

Safety Resources
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February 1, 2019

Re: Annual Declaration of Past Activities in 2018 Involving Chemicals Covered by the Chemical Weapons Convention

On behalf of the University of Saskatchewan, Safety Resources reports to the Canadian National Authority regarding the institution's activities with chemicals covered by the Chemical Weapons Convention (CWC). This submission requires information concerning the production, processing, consumption, storage, import and export of chemicals covered by the CWC.

As part of this submission, Safety Resources requires researchers, supervisors, lab managers and department heads to review the three *Schedules of the Chemical Weapons Convention* (attached) and report activity involving any of the chemicals in the schedules to Safety Resources. In most cases, the university will not achieve any reportable limits, but the university reports the activities with these chemicals to the Canadian National Authority regardless.

When forwarding any information to Safety Resources, please include the name of the chemical, CAS registry number, if the substance was produced, processed, consumed, stored, imported or exported, and the related weight of the substance. **Please provide all information by 12:00PM, February 22, 2019 to Safety Resources by emailing safetyresources@usask.ca.**

If you have any questions or require any assistance please contact Safety Resources at 966-4675 or safetyresources@usask.ca.

Thank-you,

Jeff Lindsay
Coordinator, Safety and Research Programs
Safety Resources

KEY POINTS TO REGISTER BEFORE STARTING YOUR ANNUAL DECLARATION

QUANTITIES/WEIGHT: The quantities that have to be declared refer to the *weight of the scheduled chemical* contained in a mixture and *not* to the total weight of the mixture.

IMPORT: For the purposes of submitting declarations, the term 'import' shall be understood to mean the physical movement of scheduled chemicals into Canada from the territory or any other place under the jurisdiction or control of another country, *excluding transit operations*. For the purposes of declaring imports, the declaring company or institution must specify the country from which the scheduled chemicals *were dispatched*, excluding any countries through which the scheduled chemicals might have transited and *regardless of the country in which the scheduled chemicals were produced, if different from the country of dispatch*.

EXPORT: The term 'export' shall be understood to mean the physical movement of scheduled chemicals out of Canada into the territory or any other place under the jurisdiction or control of another country, *excluding transit operations*. For the purposes of declaring exports, the declaring company or institution must specify the *intended* country of destination, *excluding the countries through which the scheduled chemicals may have transited*.

TRANSIT OPERATIONS: Transit operations refer to the physical movement of scheduled chemicals whereby they pass through the territory of another country on the way to their intended country of destination. Transit operations include changes in the means of transport, *including temporary storage* only for that purpose.

IMPORTER OF RECORD: In order to prevent double accounting, only the *"Importer of Record"* should declare the import of scheduled chemicals. Importer of Record is *the person or entity who causes the goods to be imported and is responsible for accounting for the goods and paying applicable duties and taxes*.

SCHEDULE 1 CHEMICALS

Canadian companies or institutions producing, acquiring, consuming, storing, transferring, importing and/or exporting any amount of Schedule 1 chemicals are required to declare their activities to the National Authority. There are no quantity or concentration thresholds for declarations.

CHEMICAL NAME CAS REGISTRY NUMBER

A. Toxic Chemicals

1. 0-Alkyl (<=C10, incl. cycloalkyl) alkyl
(Me, Et, n-Pr or i-Pr)-phosphonotluoridates

e.g. *Sarin*: 0-Isopropyl methylphosphonotluoridate (107-44-8)
Soman: 0-Pinacolyl methylphosphonofluoridate (96-64-0)
2. 0-Alkyl (<=C10, incl. cycloalkyl) N,N-dialkyl
(Me, Et, n-Pr or i-Pr) phosphoramidocyanidates

e.g. *Tabun*: 0-Ethyl N,N-dimethyl phosphoramido/cyanidate (77-81-6)
3. 0-Alkyl (Hor <=C10, 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. IT: 0-Ethyl S-2-diisopropylaminoethyl methyl
phosphonothiolate (50782-69-9)
4. *Sulphur Mustards*

2-Chloroethylchloromethylsulfide (2625-76-5)
Mustard gas: Bis (2-chloroethyl) sulfide (505-60-2)
Bis (2-chloroethylthio)methane (63869-13-6)
Sesquimustard: 1, 2-Bis (2-chloroethylthio) ethane (3563-36-8)
1, 3-Bis (2-chloroethylthio) -n-propane (63905-10-2)
1, 4-Bis (2-chloroethylthio) -n-butane (142868-93-7)
1, 5-Bis (2-chloroethylthio) -n-pentane (142868-94-8)
Bis (2-chloroethylthiomethyl) ether (63918-90-1)
0-Mustard: Bis (2-chloroethylthioethyl) ether (63918-89-8)
5. *Lewisites*

Lewisite 1: 2-Chlorovinylchloroarsine (541-25-3)
Lewisite 2: Bis (2-chlorovinyl) chloroarsine (40334-69-8)
Lewisite 3: Tris (2-chlorovinyl) arsine (40334-70-1)
6. *Nitrogen Mustards*

