# THE UNIVERSITY OF SUSSEX

# LOCAL RULES FOR THE CONTROL OF POISONS and OTHER REGULATED CHEMICALS

## SPG -09-09

## Contains



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## INTRODUCTION

To comply with the requirements of the Management of Health and Safety at Work Regulations 1992 (Management Regs) a hazard and risk assessment must be made for all work activities.

Each hazard and risk assessment must include all the hazards and foreseeable risks associated with each activity. As part of these overall assessments required by the Management Regulations will be the consideration of any hazards and risks which may arise from any substances (chemicals, biological agents) involved. This latter part of the assessment is specifically required to comply with the Control of Substances Hazardous to Health (COSHH) Regulations.

All chemicals have some degree of hazard associated with them. Certain chemicals are sufficiently hazardous that they are controlled by specific legislation, e.g. the Poisons Act, or the Chemical Weapons Act whilst others are potential drug precursors or sufficiently hazardous that their use requires strict control measures

The Local Rules for the Control of Poisons and other regulated chemicals are designed to establish the specific systems of control required for safe working with those extremely toxic materials which have been assessed as falling within the substances identified in as (1) **poisons,** (2) **contolled drugs, category 1 and 2 drug precursors** or substances covered by the (3) **Chemical Weapons Convention** . It should be noted that many poisons are included by virtue of their extreme toxicity. As an example a list of controlled substances can be found in appendix 1 and chemical weapons can be foun d in appendix 2. The list in appendix 1 has been provided by Fisher Scientific and shows the category and documentation required (please not that this list is not exhaustive).

### Basic Responsibilities of Users of regulated substances

The basic aim is to be aware of the potential danger in these compounds, **to ensure that they cannot easily fall into the hands of unauthorised persons and to ensure that they do not harm fellow workers or visitors to the laboratory or indeed the wider community**.

When working with poisons/other hazardous chemicals, users must take care to ensure that these compounds do not enter the body by injection, ingestion, inhalation or skin absorption.

Users must familiarise themselves with the toxic properties of, and the antidote for (if one is available) the particular compound they are using. Antidotes are very rarely readily available, this information may be required by a Hospital in the event of a serious incident.

**Members of Faculty or Directors of Units** must provide the necessary **safety advice and supervision** of work involving controlled substances in research and teaching situations for which they are responsible. In non research/teaching buildings senior managers are responsible for ensuring that work with poisons and other controlled substances is effectively controlled.

## 1. Poisons

These are substances subject to the provisions of the Poisons Act, and the The Poisons (Amendment) Rules both of which have been subjected to a number of amendments.

**Purchase of Poisons**
Most suppliers will require that orders for scheduled poisons are accompanied by a signed letter on University headed notepaper which provides the purchasers authority, their full name and address, profession and the purpose for which the substances are required. A copy of this letter should be stored locally and a copy should be sent to the University Health and Safety Office

**Storage**
Some substances have very strict requirements as their use and storage. A number require storage in a locked cabinet with the key only being made available to a member of staff designated by the Head of School, Director of Unit or their nominee. All use must be recorded and once a year an internal audit of these substances must be undertaken and returns sent to the School Safety Advisor with a copy to the University Safety Office. We are subject to regular audits of our purchase and use of poisons and therefore accurate record keeping is essential. In general it should be taken that any substance that requires a licence should be stored and recorded in this manner.

Any loss or theft should immediately be reported to the University Safety Office.

All work with poisons must be under the control of a senior manager and therefore Risk and CoSHH assessments relating to this work **must** be approved by the Head of School, Director of Unit or their nominee.

**Disposal**
Disposal should be carried out according to the CoSHH assessement.

## 2. Controlled drugs

**Classification**
Under the Misuse of Drugs Regulations 2001, Controlled Drugs are classified into five Schedules according to the required level of control.
http://www.opsi.gov.uk/si/si2001/20013998.htm

**Schedule 1 drugs**

- Schedule 1 includes hallucinogenic drugs, ecstasy and cannabis.
- These drugs are subject to safe custody requirements and should be stored in a suitable locked cabinet secured to the fabric of the building at all times.
- Receipt and supply of Schedule 1 Controlled Drugs must be recorded in a Controlled Drugs Register.
- Written requisitions must be supplied to wholesalers.
- Destruction of Schedule 1 Controlled Drugs must be witnessed by an independent member of senior staff. A record of date, amount destroyed, and method of destruction should be entered into the register and countersigned by the witness.

**Schedule 2 drugs**

- Schedule 2 includes morphine, pethidine, fentanyl, alfentanil, methadone, the amphetamines and secobarbital, cocaine.
- These drugs are subject to safe custody requirements and should be stored in a suitable locked cabinet secured to the fabric of the building at all times.
- Receipt and supply of Schedule 2 Controlled Drugs must be recorded in a Controlled Drugs Register.
- Written requisitions must be supplied to wholesalers.
- Destruction of Schedule 2 Controlled Drugs must be witnessed by an independent member of senior staff. A record of date, amount destroyed, and method of destruction should be entered into the register and countersigned by the witness.

