

Australian Government

Australian Safeguards and Non-Proliferation Office

# The Chemical Weapons Convention

A GUIDE FOR AUSTRALIAN INDUSTRY PRODUCING, USING OR TRADING CHEMICALS 2014



# DOES THE CWC AFFECT YOU?

If you produce, use, import or export chemicals listed in the Chemical Weapons Convention (CWC), namely, CWC-Scheduled chemicals (Annex 1), or produce large quantities of unscheduled discrete organic chemicals (DOCs), you may need to:

- apply for a chemical facility permit or import/export permit free of charge;
- register DOC-production facilities for notification purposes;
- report chemical activities on an annual or twice-yearly basis;
- allow routine chemical facility inspections by designated government and international officials; and
- take measures to protect against unauthorised access to CWC-Scheduled chemicals.

The associated permit and notification systems place no direct cost and minimal administrative burden on industry. Refer to the Summary of Obligations (Annex 3) for a quick reference guide.

New applicants can download application and notification forms from http://www.dfat.gov.au/cwco/.

From 2014, existing users will have access to a secure online portal which allows them to report past and anticipated chemical activities and trade in CWC-Scheduled chemicals, submit annual notifications of DOC production, and seek renewals for facility and import permits.

# **CWC SNAPSHOT**

The Chemical Weapons Convention (CWC) is an international disarmament treaty that bans the development, production, possession and use of chemical weapons. The CWC also requires the complete and verifiable destruction of existing chemical weapon stockpiles.

A number of chemicals produced or used for normal industrial, medical or research purposes can also be used to produce chemical weapons. To provide assurance to the international community of compliance with treaty obligations, each CWC Member Country must:

- declare information on certain chemical activities to the Organisation for the Prohibition of Chemical Weapons (OPCW) - the international organisation responsible for verifying compliance with the CWC; and
- (ii) permit the OPCW to inspect declared chemical facilities to confirm that on-site activities are consistent with declarations, and the facility is not being used to produce chemical warfare agents or undeclared CWC-Scheduled chemicals.

The CWC is principally implemented in Australia through the Chemical Weapons (Prohibition) Act 1994, administered by the Australian Safeguards and Non-Proliferation Office within the Department of Foreign Affairs and Trade.

# **The Chemical Weapons Convention**

# A GUIDE FOR AUSTRALIAN INDUSTRY PRODUCING, USING OR TRADING CHEMICALS

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# INTRODUCTION TO THE CHEMICAL WEAPONS CONVENTION

The Chemical Weapons Convention (CWC) is the common name for the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction. The CWC is an international treaty that seeks to eliminate chemical weapons in a verifiable manner, and to prevent their re-emergence. The Convention requires that all existing stockpiles of chemical weapons be destroyed. It also requires that certain industrial and research activities are subject to verification measures to provide assurance to the international community that chemicals are not being diverted for chemical weapons purposes. The CWC primarily addresses national weapons programs, and indirectly, the threat of chemical terrorism.

The CWC was opened for signature on 13 January 1993. Australia signed the Convention in January 1993 and was among the first countries to ratify it, in May 1994. The Convention entered into force on 29 April 1997, and is implemented at the international level by the Organisation for the Prohibition of Chemical Weapons (OPCW), based in The Hague, the Netherlands.

To demonstrate compliance with the CWC, each Member Country must:

- destroy any chemical weapons in its possession within specific timeframes set by the Convention;
- declare information on certain chemical activities to the OPCW; and
- allow the OPCW to inspect relevant chemical facilities.

Each CWC Member Country has the right, subject to the provisions of the CWC, to develop, produce, otherwise acquire, retain, transfer and use toxic chemicals and their precursors for purposes not prohibited under the Convention (e.g., for industrial agricultural, research, medical, pharmaceutical or any other peaceful purposes).

# AUSTRALIA'S NATIONAL AUTHORITY

To ensure the CWC is implemented effectively, all Member Countries are required to designate a National Authority as a focal point for liaison with the OPCW and with the National Authorities of other Member Countries.

The Australian Safeguards and Non-Proliferation Office (ASNO), within the Department of Foreign Affairs and Trade, is the National Authority for Australia. ASNO helps ensure that Australia meets its international obligations under the CWC, while protecting commercial and national interests. Its responsibilities include:

- administering related legislation;
- collecting data on relevant chemical activities from domestic stakeholders, and 'declaring' this information to the OPCW;
- facilitating OPCW inspections;
- providing technical advice to inform Government policy; and
- promoting best practice in the implementation of the Convention both regionally and internationally.

# **CHEMICALS RELEVANT TO THE CWC**

Chemical weapons rely on the toxic properties of chemical substances to cause harm and death. Based on their mode of action, chemical warfare agents can be categorised into four classes: choking, blister, blood and nerve agents. For more information, refer to the OPCW website (http://www.opcw.org).

#### **CWC-Scheduled Chemicals**

Under the CWC, certain toxic chemicals (including chemical warfare agents) and key precursors are grouped into three Schedules according to the scale on which they are used for peaceful purposes, and the verification measures applied. Toxic chemicals are listed in Part A of each Schedule, and precursors in Part B.

- Schedule 1 chemicals are the most toxic of the CWC-Scheduled chemicals. They consist primarily of chemical warfare agents, including the nerve agents sarin, soman, tabun and VX as well as and blister agents such as sulphur mustard. Under the Convention, these may be produced or used only for research, medical, pharmaceutical or protective purposes. Legitimate use of these chemicals in Australia is very limited.
- **Schedule 2** includes toxic chemicals (2A) and precursors (2B) to Schedule 1 chemicals. These have no large-scale industrial application, but may have legitimate small-scale uses. Examples include dimethyl methylphosphonate, a nerve agent precursor also used as a flame retardant, and thiodiglycol, a sulphur mustard precursor widely used as a solvent in inks.
- Schedule 3 also includes toxic chemicals (3A) and precursors (3B) to Schedule 1 chemicals. Two of the former – phosgene and chloropicrin - were used as chemical weapons in World War I. This group of chemicals has legitimate large-scale industrial uses - for example, phosgene is now used in the manufacture of plastics, and chloropicrin as a fumigant.

To identify CWC-Scheduled chemicals, refer to the lists in Annex 1 and on ASNO's website. The OPCW Scheduled Chemicals Database (https://apps.opcw.org/CAS/ chemicals.aspx) provides a comprehensive resource.

#### **Discrete Organic Chemicals**

Discrete Organic Chemicals (DOCs) are unscheduled chemicals, defined as compounds of carbon, except for its oxides, sulphides and metal carbonates, identifiable by chemical name, by structural formula (if known), and by Chemical Abstracts Service (CAS) registry number, if assigned. Examples include alcohols, aldehydes (e.g., formaldehyde), ethers, amines, ethylene oxide, urea, fertilisers (e.g., glyphosate salts) and pesticides. DOCs containing one of more of the elements phosphorus, sulphur or fluorine are referred to as PSF-DOCs.

Facilities producing DOCs must be declared to the OPCW as they may have chemical production or processing equipment capable of manufacturing chemical warfare agents.

# HOW THE CWC AFFECTS INDUSTRY, RESEARCH AND MEDICINE

As noted above, many CWC-Scheduled chemicals have legitimate applications in industry, research and medicine. Moreover, the types of chemical processes involved in producing chemical warfare agents are commonly used in the commercial production of chemicals.

The CWC permits the peaceful use of Scheduled chemicals, but subjects facilities that produce or use them to verification measures to ensure that neither facilities nor chemicals are used for purposes prohibited by the Convention. Indeed, commercial chemical facilities have been used in past offensive chemical weapons programs by various countries around the world.

The Convention provides for a dual approach to verification. Member Countries must:

- make annual declarations to the OPCW on relevant chemical activities and respective facilities; and
- allow routine on-site inspections of declared facilities by the OPCW to ensure activities are consistent with declared information, and the facilities are not being used for purposes prohibited by the Convention.

Australia declares information on the production, use, import and export of CWC-Scheduled chemicals, as well as the production of large quantities of unscheduled DOCs (see Table 1). Accordingly, facility operators are required to make annual or twice-yearly activity reports to ASNO (see pages 6-7), and importers/exporters to report their international trade in CWC-Scheduled chemicals (see page 9). This information is incorporated into Australia's declarations to the OPCW. Facilities may also be subject to OPCW inspections (see page 8). Information obtained from industry, and activities observed during inspections, are protected by national and international confidentiality requirements.



