



Date: 17 February 2023

To: Licence Holders, Industry Associations and Stakeholders

Dear Sir / Madam,

## **JOINT REGULATORY CONTROL OF SCHEDULED CHEMICAL WEAPONS CONVENTION (CWC) CHEMICALS**

With effect from **21 August 2023**<sup>1</sup>, the National Environment Agency (NEA) and the Singapore Civil Defence Force (SCDF) will be co-regulating 47 scheduled CWC chemicals with Singapore Customs.

### Existing Regulatory Control of Scheduled CWC Chemicals

2 Singapore Customs, as the National Authority for Chemical Weapons Convention (NA(CWC)), will continue to oversee Singapore's international obligations towards the Organisation for the Prohibition of Chemical Weapons (OPCW). There is no change to the existing Singapore Customs' licensing regime.

### Enhancements to Regulatory Control of Scheduled CWC Chemicals

3 In addition to Singapore Customs' regulatory requirements, NEA and SCDF will be administering domestic regulatory controls on safety and security by co-regulating the 47 scheduled CWC chemicals as Hazardous Substances (HS) under the Environmental Protection and Management Act (EPMA) and its Regulations, or as Flammable Materials (FM) under the Fire Safety Act (FSA) and its Regulations respectively:

- a) NEA will co-regulate 35 of the 47 scheduled CWC chemicals as HS with Singapore Customs. Today, NEA is already co-regulating 9 CWC chemicals<sup>2</sup> and will co-regulate another 26 CWC chemicals as part of this regulatory change.
- b) SCDF will co-regulate the remaining 12 of the 47 scheduled CWC chemicals as FM with Singapore Customs.

4 Companies that perform the following activities which exceed the exemption threshold quantities or purities must obtain a licence/permit:

- a) Activities involving HS require a HS licence or permit for:
  - i. Import, export, manufacture, offer for sale, transport, storage and/or use – Companies will be required to obtain a HS licence. In addition to a HS licence, a HS transport approval will be required for the transportation of HS, subject to the type of HS and its quantity per transportation.

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<sup>1</sup> The legislative amendments are gazetted by NEA and SCDF on 17 February 2023 and will take effect on 21 August 2023, factoring a 6-month transition period for the industry to prepare and comply with the regulatory changes.

<sup>2</sup> The 9 chemicals that NEA is currently co-regulating with Singapore Customs are (1) Amiton, (2) Arsenic trichloride, (3) Phosgene, (4) Cyanogen chloride, (5) Hydrogen cyanide, (6) Chloropicrin, (7) Phosphorus oxychloride, (8) Phosphorus trichloride, and (9) Phosphorus pentachloride.



- ii. Purchase, storage and/or use – Companies will be required to obtain a HS permit.
- b) Activities involving FM require a P&FM licence for import, transport, storage or conveyance via pipeline.

5 Please refer to **Annex A** for details on the co-regulation of the 47 scheduled CWC chemicals, including the respective agencies, exemption criteria for licence/permit application and requirements for road transportation.

6 All HS and FM licence/permit holders will be subject to safety requirements imposed by NEA and SCDF respectively. Facilities storing scheduled CWC chemicals will also be subject to enhanced security requirements under the respective regulatory regimes. Agencies will reach out to the licensees of these facilities and if necessary, arrange for a joint site inspection with the Singapore Police Force (SPF) to thoroughly assess the adequacy of existing onsite security measures. The details on the licensing/permit/approval requirements may also be found on the NEA and SCDF websites respectively:

NEA	<a href="https://www.nea.gov.sg/our-services/pollution-control/chemical-safety/hazardous-substances">https://www.nea.gov.sg/our-services/pollution-control/chemical-safety/hazardous-substances</a>
SCDF	<a href="https://www.scdf.gov.sg/home/fire-safety/petroleum-and-flammable-material-licences">https://www.scdf.gov.sg/home/fire-safety/petroleum-and-flammable-material-licences</a>

7 To avoid any potential disruption to business operations, companies dealing with the scheduled CWC chemicals should consider applying for or amending their licences/permits/transport approvals from **1 March 2023 onwards**. Applications can be submitted via GoBusiness at <https://gobusiness.gov.sg>. For SCDF’s import and pipeline licences, applications can be submitted via SCDF E-Services<sup>3</sup> at <https://eservices1.scdf.gov.sg>.