**Schedule 3 drugs**

- Schedule 3 includes buprenorphine, pentobarbital, phenobarbital, midazolam and some minor stimulants, including benzphetamine.
- These drugs are subject to safe custody requirements (with some exceptions) but do not have to be recorded in the Controlled Drugs Register.
- Written requisitions must be supplied to wholesalers.
- Destruction of Schedule 3 Controlled Drugs must be witnessed by an independent member of senior staff. A record of date, amount destroyed, and method of destruction should be entered into the register and countersigned by the witness.

**Schedule 4 drugs**

- Schedule 4 is split into two parts: part I includes benzodiazepines and ketamine; part II contains anabolic and androgenic steroids.
- They are not subject to safe custody requirements. However, it is recommended that it is stored in the Controlled Drugs cabinet and its use recorded in an informal Register.

**Schedule 5 drugs**

- Schedule 5 includes preparations of certain Controlled Drugs, such as codeine and morphine, which are exempt from full control when present in medicinal products of low strength.
- They are exempt from all Controlled Drug requirements, other than the requirement to keep invoices for 5 years.

**Summary of legal requirements**

| Legal requirements | Schedule 1&2 drugs | Schedule 3 drugs | Schedule 4 drugs: part I | Schedule 4 drugs: part II | Schedule 5 drugs |
|---|---|---|---|---|---|
| Safe custody | Yes(a) | Yes (b) | No | No | No |
| Record in Controlled Drug Register | Yes | No | No | No | No |

(a) = Except secobarbital.
(b) = Although safe custody requirements apply, currently most Schedule 3 Controlled Drugs are exempted. Those requiring safe custody are buprenorphine, temazepam, flunitrazepam, diethylpropion and midazolam.

A search can be performed to check the legal class of veterinary and human medicines, using the generic name of the drug. **Click here** to access The Royal Pharmaceutical Society of Great Britain (RPSGB) online search.

**Purchase of controlled drugs**

Suppliers will require that orders for controlled drugs are accompanied by a signed letter on University headed notepaper which provides the purchasers authority, their full name and address, profession and the purpose for which the substances are required. A copy of this letter should be stored locally and a copy should be sent to the University Health and Safety Office.

Each order passed to stores should be clearly marked that the goods on order are controlled substances. On delivery of these goods stores will record details of delivery in the log book and immediately contact the person responsible for the order. The goods will only be handed to the responsible person and a signature for the goods must be obtained. The cabinet register must be countersigned by stores on handover.

**Storage of controlled drugs**

- Schedule 1, 2 and 3 Controlled Drugs should be kept in a locked cabinet. This cabinet should conform to British Standards and be attached to the fabric of the building.
- Access to the Controlled Drugs cabinet should be restricted, with keys kept by a responsible person(s) at all times. It is not acceptable to have a communal key kept in a drawer or other non-secure place.
- A key register can be used to pass responsibility from one key holder to another, e.g. for overnight and during the day.
- Non-compliance with the Misuse of Drugs Regulations 2001, may lead to prohibition of keeping Controlled Drugs by the Home Office.

**Record keeping for use of controlled drugs**

- When ordering Schedule 1, 2 and 3 Controlled Drugs, a written signed requisition must supplied to the wholesaler, a copy of which must be kept locally.
- All invoices relating to Controlled Drugs should be kept for 2 years.
- A separate Register should be kept for each premises and for each cupboard within a premises if there is more than one. This Register should be in the form of a bound book or computerized record.
- Within this Register, each drug, form and strength must have a separate section with the medicine name and strength written at the top of each page.
- Entries must be made in chronological order with no alterations. If a mistake is made, an explanatory note must be made at the bottom of the page or margin.
- Registers may only be kept electronically if safeguards are built into the software to ensure the following:
  - The author of each entry is identifiable
  - Entries cannot be altered at a later date
  - A log of date entered is kept and can be recalled for audit purposes.
- The Register must be completed within 24 hours. For example, it is acceptable during procedures to mark on a white board the quantities administered and complete the Register at the end of the day.

- Legally the Register should be kept for 2 years; however, it is recommended that they are kept for 5 years.

**Controlled Drugs Register**
On receipt the following information should be recorded in the Controlled Drugs Register:

Date received
- Name and address of the person or supplier from whom the drug was obtained
- Amount received
- Form in which received
- Running total (recommended).

**Standard operating procedures**
There should be in place standard operating procedures (SOPs) that cover the following:
- Who has access to the Controlled Drugs
- Where the Controlled Drugs are stored
- Security in relation to the storage and transportation of Controlled Drugs
- Who is to be alerted should complications arise
- Record keeping, including maintaining the Controlled Drugs Register and maintaining a record of Controlled Drugs returned by clients.
- All work with controlled drugs must be under the control of a senior manager and therefore Risk and CoSHH assessments relating to this work **must** be approved by the Head of School, Director of Unit or their nominee. Copies of these must be sent to the University Safety Office and a copy must be held locally.