#### **TABLE 1: Summary of declarable activities**

| Chemical   | Declarable activities  | Applications   |
|--|--|--|
| Schedule 1<br>High risk chemicals with<br>limited use. Includes<br>chemical weapon (CW)<br>agents.   | <ul> <li>Small-scale production<sup>1</sup></li> <li>Small-scale consumption<sup>1</sup></li> <li>Acquisition, retention and/or domestic transfers</li> <li>Import</li> <li>Export</li> </ul>  | <ul> <li>Medical and diagnostic uses</li> <li>Defence research purposes<br/>(eg testing protective clothing)</li> </ul>  |
| Schedule 2<br>Medium risk chemicals<br>with some industrial use.<br>Includes key CW<br>precursors.   | <ul> <li>Industrial-scale production<sup>1</sup></li> <li>Industrial-scale consumption<sup>1</sup></li> <li>Industrial-scale processing<sup>1</sup></li> <li>Import</li> <li>Export</li> </ul> | <ul> <li>Textiles and polyurethane foam<br/>(flame retardants)</li> <li>Agriculture<br/>(pesticides, herbicides)</li> <li>Photography (dyes)</li> <li>Pharmaceuticals<br/>(anticholinergics, tranquilisers)</li> <li>Antifreeze additives</li> </ul>                       |
| Schedule 3<br>Lower risk chemicals<br>with wide industrial use.<br>Includes CW agents used<br>in World War I and key<br>CW precursors.                                 | <ul> <li>Industrial-scale production<sup>1</sup></li> <li>Import</li> <li>Export</li> </ul>  | <ul> <li>Cosmetics (surfactants, buffers)</li> <li>Pharmaceuticals (active ingredients, surfactants)</li> <li>Agriculture (pesticides)</li> <li>Mining (natural gas treatment, ore-extraction processes)</li> <li>Automotive products</li> <li>Cement additives</li> </ul> |
| Other chemical<br>production of <b>Discrete</b><br><b>Organic Chemicals</b><br>(DOCs), including those<br>containing phosphorus,<br>sulphur and fluorine<br>(PSF-DOCs) | Industrial-scale production <sup>1</sup>   | <ul> <li>Agricultural (pesticides,<br/>herbicides, fertilisers)</li> <li>Cosmetics (surfactants, buffers)</li> <li>Inks and dyes</li> <li>Plastics (synthesis of monomers<br/>for polymerisation)</li> </ul>   |

<sup>1</sup>Refer to glossary for definitions.

# **AUSTRALIAN LEGISLATION**

Australia implements its CWC obligations through the following legislation and associated regulations. These are available through the Attorney-General's Department ComLaw website (www.comlaw.gov.au).

- The Chemical Weapons (Prohibition) Act 1994;
- The Chemical Weapons (Prohibition) Regulations 1997;
- The *Customs Act 1901;*
- The Customs (Prohibited Imports) Regulations 1956 (5J); and
- The Customs (Prohibited Exports) Regulations 1958 (13E).

These laws enable the Australian Government to enforce the ban on chemical weapons, obtain information from relevant facilities on activities declarable under the CWC, and regulate imports and exports of CWC-Scheduled chemicals. They also allow for OPCW inspections of declared chemical facilities.

# FACILITY PERMITS AND NOTIFICATIONS

Under the *Chemical Weapons (Prohibition) Act 1994,* Australia operates a system of **facility permits** and **notifications** for chemicals and activities subject to CWC verification provisions.

#### **Permits**

There are several types of facility permit, depending on the Scheduled chemical and type of activity. As outlined in Table 2, a facility requires a permit if it:

- produces any amount of a Schedule 1 chemical, or acquires, retains, uses or transfers above 100 grams per annum of a Schedule 1 chemical;<sup>1</sup>
- produces, processes or consumes a Schedule 2 chemical above the annual threshold (1 tonne for Schedule 2B chemicals); or
- produces more than 30 tonnes per annum of a **Schedule 3** chemical.



Applications for facility permits must be made to ASNO at least **21 days** before activities commence. Permit application forms can be downloaded from ASNO's website, or accessed through the secure online portal. Required information includes facility identification and location (GPS coordinates); number of relevant plants; and CWC-relevant activities, including quantities of chemical production, processing and consumption.

Permits are granted for periods up to one year, but may be renewed on an annual basis for a further four years, provided all permit conditions are met.

To renew a permit beyond five years, permit holders must submit a new application when prompted by ASNO.

**Annual reporting requirements**. Each year, Australia is required to declare relevant activities undertaken during the preceding calendar year ('past activities') and activities it expects to undertake the following year ('anticipated activities'). Accordingly, permit holders must report to ASNO twice yearly. Data on activities during the preceding calendar year are due by 28 February, while estimates for the following year are due in September (Schedule 1) and October (Schedules 2 and 3).

Schedule 2 facilities falling below the 1 tonne annual threshold do not require a permit, but operators must report annually on their 'past' activities over the preceding year.

To help facilities meet their reporting requirements, ASNO sends reminders ahead of the due date.

<sup>&</sup>lt;sup>1</sup> Where the Schedule 1 chemical is used for research, medical or pharmaceutical purposes.

#### **Notifications**

Facilities producing **unscheduled DOCs** do not require a facility permit. However, operators of these facilities are required to make an annual notification if they produce more than 200 tonnes (in total) of DOCs, or more than 30 tonnes of any one PSF-DOC, in any calendar year. Notifications regarding activities during the previous calendar year must be made by the end of February. Required information includes facility identification and location (GPS coordinates); DOCs produced, including production quantities; other chemicals produced; and other activities undertaken at the site. Notification forms are available on ASNO's website or via the secure online portal.

The following types of DOC facility are exempt from declaration and notification requirements:

- facilities that produce polymers with no single structural formula (note, however, that monomer production is declarable);
- facilities that exclusively produce hydrocarbons;
- plant sites that exclusively produce explosives; and
- breweries, distilleries and wineries.

# TABLE 2:Regulatory scheme for production and use of CWC-Scheduled chemicals<br/>and DOCs (see Annex 3 for a summary of industry obligations).

| Chamical                 | Activity                                    | Threshold            | Threshold Regulatory |              | Reporting             |  |
|--------------------------|---|----------------------|----------------------|--------------|-----------------------|--|
| Chemical                 | ACLIVILY                                    | Threshold            | requirement          | Frequency    | Timing                |  |
|                          | Production                                  | zero                 |                      |              |                       |  |
| Schedule 1 <sup>1</sup>  | Acquisition<br>Retention<br>Use<br>Transfer | 100 grams            | Facility permit      | Twice yearly | February<br>September |  |
| Schedule 2B <sup>2</sup> | Production<br>Consumption                   | 1 tonne              | Facility permit      | Twice yearly | February<br>October   |  |
|                          | Processing                                  | Less than<br>1 tonne | N/A                  | Annual       | February              |  |
| Schedule 3               | Production                                  | 30 tonnes            | Facility permit      | Twice yearly | February<br>October   |  |
| DOC-PSF                  | Production                                  | 30 tonnes            | Notification         | Annual       | February              |  |
| DOC                      | Production                                  | 200 tonnes           | Notification         | Annual       | February              |  |

<sup>1</sup> Where the Schedule 1 chemical is to be used for research, medical or pharmaceutical purposes.

<sup>2</sup> *Schedule 2A* chemicals have different requirements but are not produced or used commercially in Australia.

There are no direct costs to industry for the issue of permits or other regulatory activities undertaken by ASNO. The associated administrative burden on industry is low, permits are issued quickly and ASNO constantly strives to streamline the system.

# **FACILITY INSPECTIONS**

The *Chemical Weapons (Prohibition) Act 1994* provides for facility inspections by officials from ASNO and from the OPCW. OPCW inspections seek to verify that on-site activities are consistent with the information in Australia's declaration, and that the facility is not engaging in activities prohibited by the Convention. Normal plant operations should not be affected by inspections.

ASNO also conducts industry on-site outreach visits and seminars which focus on compliance with Australian legislation and aim to better inform facility representatives about the OPCW inspection process.