Streamlining of TradeNet Import/Export Permit Declarations for Scheduled CWC Chemicals

8 Companies that are importing/exporting scheduled CWC chemicals shall continue to apply for the TradeNet import/export permit. Agencies will implement product code pairing for TradeNet import and export permit declarations for the jointly controlled chemicals using relevant Harmonised System Codes and Product Codes of Singapore Customs and NEA/SCDF. Detailed changes to the declaration process will be made known to traders and declaring agents in Q2 2023. In the interim, traders and declaring agents may continue to declare the import and export permit applications for these chemicals using existing Singapore Customs’ Product Codes.

<sup>3</sup> Migration to GoBusiness is currently work in progress. SCDF will notify industry of the effective date when ready.



9 Please note that Singapore Customs' existing trade controls and restrictions<sup>4</sup> under the Chemical Weapons (Prohibition) Act and its Regulations remain applicable. From 21 August 2023, TradeNet import/export permit approvals from the co-regulating agencies (i.e., Singapore Customs and NEA/SCDF) will be required prior to any import/export of scheduled CWC chemicals.

10 Should you have any enquiries on the regulatory changes involving scheduled CWC chemicals, please contact:

Agencies	Contacts
SCDF	<ul style="list-style-type: none"><li>• Storage Licence (Koh_Wen_Xi@scdf.gov.sg)</li><li>• Transport Licence (Md_Razif_Abd_Rahman@scdf.gov.sg)</li><li>• Import Licence (Muhathir_Mohamad@scdf.gov.sg)</li><li>• Pipeline Licence (Wong_Weng_Kuin@scdf.gov.sg)</li></ul>
NEA	<ul style="list-style-type: none"><li>• NEA_PCD_HS@nea.gov.sg</li></ul>
Singapore Customs	<ul style="list-style-type: none"><li>• CUSTOMS_NACWC@customs.gov.sg</li></ul>

(This is a computer-generated circular and requires no signature.)

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<sup>4</sup> Under Regulations 3(2)(a) of the Chemical Weapons (Prohibition) Regulations 2007, holder of a CWC licence shall not transfer any Schedule 2 chemical to a country or territory that is not a party to the Chemical Weapons Convention unless (a) the chemical, if it is one specified in item A of Part II of the Schedule to the Chemical Weapons (Prohibition) Act, forms no more than 1% by weight of a mixture or, (b) if it is one specified in item B of Part II of that Schedule, forms no more than 10% by weight of the mixture.



### Annex A – List of Scheduled CWC Chemicals

S/N	Scheduled CWC Chemical Name	Co-Regulatory Agency (NEA/SCDF)	Exclusion/Exemption Purity for P&FM licence and HS licence/permit	Threshold Quantity per Transportation, above which Transport Approval/Licence is required	Threshold Quantity (in Metric Tons (MT)) where HTVTS <sup>5</sup> is required
<b>Schedule 1</b>					
1	O-Alkyl ( $\leq C_{10}$ , incl. cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr)-phosphonofluoridates e.g. Sarin: O-Isopropyl methylphosphonofluoridate Soman: O-Pinacolyl methylphosphonofluoridate	NEA	-	0	Above 0
2	O-Alkyl ( $\leq C_{10}$ , incl. cycloalkyl) N, N-dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidocyanidates e.g. Tabun: O-Ethyl N, N-dimethylphosphoramidocyanidate	SCDF	-	0	Above 0
3	O-Alkyl (H or $\leq C_{10}$ , incl. cycloalkyl) S-2-dialkyl (Me, Et, n-Pr or i-Pr)-aminoethyl alkyl (Me, Et, n-Pr or i-Pr) phosphonothiolates and corresponding alkylated or protonated salts e.g.	NEA	-	0	Above 0

<sup>5</sup> HTVTS stands for HazMat Transport Vehicles Tracking System. More information on HTVTS can be found at [https://www.scdf.gov.sg/docs/default-source/scdf-library/fssd-downloads/circulars/circular\\_transport\\_updated\\_01072022.pdf](https://www.scdf.gov.sg/docs/default-source/scdf-library/fssd-downloads/circulars/circular_transport_updated_01072022.pdf)



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	VX: O-Ethyl S-2-diisopropylaminoethyl methyl phosphonothiolate				
4	Sulphur mustards: 2-Chloroethylchloromethylsulfide Mustard gas: Bis(2-chloroethyl)sulfide Bis(2-chloroethylthio)methane Sesquimustard: 1,2-Bis(2-chloroethylthio)ethane 1,3-Bis(2-chloroethylthio)-n-propane 1,4-Bis(2-chloroethylthio)-n-butane 1,5-Bis(2-chloroethylthio)-n-pentane Bis(2-chloroethylthiomethyl)ether O-Mustard: Bis(2-chloroethylthioethyl)ether	SCDF	-	0	Above 0
5	Lewisites: Lewisite 1: 2-Chlorovinylchloroarsine Lewisite 2: Bis(2-chlorovinyl)chloroarsine Lewisite 3: Tris(2-chlorovinyl)arsine	NEA	-	0	Above 0
6	Nitrogen mustards: HN1: Bis(2-chloroethyl)ethylamine	NEA	-	0	Above 0