HNI: Bis (2-chloroethyl) ethylamine (538-07-8)
HN2: Bis (2-chloroethyl) methylamine (51-75-2)
HN3: Tris (2-chloroethyl) amine (555-77-1)
7. *Saxitoxin* (35523-89-8)
8. *Ricin* (9009-86-3)

B. Precursors

9. Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldifluorides

e.g. DF: Methylphosphonyldifluoride (676-99-3)

10. O-Alkyl (Hor \leq ClO, incl. cycloalkyl) O-2-dialkyl
(Me, Et, n-Pr or i-Pr) aminoethyl alkyl
(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 (57856-11-8)

11. Chlorosarin: O-Isopropyl methylphosphonochloridate (1445-76-7)

12. Chlorosoman: O-Pinacolyl methylphosphonochloridate (7040-57-5)

SCHEDULE 2 CHEMICALS

Canadian companies or institutions must declare if, in the previous calendar year, they have been involved in producing, processing, or consuming any chemical listed in Schedule 2 that *meets or exceeds both of the following declaration thresholds* noted below. In addition, you must declare if your company or institution is involved in importing or exporting *any amount* of a mixture, *that is not a consumer product*, meeting the *concentration* thresholds noted below.

1. Quantitative Thresholds

Plants producing, consuming or processing at or above these thresholds:

- 100 grams of a chemical designated "*" in Schedule 2, Part A
- 10 kg of any other chemical listed in Schedule 2, Part A
- 100 kg of a chemical listed in Schedule 2, Part B

2. Concentration Thresholds

Mixtures containing 10% or more by weight of a Schedule 2B chemical, 0.5% or more by weight of a Schedule 2A or 2A* chemical :

CHEMICAL NAME CAS REGISTRY NUMBER

A. Toxic Chemicals

- | | |
|--|-------------|
| 1. Amiton: 0,0-Diethyl S-{2- (diethylamino)ethyl} phosphorothiolate, and corresponding alkylated or protonated salts | (78-53-5) |
| 2. PFIB: 1, 1, 3, 3, 3-Pentafluoro-2-(trifluoromethyl)-1-propene | (382-21-8) |
| 3. BZ: 3-Quinuclidinyl benzilate (*) | (6581-06-2) |

B. Precursors

- | | |
|--|-------------|
| 4. Chemicals, except for those in Schedule 1, containing a phosphorous atom to which is bonded one methyl, ethyl or propyl (normal or iso) group but not further carbon atoms. | |
| e.g. Methylphosphonyl dichloride | (676-97-1) |
| Dimethyl methylphosphonate | (756-79-6) |
| Exemption: Fonofos:0-Ethyl S-phenyl Ethylphosphonothiolothionate | (944-22-9) |
| 5. N, N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides | |
| 6. Dialkyl (Me, Et, n-Pr or i-Pr) N, N-dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidates | |
| 7. Arsenic trichloride | (7784-34-1) |
| 8. 2, 2-Diphenyl-2-hydroxyacetic acid | (76-93-7) |

9. Quinuclidin-3-ol (1619-34-7)
10. N, N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides, and corresponding protonated salts
11. N, N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols, and corresponding protonated salts.
- Exemption: N, N-Dimethylaminoethanol and corresponding protonated salts (108-01-0)
- Exemption: N, N-Diethylaminoethanol and corresponding protonated salts (100-37-8)
12. N, N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols, and corresponding protonated salts
13. Triethdiglycol: Bis(2-hydroxyethyl) sulfide (111-48-8)
14. Pinacolyl alcohol: 3, 3-Dimethylbutane-2-ol (464-07-3)

SCHEDULE3
CHEMICALS

Companies or institutions must declare if they have been involved in the previous calendar year in producing *3 tonnes or more* of any chemical listed in Schedule 3 as a chemical, or in a mixture that contains 25% or more of the Schedule 3 chemical by weight. Companies must also declare if they are involved in importing or exporting any amount of a mixture *that is not a consumer product*, which contains 25% or more of a Schedule 3 chemical by weight.

CHEMICAL NAME **CAS REGISTRY NUMBER**

A. Toxic Chemicals

Phosgene - Carbonyl dichloride	(75-44-5)
Cyanogen chloride	(506-77-4)
Hydrogen cyanide	(74-90-8)
Chloropicrin - Trichloronitromethane	(76-06-2)

B. Precursors

Phosphorus oxychloride	(10025-87-3)
Phosphorus trichloride	(7719-12-2)
Phosphorus pentachloride	(10026-13-8)
Trimethyl phosphite	(121-45-9)
Triethyl phosphite	(122-52-1)
Dimethyl phosphite	(868-85-9)
Diethyl phosphite	(762-04-9)
Sulphur monochloride	(10025-67-9)
Sulphur dichloride	(10545-99-0)
Thionyl chloride	(7719-09-7)
Ethyldiethanolamine	(139-87-7)
Methyldiethanolamine	(105-59-9)
Triethanolamine	(102-71-6)