Facilities are selected for OPCW inspections in accordance with the provisions of the Convention. Not all declared facilities are eligible for selection, as they must first meet chemical activity thresholds (Annex 2).



ASNO usually receives one week's notice of an upcoming OPCW inspection, and immediately informs the facility operator. ASNO representatives provide advice and on-site assistance with facility preparation. During the inspection, ASNO officials act as an intermediary between the OPCW inspection team and the site representatives so as to ensure Australia's international treaty obligations are met while also protecting the rights of the facility and the confidentiality of its information.

OPCW inspections are typically conducted by 2-3 inspectors from the OPCW's Technical Secretariat, who are accompanied at all times by ASNO officers and site representatives. Inspections take 2-3 days, and commence with a briefing on the facility's operations, followed by a site tour. OPCW inspectors then inspect

the declared plant and related infrastructure and examine relevant plant records so as to verify the accuracy of declared information and the absence of undeclared Schedule 1 chemicals. OPCW inspectors are chemical and chemical engineering professionals drawn from a range of CWC member countries. They are employed full-time by the OPCW and work under strict rules governing the protection of confidential information.

The likelihood of an inspection and intensity of the inspection process depend on the chemicals and activities involved. OPCW inspections at Schedule 1 facilities are the most thorough, with the intensity decreasing through Schedule 2, Schedule 3 and DOC facilities. Overall, ASNO has facilitated an average of four OPCW inspections a year since the CWC entered into force in 1997. On each occasion, declared information was verified and there have been no issues requiring further attention.

The brochure *Chemical Weapons Convention: Inspection Information for Producers of Chemicals 2014* is a useful reference for facilities preparing for inspections, and is available on request or from the ASNO website (www.dfat.gov.au/cwco).

# INTERNATIONAL TRADE IN CWC-SCHEDULED CHEMICALS

Under the *Customs Act 1901,* Australia regulates both imports and exports of CWC-Scheduled chemicals. This enables collection of data required by the OPCW, and ensures that prohibited trade does not occur.

#### **Import Permits**

Regulation 5J of the Customs (Prohibited Imports) Regulations 1956 prohibits the import



of CWC-Scheduled chemicals unless permission is granted, in writing, by the Minister for Foreign Affairs or an authorised person. Permission to import is given in the form of a permit issued, on behalf of the Minister, by ASNO. Import permit requirements are outlined in *The Chemical Weapons Convention: Guidelines for Importers and Exporters 2014* brochure, available on request or from the ASNO website.

Separate permits are issued for the import of Schedule 1 and Schedule 2/3 chemicals. Schedule 1 permits are valid for a single import, and applications must be received at least 37 days before the shipment arrives. Schedule 2/3 permits are valid for multiple shipments over the life of the permit (up to one year), and applications must be received at least seven days in advance of the first shipment. **Issue of permits is free of charge**.

As a condition of export, some countries may request an end-user declaration stating that the chemicals will be used for purposes not prohibited by the CWC and that they will not be transferred to a third country. ASNO can assist with this request.

#### **Export Permissions**

Regulation 13E of the Customs (Prohibited Exports) Regulations 1958 prohibits the export of all CWC-Scheduled chemicals unless permission is granted, in writing, by the Minister for Defence or by an authorised person. Permission to export is given in the form of a permit or licence issued, on the Minister's behalf, by the Defence Export Control Office (DECO) in the Department of Defence. A permission issued by DECO is an approval to export specified quantities of controlled chemicals to an approved consignee at a particular destination.

Permissions for Schedule 1 chemicals are valid for a single export, and applications must be received at least 37 days in advance. For export of Schedule 2/3 chemicals, permission may be granted for either single or multiple shipments, as requested by the applicant. Multi-shipment permissions are valid for up to two years. Routine applications are generally processed within 15 working days. However, exports considered to be sensitive are referred to the Standing Interdepartmental Committee on Defence Exports (SIDCDE), with an assessment time of up to 35 working days. DECO will inform applicants of the referral.

Exporters should refer to the DECO website (http://www.defence.gov.au/deco) for more information and for export-related forms. Inquiries may be made to DECO by phone (1800 66 10 66) or email (DECO@defence.gov.au).

### **Other Chemicals Requiring Export Permissions**

Australia regulates the export of a number of chemicals not listed in the three CWC Schedules, which have potential for use as chemical weapons, as precursors in the manufacture of chemical weapons, or in missile or nuclear programs (see Annex 2). This arises from Australia's active participation in export control regimes, listed below, which restrict trade in materials with potential for use in weapons of mass destruction programs. Exporters of these chemicals must obtain permission from DECO.

- The **Australia Group** (www.australiagroup.net) is an informal network of countries seeking to harmonise their export controls on materials and equipment that could be diverted into chemical and biological weapons programs. While there is overlap between Australia Group-controlled chemicals and the three CWC Schedules, a number of chemicals are listed only by the Australia Group.
- The **Nuclear Suppliers Group** (www.nuclearsuppliersgroup.org) aims to ensure that trade in nuclear materials for peaceful purposes does not contribute to the proliferation of nuclear weapons.
- The **Wassenaar Arrangement** (www.wassenaar.org/) promotes transparency and responsibility in international transfers of conventional arms and dual use goods and technologies, so as to support global security and stability.
- The **Missile Technology Control Regime** (www.mtcr.info/english/index.html) is an informal group of countries seeking to coordinate national export controls aimed at preventing the proliferation of missiles capable of delivering weapons of mass destruction.

United Nations Security Council and Australian autonomous sanctions also restrict the supply of proliferation-sensitive goods and military items to certain countries. For information on sanctions and the countries to which they apply, see http://www.dfat.gov.au/un/unsc\_sanctions.

#### Using import/export classification codes

All goods entering or leaving Australia require classification using import tariff and export commodity (AHECC) codes. These are based on the international Harmonized Commodity Description and Coding System developed by the World Customs Organisation and used to track the movement of internationally-traded goods. In Australia, unique codes have been assigned to many of the CWC-Scheduled chemicals, and these should be used where available. However, for Schedules 1 and 2, where whole classes of chemicals are listed, codes have been assigned only to the most commonly known or traded examples. For chemicals without a unique code, the general code applying to that class should be used.

Import tariff and AHECC codes for CWC-Scheduled chemicals are provided in Annex 1 and on ASNO's website, while AHECC codes for other controlled chemicals for export are listed in Annex 2. More information about applying import tariff and AHECC codes can be found in *The Chemical Weapons Convention: Guidelines for Importers and Exporters of Chemicals 2014* brochure.

For more information on tariff classifications or AHECC codes, please contact the Customs Information and Support Centre (CI&SC) by phone (1300 363 263) or email (information@customs.gov.au), or visit the ACBPS website (www.customs.gov.au).

# **SECURITY MEASURES**

Facility and import permits require that ASNO be advised of security measures implemented for non-proliferation and counter-terrorism purposes. It is in the national interest to prevent diversion of chemicals that could be used for hostile purposes, and importers/users of dangerous chemicals are expected to ensure their security. Permit holders must:

- provide ASNO with a description of security measures in place for the physical protection of stored CWC-Scheduled chemicals;
- immediately notify ASNO, the National Security Hotline (1800 123 400) and other relevant authorities of any unexplained loss, theft or suspicious incidents involving CWC-Scheduled chemicals;

ASNO also recommends adequate stock auditing; ensuring chemical sales are to *bona fide* companies and not intended for purposes prohibited under the *Chemical Weapons (Prohibition) Act 1994*; and adhering to relevant guidelines, such as the National Code of *Practice for Chemicals of Security Concern*.

# **NON-COMPLIANCE**

The *Chemical Weapons (Prohibition) Act 1994* and the *Customs Act 1901* enable Australia to meet its obligations under the CWC, and therefore penalties apply for non-compliance. Penalties may apply to:

- facility operators who produce or use CWC-Scheduled chemicals without a valid permit;
- permit holders who contravene a permit condition, such as not meeting reporting obligations, without a reasonable explanation;
- facility operators who fail to notify production of Discrete Organic Chemicals (DOCs); and
- facility operators or traders who do not obtain an import or export permission for international trade in CWC-Scheduled chemicals.

The *Chemical Weapons (Prohibition) Act 1994* also prohibits activities connected to the development, production and use of chemical weapons, including assisting anyone else engaged in these activities, whether intentionally or not. Such offences are punishable by life imprisonment.