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	HN2: Bis(2-chloroethyl)methylamine HN3: Tris(2-chloroethyl)amine				
7	Saxitoxin	NEA	-	0	Above 0
8	Ricin	NEA	-	0	Above 0
9	Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldifluorides e.g. DF: Methylphosphonyldifluoride	NEA	-	0	Above 0
10	O-Alkyl (H or $\leq C_{10}$ , incl. cycloalkyl) O-2- dialkyl (Me, Et, n-Pr or i-Pr)-aminoethyl alkyl (Me, Et, n-Pr or i-Pr) phosphonites and corresponding alkylated or protonated salts e.g. QL: O-Ethyl O-2-diisopropylaminoethyl methylphosphonite	NEA	-	0	Above 0
11	Chlorosarin: O-Isopropyl methylphosphonochloridate	NEA	-	0	Above 0
12	Chlorosoman: O-Pinacolyl methylphosphonochloridate	NEA	-	0	Above 0
13	P-alkyl (H or $\leq C_{10}$ , incl. cycloalkyl) N-(1-(dialkyl( $\leq C_{10}$ , incl. cycloalkyl)amino)) alkylidene(H or $\leq C_{10}$ , incl. cycloalkyl)	NEA	-	0	Above 0



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	phosphonamidic fluorides and corresponding alkylated or protonated salts e.g. N-(1-(di-n-decylamino)-n-decylidene)-P-decylphosphonamidic fluoride Methyl-(1-(diethylamino)ethylidene) phosphonamidofluoridate				
14	O-alkyl (H or $\leq C_{10}$ , incl. cycloalkyl) N-(1-(dialkyl( $\leq C_{10}$ , incl. cycloalkyl)amino)) alkylidene(H or $\leq C_{10}$ , incl. cycloalkyl) phosphoramidofluoridates and corresponding alkylated or protonated salts e.g. O-n-Decyl N-(1-(di-n-decylamino)-n-decylidene) phosphoramidofluoridate Methyl (1-(diethylamino)ethylidene)phosphoramidofluoridate Ethyl (1-(diethylamino)ethylidene)phosphoramidofluoridate	NEA	-	0	Above 0



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15	Methyl-(bis(diethylamino)methylene) phosphonamidofluoridate	NEA	-	0	Above 0
16	<p>Carbamates (quaternaries and bisquaternaries of dimethylcarbamoyloxy pyridines)</p> <p>Quaternaries of dimethylcarbamoyloxy pyridines:            1-[N,N-dialkyl(<math>\leq C_{10}</math>)-N-(n-(hydroxyl, cyano, acetoxy)alkyl(<math>\leq C_{10}</math>)) ammonio]-n-[N-(3-dimethylcarbamoxy-<math>\alpha</math>-picolinyl)-N,N-dialkyl(<math>\leq C_{10}</math>) ammonio]decane dibromide (n=1-8)            e.g: 1-[N,N-dimethyl-N-(2-hydroxy)ethylammonio]-10-[N-(3-dimethylcarbamoxy-<math>\alpha</math>-picolinyl)-N,N-dimethylammonio]decane dibromide</p> <p>Bisquaternaries of dimethylcarbamoyloxy pyridines:            1,n-Bis[N-(3-dimethylcarbamoxy-<math>\alpha</math>-picolylyl)-N,N-dialkyl(<math>\leq C_{10}</math>) ammonio]-alkane-(2,(n-1)-dione) dibromide (n=2-12)            e.g. 1,10-Bis[N-(3-dimethylcarbamoxy-<math>\alpha</math> picolylyl)-N-ethyl-N-methylammonio]decane-2,9-dione dibromide</p>	NEA	-	0	Above 0





