloro-6-({2-[(4-fluoro-6-({[4-(vinylsulfonyl)phenyl]amino}-1,3,5-triazine-2-yl)amino]propyl}amino)-1,3,5-triazine-2-yl]amino}-5-sulfonato-1-naphthyl)diazhenyl]-5-methoxyphenyl)diazhenyl]-1,3,6-naphthalenetrisulfonate (Reactive Brown 51)	466-490-7	--	用於紡織品處理劑與染料

**(35) SVHC 第 35 批清單 ( 1 項 ) 於 2025 年 11 月 5 日正式公佈，清單如下：**

**Substances included in the Candidate List for authorization on 5 November 2025 and their SVHC properties**

項目 Item	物質名稱 Substances	EC NO.	CAS No.	主要用途 Purpose
251	十溴二苯乙烷 1,1'-(ethane-1,2-diyl)bis[pentabromobenzene] (DBDPE)	284-366-9	84852-53-9	阻燃劑

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