# RESOURCES

#### **Documents**

Reference documents available via ASNO's website (www.dfat.gov.au/cwco) include:

- Australian Safeguards and Non-Proliferation Office Annual Reports;
- Chemical Weapons (Prohibition) Act 1994;
- Chemical Weapons (Prohibition) Regulations 1997;
- Customs (Prohibited Exports) Regulations 1958 (13E);
- Customs (Prohibited Imports) Regulations 1956 (5J);
- The Chemical Weapons Convention (CWC);
- The CWC: Information for Importers and Exporters of Chemicals 2014 brochure; and
- The CWC: Inspection Information for Producers and Users of Chemicals 2014 brochure.

#### Websites

#### Australian Government

Australian Bureau of Statistics www.abs.gov.au Australian Customs and Border Protection www.customs.gov.au Service Australian Safeguards and www.dfat.gov.au/cwco Non-Proliferation Office (ASNO) Chemicals of Security Concern www.chemicalsecurity.gov.au Commonwealth Government Legislation www.comlaw.gov.au Defence and Strategic Goods List (DSGL) www.defence.gov.au/deco/DSGL.asp Defence Export Control Office (DECO) www.defence.gov.au/deco Department of Foreign Affairs and Trade: www.dfat.gov.au/security Non-Proliferation, Arms Control and Disarmament Sanctions www.dfat.gov.au/un/unsc\_sanctions

#### International organisations, regimes and treaties

- The Australia Group
- The Missile Technology Control Regime
- The Nuclear Suppliers Group
- The Organisation for the Prohibition of Chemical Weapons (OPCW)
- The Wassenaar Arrangement (see Category 1 control list)

www.australiagroup.net www.mtcr.info/english/index.html www.nuclearsuppliersgroup.org www.opcw.org

www.wassenaar.org

#### Other useful links

 Chemical Business Checklist
 Chemical Information Gateway
 CWC Implementation Assistance Programme
 OPCW e-Learning Modules
 OPCW Scheduled Chemicals Database
 Www.industry.gov.au/ChemicalsChecklist apps5a.ris.environment.gov.au/pubgate/ cig\_public/!CIGPPUBLIC.pStart?category\_id=7
 iap.cwc.gov
 www.opcw.org/opcw-e-learning
 https://apps.opcw.org/CAS/chemicals.aspx

#### GLOSSARY Australian Customs and Border Protection Service<sup>2</sup> **ACBPS** AHECC Australian Harmonized Export Commodity Classification ASNO The Australian Safeguards and Non-Proliferation Office, Australia's CWC National Authority within the Department of Foreign Affairs and Trade **CAS Number** Chemical Abstracts Service registry number Conversion of one chemical into another through a chemical Consumption reaction. **CWC** Chemical Weapons Convention - common name for the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction DECO The Defence Export Control Office, within the Department of Defence DFAT The Department of Foreign Affairs and Trade DOC A Discrete Organic Chemical is defined as any discrete compound of carbon except for its oxides, sulfides and metal carbonates. Producers of DOCs above certain threshold levels are subject to a notification scheme. Certain facilities are exempt from reporting requirements - those that produce polymers with no single structural formula, those that exclusively produce hydrocarbons or explosives, as well as breweries, distilleries and wineries. **OPCW** The Organisation for the Prohibition of Chemical Weapons Processing A physical process, including formulation, extraction or purification, in which the chemical is not converted to another chemical. Processing does not include packaging or distributing the chemical. **Production** Formation of a chemical through a chemical reaction, including as an intermediate in a reaction sequence (but only where the intermediate can be isolated). Production of the Schedule 1 chemicals saxitoxin and ricin also includes extraction and purification from natural sources. All production of chemicals above required threshold quantities should be reported, including where produced only as intermediates and irrespective of whether or not they are isolated and/or sold commercially. **PSF-DOC** Discrete organic chemical containing one or more of the elements of phosphorus, sulphur or fluorine.

<sup>&</sup>lt;sup>2</sup> From 1 July 2015, the Australian Customs and Border Protection Service and the Department of Immigration and Border Protection will be consolidated into a single Department of Immigration and Border Protection.

# **ANNEX 1** CWC-Scheduled Chemicals

# **CWC SCHEDULE 1 CHEMICALS**

Some common names are shown in italics following the chemical name.

| Cher | Chemical name   |             | Import<br>tariff code | AHECC      |
|------|---|-------------|-----------------------|------------|
| A.   | Toxic chemicals   | number      | turini couc           | coue       |
| 1.1  | O-Alkyl (< C10, including cycloalkyl) alkyl (Me, Et, <i>n</i> -Pr or <i>i</i> -Pr) phosphonofluoridates. eg:  |             | 2931.90.90.14         | 2931.90.13 |
|      | • Sarin: O-Isopropyl methylphosphonofluoridate  | 107-44-8    | 2931.90.90.11         | 2931.90.11 |
|      | • Soman: O-Pinacolyl methylphosphonofluoridate  | 96-64-0     | 2931.90.90.12         | 2931.90.12 |
| 1.2  | O-Alkyl (< C10, including cycloalkyl) N,N-dialkyl (Me, Et,<br><i>n</i> -Pr or <i>i</i> -Pr)-phosphoramidocyanidates. eg:  |             | 2931.90.90.22         | 2931.90.23 |
|      | • Tabun: O-Ethyl N,N-dimethyl phosphoramidocyanidate  | 77-81-6     | 2931.90.90.21         | 2931.90.22 |
| 1.3  | O-Alkyl (H or < C10, including cycloalkyl) S-2-dialkyl (Me,Et, <i>n</i> -Pr or <i>i</i> -Pr)-aminoethyl alkyl (Me, Et, n-Pr or i-Pr) phosphonothiolates and corresponding alkylated and protonated salts. eg: |             | 2930.90.00.37         | 2930.90.19 |
|      | • VX: O-Ethyl S-[2 (diisopropylamino)ethyl]methyl phosphonothiolate   | 50782–69–9  | 2930.90.00.36         | 2930.90.11 |
| 1.4  | Sulfur mustards:  |             |                       |            |
|      | • 2-Chloroethylchloromethylsulfide  | 2625-76-5   | 2930.90.00.49         | 2930.90.20 |
|      | • Bis(2-chloroethyl)sulphide (mustard gas (H))  | 505-60-2    | 2930.90.00.45         | 2930.90.21 |
|      | • Bis(2-chloroethylthio)methane   | 63869–13–6  | 2930.90.00.51         | 2930.90.22 |
|      | • 1,2-Bis(2-chloroethylthio)ethane ( <i>sesquimustard</i> )   | 3563-36-8   | 2930.90.00.52         | 2930.90.23 |
|      | • 1,3-Bis(2-chloroethylthio)-n-propane  | 63905-10-2  | 2930.90.00.53         | 2930.90.24 |
|      | • 1,4-Bis(2-chloroethylthio)-n-butane   | 142868–93–7 | 2930.90.00.54         | 2930.90.25 |
|      | • 1,5-Bis(2-chloroethylthio)-n-pentane  | 142868–94–8 | 2930.90.00.55         | 2930.90.26 |
|      | • Bis(2-chloroethylthiomethyl)ether   | 63918–90–1  | 2930.90.00.56         | 2930.90.27 |
|      | • Bis(2-chloroethylthioethyl)ether ( <i>O</i> -mustard ( <i>T</i> ))  | 63918–89–8  | 2930.90.00.57         | 2930.90.28 |
| 1.5  | Lewisites:  |             |                       |            |
|      | Lewisite 1: 2-Chlorovinyldichloroarsine   | 541-25-3    | 2931.90.90.23         | 2931.90.24 |
|      | • Lewisite 2: Bis(2-chlorovinyl)chloroarsine  | 40334-69-8  | 2931.90.90.24         | 2931.90.25 |
|      | • Lewisite 3: Tris(2-chlorovinyl)arsine   | 40334-70-1  | 2931.90.90.25         | 2931.90.26 |
| 1.6  | Nitrogen mustards:  |             |                       |            |
|      | • HN1: Bis(2-chloroethyl)ethylamine   | 538-07-8    | 2921.19.00.33         | 2921.19.11 |
|      | • HN2: Bis(2-chloroethyl)methylamine ( <i>mustine</i> )   | 51-75-2     | 2921.19.00.34         | 2921.19.12 |
|      | • HN3: Tris(2-chloroethyl)amine ( <i>trimustine</i> )   | 555-77-1    | 2921.19.00.35         | 2921.19.13 |
| 1.7  | Saxitoxin   | 35523-89-8  | 3002.90.00.10         | 3002.90.20 |
| 1.8  | Ricin   | 9009-86-3   | 3002.90.00.11         | 3002.90.30 |
| B.   | Precursors  |             |                       |            |
| 1.9  | Alkyl (Me, Et, n-Pr or i-Pr) phosphonyl difluorides. eg:  |             | 2931.90.90.33         | 2931.90.34 |
|      | • Methylphosphonyl difluoride (DF)  | 676–99–3    | 2931.90.90.31         | 2931.90.32 |
|      | Ethylphosphonyl difluoride  | 753–98–0    | 2931.90.90.32         | 2931.90.33 |
| 1.10 | O-Alkyl (H or < C10, incl. cycloalkyl) O-2-dialkyl (Me, Et,<br><i>n</i> -Pr or <i>i</i> -Pr)-aminoethyl alkyl (Me, Et, n-Pr or i-Pr)<br>phosphonites and corresponding alkylated and protonated<br>salts. eg: |             | 2931.90.90.42         | 2931.90.42 |
|      | • QL: O-ethyl O-[2-<br>(diisopropylamino)ethyl]methylphosphonite  | 57856-11-8  | 2931.90.90.41         | 2931.90.41 |
| 1.11 | Chlorosarin: O-Isopropyl methylphosphonochloridate  | 1445-76-7   | 2931.90.90.43         | 2931.90.43 |
| 1.12 | Chlorosoman: O-Pinacolyl methylphosphonochloridate  | 7040-57-5   | 2931.90.90.44         | 2931.90.44 |