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<b>Schedule 2</b>					
17	Amiton: O,O-Diethyl S-[2-(diethylamino)ethyl] phosphorothiolate and corresponding alkylated or protonated salts	NEA (already regulated by NEA)	-	0	Above 0
18	PFIB: 1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene	NEA	-	0	Above 0
19	BZ: 3-Quinuclidinyl benzilate	NEA	-	0	Above 0
20	Chemicals, except for those listed in Schedule 1, containing a phosphorus atom to which is bonded one methyl, ethyl or propyl (normal or iso) group but not further carbon atoms e.g. Methylphosponyl dichloride Dimethyl methylphosphonate	NEA	Fonofos: O-Ethyl S-phenyl ethylphosphonothiolothionate;  Substances containing not more than 30%, weight in weight, of any of these chemicals, excluding methylphosponyl dichloride and ethylphosphonic dichloride	50 kg	Not Required
21	N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides	SCDF	Excluding a mixture containing not more than 30% by weight of N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalide	20 litres	3MT and above



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22	Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl (Me, Et, n-Pr or i-Pr)-phosphoramidates	NEA	Substances containing not more than 30%, weight in weight, of dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl (Me, Et, n-Pr or i-Pr)-phosphoramidates	50 kg	Not Required
23	Arsenic trichloride	NEA (already regulated by NEA)	-	50 kg	1MT and above
24	2,2-Diphenyl-2-hydroxyacetic acid	NEA	Substances containing not more than 30%, weight in weight, of 2,2-Diphenyl-2-hydroxyacetic acid	50 kg	Not Required
25	Quinuclidin-3-ol	NEA	Substances containing not more than 30%, weight in weight, of quinuclidin-3-ol	50 kg	Not Required
26	N,N-Dialkyl (Me,Et,n-Pr or i-Pr) aminoethyl-2-chlorides and corresponding protonated salts	NEA	Substances containing not more than 30%, weight in weight, of N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides and corresponding	50 kg	Not Required



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			protonated salts, excluding 2-(N,N-Diisopropylamino) ethylchloride hydrochloride, and 2-(N,N-Diethylamino) ethylchloride hydrochloride		
27	N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols and corresponding protonated salts  Exemptions: N,N-Dimethylaminoethanol and corresponding protonated salts N,N-Diethylaminoethanol and corresponding protonated salts	SCDF	Any mixture containing not more than 30% by weight of — (i) N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ol; (ii) any corresponding protonated salt; or (iii) both combined	20 litres	3MT and above
28	N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2- thiols and corresponding protonated salts	NEA	Substances containing not more than 30%, weight in weight, of N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2- thiols and corresponding protonated salts	50 kg	Not Required



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29	Thiodiglycol: Bis(2-hydroxyethyl)sulfide	NEA	Substances containing not more than 30%, weight in weight, of thiodiglycol: Bis(2-hydroxyethyl)sulfide	50 kg	Not Required
30	Pinacolyl alcohol: 3,3-Dimethylbutan-2-ol	SCDF	-	20 litres	3MT and above
<b>Schedule 3</b>					
31	Phosgene: Carbonyl dichloride	NEA (already regulated by NEA)	-	0	Above 0
32	Cyanogen chloride	NEA (already regulated by NEA)	-	50 kg	1MT and above
33	Hydrogen cyanide	NEA (already regulated by NEA)	-	0	1MT and above
34	Chloropicrin: Trichloronitromethane	NEA (already regulated by NEA)	-	50 kg	1MT and above
35	Phosphorus oxychloride	NEA (already regulated by NEA)	-	50 kg	1MT and above



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36	Phosphorus trichloride	NEA (already regulated by NEA)	-	50 kg	1MT and above
37	Phosphorus pentachloride	NEA (already regulated by NEA)	-	50 kg	1MT and above
38	Trimethyl phosphite	SCDF	-	20 litres	3MT and above
39	Triethyl phosphite	SCDF	-	20 litres	3MT and above
40	Dimethyl phosphite	SCDF	Excluding a mixture containing not more than 30% by weight of dimethyl phosphite	20 litres	3MT and above
41	Diethyl phosphite	NEA	Substances containing not more than 30%, weight in weight, of diethyl phosphite	50 kg	Not Required
42	Sulfur monochloride	SCDF	Excluding a mixture containing not more than 30% by weight of sulfur monochloride	20 litres	3MT and above
43	Sulfur dichloride	SCDF	Excluding a mixture containing not more than 30% by weight of sulfur dichloride	20 litres	3MT and above



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44	Thionyl chloride	NEA	Substances containing not more than 30%, weight in weight, of thionyl chloride	50 kg	Not Required
45	Ethyldiethanolamine	SCDF	Excluding a mixture containing not more than 30% by weight of ethyldiethanolamine	20 litres	3MT and above
46	Methyldiethanolamine	SCDF	Excluding a mixture containing not more than 30% by weight of methyldiethanolamine	20 litres	3MT and above
47	Triethanolamine	NEA	Substances containing not more than 30%, weight in weight, of triethanolamine	50 kg	Not Required