Some trade names, and commercial products containing Schedule 2 chemicals, are shown in italics following the chemical name and also listed at the end of this section. Commonly-traded chemicals are shown in blue text.

| Che | mical name  | CAS<br>number | Import tariff<br>code | AHECC<br>code |
|-----|---|---------------|-----------------------|---------------|
| A.  | Toxic Chemicals   |               |                       |               |
| 2.1 | Amiton: O,O-Diethyl S-[2-(diethylamino)ethyl] phosphorothiolate and corresponding alkylated and protonated salts.   | 78–53–5       | 2930.90.00.58         | 2930.90.29    |
| 2.2 | PFIB: 1,1,3,3,3-pentafluoro-2-(trifluoromethyl)-1-propene   | 382-21-8      | 2903.39.00.33         | 2903.39.05    |
| 2.3 | BZ: 3-Quinuclidinyl benzilate   | 6581-06-2     | 2933.39.00.61         | 2933.39.20    |
| B.  | Precursors  |               |                       |               |
| 2.4 | Chemicals, except for those listed in Schedule 1,<br>containing a phosphorus atom to which is bonded one<br>methyl, ethyl or propyl (normal or iso) group |               | 2931.90.90.78         | 2931.90.74    |
|     | Ethylphosphonic dichloride  | 1066-50-8     | 2931.90.90.53         | 2931.90.53    |
|     | Methyl methylphosphonate  | 1066-53-1     | 2931.90.90.78         | 2931.90.74    |
|     | Diisopropyl ethylphosphonate  | 1067-69-2     | 2931.90.90.78         | 2931.90.74    |
|     | • 2-Ethylhexyl methylphosphonate  | 13688-82-9    | 2931.90.90.78         | 2931.90.74    |
|     | Diisopropyl methylphosphonate   | 1445-75-6     | 2931.90.90.78         | 2931.90.74    |
|     | • O-Ethyl ethylphosphonothionochloridate  | 1497-68-3     | 2931.90.90.78         | 2931.90.74    |
|     | Ethylphosphonous dichloride   | 1498-40-4     | 2931.90.90.52         | 2931.90.52    |
|     | Isopropylphosphonic dichloride  | 1498-46-0     | 2931.90.90.78         | 2931.90.74    |
|     | Isopropylphosphonothioic dichloride   | 1498-60-8     | 2931.90.90.78         | 2931.90.74    |
|     | Diethyl isopropylphosphonate  | 1538–69–8     | 2931.90.90.78         | 2931.90.74    |
|     | Diethyl methylphosphonite   | 15715-41-0    | 2931.90.90.54         | 2931.90.54    |
|     | • Mixture of CAS 41203–81–0<br>and CAS 42595–45–9   | 170836-68-7   | 3809.91.00.46         | 3809.91.01    |
|     | Component of certain flame retardants, e.g:<br>Amgard® CU, Antiblaze <sup>TM</sup> CU, Pekoflam PES CN<br>Liquid concentrate, FR-300                      |               | 3809.91.00.46         | 3809.91.01    |
|     | • Methyl(triphenoxy)phosphonium iodide  | 17579–99–6    | 2931.90.90.79         | 2931.90.90    |
|     | O-Ethyl methylphosphonothiolate   | 18005-40-8    | 2931.90.90.78         | 2931.90.74    |
|     | • Ethyl methylphosphonate   | 1832–53–7     | 2931.90.90.78         | 2931.90.74    |
|     | Isopropyl methylphosphonate   | 1832–54–8     | 2931.90.90.78         | 2931.90.74    |
|     | Dimethyl propylphosphonate  | 18755-43-6    | 2931.90.90.72         | 2931.90.72    |
|     | Diethyl propylphosphonate   | 18812-51-6    | 2931.90.90.78         | 2931.90.74    |
|     | Diisopropyl propylphosphonate   | 18812-55-0    | 2931.90.90.78         | 2931.90.74    |
|     | Cyclohexyl methylphosphonate  | 1932-60-1     | 2931.90.90.78         | 2931.90.74    |
|     | • Ethyl S-sodium methylphosphonothiolate  | 22307-81-9    | 2931.90.90.78         | 2931.90.74    |
|     | O-Ethyl S-ethyl methylphosphonothiolate   | 2511-10-6     | 2930.90.00.65         | 2930.90.95    |
|     | Methylphosphonic bis(dimethylamide)   | 2511-17-3     | 2931.90.90.78         | 2931.90.74    |
|     | Isopropylphosphonous dichloride   | 25235-15-8    | 2931.90.90.78         | 2931.90.74    |
|     | Propylphosphonothioic dichloride  | 2524-01-8     | 2931.90.90.78         | 2931.90.74    |
|     | • Bis(2-chloroethyl) methylphosphonate  | 2799–58–8     | 2931.90.90.78         | 2931.90.74    |
|     | • Ammonium hydrogen methylphosphonate   | 34255-87-3    | 2931.90.90.65         | 2931.90.65    |
|     | Diisopropyl isopropylphosphonate  | 3759-39-5     | 2931.90.90.78         | 2931.90.74    |
|     | • (5-ethyl-2-methyl-2-oxido-1,3,2-dioxaphosphinan-<br>5-yl) methyl methyl methylphosphonate   | 41203-81-0    | 2931.90.90.70         | 2931.90.70    |

|     | <b>WC SCHEDULE 2 CHEMICALS</b>  |            |               | Annex 1    |
|-----|---|------------|---------------|------------|
|     | Methylphosphinic acid   | 4206–94–4  | 2931.90.90.78 | 2931.90.74 |
|     | • Bis[(5-Ethyl-2-methyl-2-oxido-1,3,2-<br>dioxaphosphinan-5-yl) methyl] methylphosphonate   | 42595-45-9 | 2931.90.90.71 | 2931.90.71 |
|     | Ethylphosphonous difluoride   | 430-78-4   | 2931.90.90.57 | 2931.90.57 |
|     | Propylphosphonic acid   | 4672-38-2  | 2931.90.90.78 | 2931.90.74 |
|     | Propylphosphonic dichloride   | 4708–04–7  | 2931.90.90.78 | 2931.90.74 |
|     | Pinacolyl methylphosphonate   | 616–52–4   | 2931.90.90.78 | 2931.90.74 |
|     | Dimethyl ethylphosphonate   | 6163-75-3  | 2931.90.90.55 | 2931.90.55 |
|     | Butyl methylphosphinate   | 6172-80-1  | 2931.90.90.78 | 2931.90.74 |
|     | Methylphosphonous dichloride  | 676-83-5   | 2931.90.90.67 | 2931.90.67 |
|     | Methylphosphonic dichloride   | 676–97–1   | 2931.90.90.51 | 2931.90.51 |
|     | Methylphosphonothioic dichloride  | 676–98–2   | 2931.90.90.78 | 2931.90.74 |
|     | Ethylphosphonic acid  | 6779–09–5  | 2931.90.90.78 | 2931.90.74 |
|     | • Bis[3-(trimethoxysilyl)propyl] methylphosphonate  | 67812–18–4 | 2931.90.90.68 | 2931.90.68 |
|     | Methyl 3-(trimethoxysilyl)propyl methylphosphonate  | 67812–17–3 | 2931.90.90.64 | 2931.90.64 |
|     | Diethyl methylphosphonate   | 683–08–9   | 2931.90.90.56 | 2931.90.56 |
|     | • 2,4,6-Tripropyl-1,3,5,2,4,6-trioxatriphosphinane 2,4,6-trioxide   | 68957–94–8 | 2931.90.90.78 | 2931.90.74 |
|     | O,O-Diethyl methylphosphonothionate   | 6996-81-2  | 2931.90.90.78 | 2931.90.74 |
|     | • N,N,N-trimethyl-3-[(1-oxo-9-<br>octadecenyl)amino]methyl methylphosphonate propan-<br>1-aminium"  | 70055–71–9 | 2931.90.90.78 | 2931.90.74 |
|     | Dicyclohexyl methylphosphonate  | 7040 53 1  | 2931.90.90.78 | 2931.90.74 |
|     | Dipinacolyl methylphosphonate   | 7040–58–6  | 2931.90.90.78 | 2931.90.74 |
|     | • Dimethyl methylphosphonate, polymer with phosphorus pentoxide (P <sub>2</sub> O <sub>5</sub> ) and ethylene oxide                                 | 70715–06–9 | 2931.90.90.73 | 2931.90.73 |
|     | Dipropyldiphosphonic acid   | 71760-04-8 | 2931.90.90.78 | 2931.90.74 |
|     | Sodium methyl methylphosphonate   | 73750–69–3 | 2931.90.90.66 | 2931.90.66 |
|     | Methylphosphonous difluoride  | 753–59–3   | 2931.90.90.58 | 2931.90.58 |
|     | Dimethyl methylphosphonate  | 756-79-6   | 2931.90.90.61 | 2931.90.61 |
|     | Diphenyl methylphosphonate  | 7526–26–3  | 2931.90.90.62 | 2931.90.62 |
|     | Diethyl ethylphosphonate  | 78-38-6    | 2931.90.90.59 | 2931.90.59 |
|     | Trade names (flame retardants) include:<br>Antiblaze <sup>TM</sup> V490, Antiblaze 75, Amgard V 490,<br>Levagard AC 4048, Aflammit PLF 822 and DEEP |            | 2931.90.90.59 | 2931.90.59 |
|     | • Mixture: 50% Methylphosphonic acid / 50%<br>(Aminoiminomethyl)urea  | 84402–58–4 | 2931.90.90.69 | 2931.90.69 |
|     | Component of certain flame retardants, e.g.<br>Flammentin MSG and Flovan CGN  |            | 3809.91.00.46 | 3809.91.01 |
|     | • Sodium 3-(trihydroxysilyl)propyl methylphosphonate  | 84962–98–1 | 2931.90.90.63 | 2931.90.63 |
|     | Component of Q1-6083 Antifreeze Additive  |            | 3820.00.00.32 | 3820.00.00 |
|     | Methylphosphonic acid   | 993-13-5   | 2931.90.90.60 | 2931.90.60 |
|     | Ethylphosphonothioic dichloride   | 993-43-1   | 2930.90.00.43 | 2930.90.91 |
|     | <b>Exemption:</b> Fonofos: O-Ethyl S-phenylethylphosphono-<br>thiolothionate  | 944–22–9   | 2930.90.00.61 | 2930.90.41 |
| 2.5 | N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides. eg:  |            | 2929.90.00.41 | 2929.90.19 |
|     | • N,N-Dimethylphosphoramidic dichloride   | 677–43–0   | 2929.90.00.40 | 2929.90.10 |

| CV   | WC SCHEDULE 2 CHEMICALS   |            |               | Annex 1    |
|------|---|------------|---------------|------------|
| 2.6  | Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl (Me, Et, n-Pr or i-Pr)-phosphoramidates. eg:           |            | 2929.90.00.52 | 2929.90.29 |
|      | Diethyl N,N-Dimethylphosphoramidate   | 2404-03-7  | 2929.90.00.51 | 2929.90.20 |
|      | Dimethyl N,N-diethylphosphoramidate   | 65659–19–0 | 2929.90.00.52 | 2929.90.29 |
|      | • Dimethyl N,N-dimethylphosphoramidate  | 597-07-9   | 2929.90.00.52 | 2929.90.29 |
| 2.7  | Arsenic trichloride   | 7784–34–1  | 2812.10.00.35 | 2812.10.10 |
| 2.8  | 2,2-Diphenyl-2-hydroxyacetic acid   | 76–93–7    | 2918.19.00.35 | 2918.19.10 |
| 2.9  | 3-Quinuclidinol   | 1619–34–7  | 2933.39.00.62 | 2933.39.30 |
| 2.10 | N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides and corresponding protonated salts. eg: |            | 2921.19.00.44 | 2921.19.27 |
|      | • 2-(N,N-Diethylamino)ethylchloride hydrochloride   | 869–24–9   | 2921.19.00.38 | 2921.19.21 |
|      | • 2-(N,N-Diethylamino)ethylchloride"  | 100-35-6   | 2921.19.00.39 | 2921.19.22 |
|      | • 2-( N,N-Diisopropylamino)ethylchloride hydrochloride  | 4261-68-1  | 2921.19.00.40 | 2921.19.23 |
|      | • 2-(N,N-Diisopropylamino)ethylchloride   | 96–79–7    | 2921.19.00.42 | 2921.19.24 |
|      | • 2-(N,N-Dimethylamino)ethylchloride hydrochloride  | 4584-46-7  | 2921.19.00.44 | 2921.19.27 |
|      | • 2-(N,N-Dimethylamino)ethylchloride  | 107–99–3   | 2921.19.00.44 | 2921.19.27 |
| 2.11 | N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols and corresponding protonated salts. eg:      |            | 2922.19.00.47 | 2922.19.19 |
|      | • 2-(N, N-Diisopropylamino)ethanol  | 96-80-0    | 2922.19.00.46 | 2922.19.10 |
|      | Exemptions:   |            |               |            |
|      | • N,N-Dimethylethanolamine (DMAE) and   | 108-01-0   | 2922.19.00.40 | 2922.19.11 |
|      | corresponding protonated salts  |            | 2922.19.00.47 | 2922.19.19 |
|      | • N,N-Diethylethanolamine (DEEA) and  | 100-37-8   | 2922.19.00.41 | 2922.19.12 |
|      | corresponding protonated saits  |            | 2922.19.00.47 | 2922.19.19 |
| 2.12 | N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols and corresponding protonated salts. eg:   |            | 2930.90.00.47 | 2930.90.37 |
|      | • 2-(N, N-Diethylamino)ethanethiol"   | 100–38–9   | 2930.90.00.47 | 2930.90.37 |
|      | • 2-(N,N-Diethylamino)ethanethiol hydrochloride   | 1942–52–5  | 2930.90.00.47 | 2930.90.37 |
|      | • 2-(N,N-Dimethylamino)ethanethiol hydrochloride  | 13242-44-9 | 2930.90.00.40 | 2930.90.31 |
|      | • 2-(N,N-Diisopropylamino)ethanethiol hydrochloride   | 41480-75-5 | 2930.90.00.41 | 2930.90.32 |
|      | • 2-(N, N-Diisopropylamino)ethanethiol  | 5842-07-9  | 2930.90.00.44 | 2930.90.34 |
| 2.13 | Thiodiglycol  | 111-48-8   | 2930.90.00.60 | 2930.90.40 |
|      | Trade name: Glyezin A   |            |               |            |
| 2.14 | 3,3-Dimethyl-2-butanol  | 464-07-3   | 2905.19.90.52 | 2905.19.10 |

| Product   | Contains S2 chemical(s)  | Import tariff<br>code | AHECC<br>code |
|---|--|-----------------------|---------------|
| Glyezin A (trade name)  | Thiodiglycol<br>(CAS 111–48–8)   | 2930.90.00.60         | 2930.90.40    |
| Q1-6083 Antifreeze Additive   | 3-(Trihydroxysilyl)propyl<br>methylphosphonate, monosodium salt<br>(CAS 84962-98-1)  | 3820.00.00.32         | 3820.00.00    |
| Flame retardants including <i>Flammentin MSG</i> and <i>Flovan CGN</i>  | Mixture of 50% Methylphosphonic<br>acid and 50% (Aminoiminomethyl)urea<br>(CAS 84402–58–4)   | 3809.91.00.46         | 3809.91.01    |
| Flame retardants including <i>Amgard</i> ® <i>CU</i> , <i>Antiblaze<sup>TM</sup> CU</i> , <i>FR-300</i> and <i>Pekoflam PES CN Liquid concentrate</i>   | (5-ethyl-2-methyl-2-oxido-1,3,2-<br>dioxaphosphinan-5-yl)methyl methyl<br>methylphosphonate (CAS 41203-81-0)<br>and<br>Bis[(5-Ethyl-2-methyl-2-oxido-1,3,2-<br>dioxaphosphinan-5-yl)methyl]<br>methylphosphonate (CAS 42595-45-9)<br>(CAS 170836-68-7) | 3809.91.00.46         | 3809.91.01    |
| Flame retardants including Antiblaze <sup>TM</sup><br>V490, Antiblaze 75, Amgard V 490,<br>Levagard AC 4048, Aflammit PLF 822<br>and DEEP (trade names) | Diethyl ethylphosphonate<br>(CAS 78-38-6)  | 2931.90.90.59         | 2931.90.59    |

### TRADE NAMES AND MIXTURES CONTAINING SCHEDULE 2 CHEMICALS

#### **CWC SCHEDULE 3 CHEMICALS**

Some trade names, and commercial products containing Schedule 3 chemicals, are shown in italics following the chemical name and also listed at the end of this section. Commonly traded chemicals are shown in blue text.

| Cher | nical name  | CAS<br>number | Import tariff<br>code | AHECC<br>code |
|------|---|---------------|-----------------------|---------------|
| А.   | Toxic chemicals   |               |                       |               |
| 3.1  | Carbonyl dichloride (Phosgene)  | 75–44–5       | 2812.10.00.36         | 2812.10.12    |
| 3.2  | Cyanogen chloride   | 506-77-4      | 2853.00.00.30         | 2853.00.05    |
| 3.3  | Hydrogen cyanide (Prussic acid)   | 74–90–8       | 2811.19.00.38         | 2811.19.10    |
| 3.4  | Trichloronitromethane (Chloropicrin)  | 76-06-2       | 2904.90.00.67         | 2904.90.10    |
|      | <ul><li>Component of soil fumigant Agrocelhone</li></ul>                              |               | 3808.99.00.90         | 3808.99.38    |
| B.   | Precursors  |               |                       |               |
| 3.5  | Phosphorus oxychloride  | 10025-87-3    | 2812.10.00.37         | 2812.10.14    |
| 3.6  | Phosphorus trichloride  | 7719–12–2     | 2812.10.00.38         | 2812.10.16    |
| 3.7  | Phosphorus pentachloride  | 10026-13-8    | 2812.10.00.39         | 2812.10.18    |
| 3.8  | Trimethyl phosphite   | 121-45-9      | 2920.90.00.51         | 2920.90.10    |
| 3.9  | Triethyl phosphite  | 122-52-1      | 2920.90.00.52         | 2920.90.20    |
| 3.10 | Dimethyl phosphite  | 868-85-9      | 2920.90.00.53         | 2920.90.30    |
| 3.11 | Diethyl phosphite   | 762-04-9      | 2920.90.00.54         | 2920.90.40    |
| 3.12 | Sulfur monochloride   | 10025-67-9    | 2812.10.00.40         | 2812.10.20    |
| 3.13 | Sulfur dichloride   | 10545-99-0    | 2812.10.00.41         | 2812.10.22    |
| 3.14 | Thionyl chloride  | 7719–09–7     | 2812.10.00.42         | 2812.10.24    |
| 3.15 | Ethyldiethanolamine   | 139-87-7      | 2922.19.00.43         | 2922.19.21    |
| 3.16 | Methyldiethanolamine (MDEA)   | 105-59-9      | 2922.19.00.44         | 2922.19.22    |
|      | • Component of some gas scrubbers including Ucarsol solvents and Jefftreat MP Solvent |               | 3814.00.00.40         | 3814.00.90    |
|      | OASE enriched, OASE purple, OASE white  |               | 3824.90.90.62         | 3824.90.91    |
| 3.17 | Triethanolamine (TEA)   | 102-71-6      | 2922.13.00.38         | 2922.13.10    |
|      | • Component of TEA 99 Low Freeze Grade (LFG) 85                                       |               | 2922.13.00.38         | 2922.13.10    |
|      | Component of embalming fluids <i>Plasma Flo</i> and <i>Free Flo</i>                   |               | 3824.90.90.62         | 3824.90.91    |
|      | • Component of epoxy-curing promoter <i>Accelerator 399</i>                           |               | 3824.90.90.62         | 3824.90.91    |

| TRADENAMES AND MIXTURES CONTAINING SCHEDULE 3 CHEMICALS   |                                   |                       |               |  |  |
|---|-----------------------------------|-----------------------|---------------|--|--|
| Product   | Contains S3<br>chemical           | Import tariff<br>code | AHECC<br>code |  |  |
| Soil fumigant Agrocelhone   | chloropicrin<br>(CAS 76–06–2)     | 3808.99.00.90         | 3808.99.38    |  |  |
| Gas scrubbers including Ucarsol Solvents and Jefftreat MP Solvent   | methyldiethanolamine              | 3814.00.00.40         | 3814.00.90    |  |  |
| OASE enriched, OASE purple, OASE white  | (CAS 105-59-9)                    | 3824.90.90.62         | 3824.90.91    |  |  |
| TEA 99 Low Freeze Grade (LFG) 85  |                                   | 2922.13.00.38         | 2922.13.10    |  |  |
| Embalming fluids <i>Plasma Flo, Free Flo</i> (Frigid Fluid Co)<br>Epoxy curing promoter <i>Accelerator 399</i> (Huntsman) | Triethanolamine<br>(CAS 102-71-6) | 3824.90.90.62         | 3824.90.91    |  |  |

# ANNEX 2

Other Chemicals Requiring Export Permissions

# OTHER CHEMICALS REQUIRING EXPORT PERMISSIONS

Annex 2

| Chemical name                                  | CAS<br>number | AHECC<br>code | Export<br>regime*          |
|--|---------------|---------------|----------------------------|
| Diethylaminoethanol                            | 100-37-8      | 2922.19.12    | AG 49                      |
| Dinitrogen pentoxide                           | 10102-03-1    | 2811.29.92    | MTCR 4.C.4                 |
| Mixed oxides of nitrogen (NO)                  | 10102-43-9    | 2811.29.92    | MTCR 4.C.4                 |
| Dinitrogen tetroxide                           | 10544-72-6    | 2811.29.92    | MCTR 4.C.4                 |
| Dinitrogen trioxide                            | 10544-73-7    | 2811.29.92    | MTCR 4.C.4                 |
| 2-Chloroethanol                                | 107-07-3      | 2905.59.20    | AG 15                      |
| Diisopropylamine                               | 108-18-9      | 2921.19.26    | AG 48                      |
| Triisopropyl phosphite                         | 116-17-6      | 2920.90.90    | AG 58                      |
| Hafnium dioxide                                | 12055-23-1    | 2825.90.90    | NSG DU 2.C.8               |
| Plutonium dioxide                              | 12059-95-9    | 2844.20.00    | NSG TL 1.2                 |
| Cyclonite                                      | 121-82-4      | 2933.69.00    | MTCR 4.C.4<br>NSG DU 6.C.1 |
| Dimethylamine                                  | 124-40-3      | 2921.11.15    | AG 16                      |
| U8Beryllium monoxide                           | 1304–56–9     | 2825.90.90    | NSG DU 2.C.2               |
| Sodium sulfide                                 | 1313-82-2     | 2830.10.05    | AG 50                      |
| Thorium dioxide                                | 1314-20-1     | 2844.30.00    | NSG TL 1.2                 |
| Zirconium dioxide                              | 1314-23-4     | 2825.60.00    | NSG DU 2.C.15              |
| Phosphorus pentasulfide                        | 1314-80-3     | 2813.90.15    | AG47                       |
| Sodium bifluoride                              | 1333-83-1     | 2826.19.12    | AG 43                      |
| Ammonium bifluoride                            | 1341-49-7     | 2826.19.10    | AG 42                      |
| Uranium dioxide                                | 1344–57–6     | 2844.10.00    | NSG TL 1.2                 |
| Uranium trioxide                               | 1344–58–7     | 2844.10.00    | NSG TL 1.2                 |
| Triuranium octoxide                            | 1344–59–8     | 2844.10.00    | NSG TL 1.2                 |
| Ammonium dinitramide                           | 140456-78-6   | 2842.90.92    | MTCR 4.C.4                 |
| Sodium cyanide                                 | 143-33-9      | 2837.11.01    | AG 45                      |
| Potassium cyanide                              | 151-50-8      | 2837.19.45    | AG 40                      |
| Sodium hexafluorosilicate                      | 16893-85-9    | 2826.90.92    | AG 62                      |
| Hexanitrostilbene                              | 20062-22-0    | 2904.20.00    | NSG DU 6.C.1               |
| O,O-Diethyl phosphorothioate                   | 2465-65-8     | 2920.19.09    | AG 60                      |
| Polybutadiene acrylic acid acrylonitrile       | 25067-26-9    |               | MTCR 4.C.5                 |
| Dibenz-(b,f)-1,4-oxazephine                    | 257-07-8      | 2934.99.05    | W                          |
| Cyclotetramethylenetetranitramine              | 2691-41-0     | 2933.99.00    | MTCR 4.C.4<br>NSG DU 6.C.1 |
| O-Chlorobenzylidenemalononitrile               | 2698-41-1     | 2926.90.21    | W                          |
| O,O-Diethyl phosphorodithioate                 | 298-06-6      | 2920.19.09    | AG 61                      |
| Hydrazine                                      | 302-01-2      | 2825.10.00    | MTCR 4.C.2                 |
| Triaminotrinitrobenzene                        | 3058-38-6     | 2921.59.00    | NSG DU 6.C.1               |
| 3-Hydroxy-1-methylpiperidine                   | 3554-74-3     | 2933.39.40    | AG 10                      |
| 3-Quinuclidone                                 | 3731-38-2     | 2933.39.35    | AG 37                      |
| Dimethylamine hydrochloride                    | 506-59-2      | 2921.11.18    | AG 20                      |
| 2-Chloro-1-phenylethanone (Chloroacetophenone) | 532-27-4      | 2914.70.15    | W                          |
| Dimethyl hydrazine (unsymmetrical)             | 57-14-7       | 2928.00.00    | MTCR 4.C.2                 |
| Unsymmetrical dimethylhydrazine                | 57-14-7       | 2928.00.00    | MTCR 4.C.2                 |
| Bromobenzylcyanide                             | 5798-79-8     | 2926.90.25    | W                          |
| Monomethylhydrazine                            | 60–34–4       | 2928.00.00    | MTCR 4.C.2                 |
| Triethanolamine hydrochloride                  | 637–39–8      | 2922.13.15    | AG 53                      |
| Carboxyl terminated polybutadiene              | 68441-48-5    |               | MTCR 4.C.5                 |
| Hydroxyl terminated polybutadiene              | 69102-90-5    |               | MTCR 4.C.5                 |

#### OTHER CHEMICALS REQUIRING EXPORT PERMISSIONS

Annex 2

| Chemical name  | CAS<br>number | AHECC<br>code | Export<br>regime* |
|--|---------------|---------------|-------------------|
| Aluminium powder (spherical)   | 7429–90–5     |               | MTCR 4.C.2        |
| Spherical aluminium powder (with a particle size of 60 mm or less manufactured from material with an Al content of 99% or more).   | 7429–90–5     | 7603.10.00    | MTCR 4.C.2        |
| Magnesium powder (with a particle size of less than 60 mm whether spherical, atomised, spheroidal, flaked or ground, manufactured from material consisting of 99% or more magnesium).  | 7439–95–4     |               | MTCR 4.C.2        |
| Beryllium powder   | 7440-41-7     | 8112.12.00    | MTCR 4.C.2        |
| Boron powder (85% or higher purity and a particle size of 60 mm or less).  | 7440-42-8     | 2804.50.00    | MTCR 4.C.2        |
| Zirconium powder (with a particle size of less than 60 mm whether spherical, atomised, speroidal, flaked or ground, manufactured from material consisting of 99% or more of zirconium) | 7440–67–7     | 8109.20.00    | MTCR 4.C.2        |
| Pinacolone   | 75–97–8       | 2914.19.45    | AG 39             |
| Hydrogen fluoride  | 7664–39–3     | 2811.11.00    | AG 24             |
| Sodium fluoride  | 7681–49–4     | 2826.19.11    | AG 44             |
| Methyl benzilate   | 76-89-1       | 2918.19.15    | AG 25             |
| Deuterium  | 7782–39–0     | 2845.90.00    | NSG TL 2.2.1      |
| Uranium hexafluoride   | 7783-81-5     | 2844.10.00    | NSG TL 1.2        |
| Deuterium oxide  | 7789–20–0     | 2845.10.00    | NSG TL 2.2.1      |
| Potassium fluoride   | 7789–23–3     | 2826.19.25    | AG 14             |
| Potassium bifluoride   | 7789–29–9     | 2826.19.28    | AG 41             |
| Chlorine trifluoride   | 7790-91-2     | 2812.10.90    | MTCR 4.C.4        |
| NSG DU 2.C.6   |               |               |                   |
| Ammonium perchlorate   | 7790–98–9     | 2829.90.00    | MTCR 4.C.4        |
| NSG DU 2.C.6   |               |               |                   |
| Oxalyl chloride  | 79–37–8       | 2917.19.10    | AG 59             |
| Inhibited red fuming nitric acid (Note: non-inhibited fuming nitric acid is not controlled)  | 8007–58–7     | 2808.00.00    | MTCR 4.C.4        |
| 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)  | 93-76-5       | 2918.91.05    | W                 |
| 2,4-Dichlorophenoxyacetic acid (free acid) (2,4-D)   | 94–75–7       | 2918.99.00    | W                 |
| Butyl 2-chloro-4-fluorophenoxyacetate (LNF)  |               | 2918.19.16    | W                 |

#### \*Key for Export Control Regimes (see page 11)

AGAustralia GroupMTCRMissile Technology Control RegimeNSGNuclear Suppliers GroupWWassenaar Arrangement

# **ANNEX 3**

Summary of Obligations

### **Schedule 1 chemicals**



# Schedule 2 chemicals



Refer to the glossary on page 13 for explanation of activities (eg production) and key on page 27.

#### SUMMARY OF OBLIGATIONS

#### **Schedule 3 chemicals**



#### **Discrete organic chemicals**



#### KEY

|     | Facilities are subject to occasional ASNO Inspections                             |
|-----|---|
|     | Facilities are subject to occasional OPCW and ASNO inspections                    |
| *   | Permit conditions require reporting twice yearly                                  |
| **  | Export permission for CWC-Scheduled chemicals may require an end-user certificate |
| *** | Permit conditions require annual reporting  |

Permit conditions require annual reporting

Annex 3

#### Disclaimer

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# CHEMICAL COUNTER-TERRORISM MEASURES

To detect and deter diversion of chemicals for non-peaceful purposes, those dealing with dual-use or dangerous chemicals should adopt at least the following measures:

- Ensure adequate chemical security and stock auditing;
- · Check the bona fides of those involved in the import process;
- Ensure chemical sales are to bona fide companies and are not intended for purposes prohibited under the Chemical Weapons (Prohibition) Act 1994;
- Report thefts and suspicious incidents to the National Security Hotline (1800 123 400) and local authorities; and
- Implement relevant guidelines, such as those of transport authorities and the Plastics and Chemicals Industries Association, as well as the National Code of Practice for Chemicals of Security Concern available at: www.chemicalsecurity.gov.au.