**Destruction of Controlled Drugs**

Controlled Drugs awaiting destruction should be stored separately from current stock but within the Controlled Drugs cabinet.
- A separate book should be kept to record destruction of these products.
- Destruction of out-of-date Controlled Drugs must be witnessed by someone authorized by the Home Office, such as a local police officer.
- An entry must be made in the Controlled Drugs Register detailing the items destroyed and the running total updated. This entry must be signed by the authorized witness.
- Method of destruction:
- Use a denaturing kit where possible
- Wear gloves
- Crush solid dosage forms in mortar and pestle and add to the denaturing kit
- Pour in liquids
- Add parenteral preparations, open ampoules and empty into denaturing kit, and remove medicines from vials
- Fill denaturing kit with water and store in the Controlled Drugs cupboard for 24 hours until denaturing is complete
- Incinerate with other pharmaceutical waste.

## 3. Drug precursors

Following a review in the European Union of the effectiveness of illicit drug precursor control, regulations have been produced which are primarily concerned with controlling trade in such chemicals. The legislation is a small part of a worldwide legal structure designed to

monitor the trade in licit substances that can be used in the manufacture of illegal drugs ("precursors") to prevent their leakage on to the illicit market or for illicit purposes. These chemicals are classed as either Category 1, 2 or 3. The University requires a licence from the Home Office to order Category 1 drug precursors, a licence is not required for ordering Category 2 chemicals. Category 3 substances are **not** relevant to the University as they relate specifically to the export of substances abroad.

All work with these compounds must be under the control of a senior manager and therefore Risk and CoSHH assessments relating to this work **must** be approved by the Head of School, Director of Unit or their nominee.

The University is required to submit an annual report to the Home Office on the use of Category 1 and 2 substances. Declaration of Specific Use Forms and Records of Supply of Category 1 and 2 Substances should be held for at least 12 months after the final disposal of the consignment to which they relate

### (i) Category 1 Substances

Staff wishing to purchase Category 1 substances covered under the current University licence should contact the University Safety Office for the licence number or a copy of the license (if requested by the supplier).

They will then be required to complete a Declaration of Specific Use(s) Form which can be obtained from the Home Office website by following the relevant link below:

Customer declaration of specific uses of the scheduled category 1 or 2 substances (individual transactions)

Customer declaration of specific uses of the scheduled category 2 substances (multiple transactions)

A completed copy of this form should be held locally and further copies forwarded to the University Safety Office and the School Safety Adviser.

A Record of Supply and Use of Category 1 and 2 Substances should also be completed and a copy held locally and a further copy forwarded to the School Safety Adviser.

Each order passed to stores should be clearly marked that the goods order are controlled substances. On delivery of these goods stores will record details of delivery in the log book and immediately contact the person responsible for the order. The goods will only be handed to the responsible person and a signature for the goods must be obtained. The laboratory record book must be countersigned by stores on handover.

Category 1 substances must be securely stored in a locked cabinet when not in use.with the key only being made available to a member of staff designated by the Head of School, Director of Unit or their nominee. It is recommended that amounts of these substances held ob site is kept to a minimum. All use must be recorded and once a year an internal audit of these substances must be undertaken and returns sent to the School Safety Advisor with a copy to the University Safety Office.

Only authorised persons should have access to Category 1 substances.

Any loss or theft of Category 1 substances should immediately be reported to the University Safety Office.

### (ii) Category 2 Substances

School members wishing to purchase Category 2 substances are required to complete a Declaration of Specific Use(s) Form (as above). A completed copy of this form should be held locally and further copies forwarded to the University Safety Office and the School Safety Adviser.

A Record of Supply of Category 1 and 2 Substances should also be completed and a copy held locally and a further copy forwarded to the School Safety Adviser.

Category 2 substances should so far as is reasonably practicable be securely stored.

**Supply of drug precursors to outside parties**
If anyone wishes to supply Category 1 substances to parties outside the University they MUST contact the University Safety Office BEFORE doing so – additional requirements will apply.

**Disposal**
The disposal of category 1 and 2 chemicals is not subject to licensing requirements, so disposal operations may be carried out in the normal way.

## 4. Chemical weapons convention

The Chemical Weapons Convention (CWC) which entered into force on 29 April 1997, is an international arms control treaty, designed to eliminate an entire class of weapons of mass destruction. However, as many chemicals with legitimate peaceful uses can also be used as chemical weapons, the CWC has implications for both industry and the academic community. The University has to provide annual returns of it's use of these chemicals therefore accurate records must be kept.

**Schedule 1**
No one may bring on to University premises any substances listed in Schedule 1 without contacting the Univesrity Safety Office.

**Schedule 2**
All Departments who produce, process, consume, import or export any substances or mixtures of substances listed in Schedule 2 (Appendix 3) must, as of 1st January 2004, keep the following records

- Chemical name, including CAS number (if known);
- The amounts produced, processed, consumed;
- The amounts imported or exported during the year, and the countries from which it was imported/exported. (A total amount for each chemical from each country will need to be compiled at the end of each calendar year);

- If contained in a mixture the mixture and percentage concentration must also be provided

- Details of the company which the substance was purchased from or exported to

**Schedule 3**

All Departments who produce, import or export any substances or mixtures of substances listed in Schedule 3 (Appendix 3) must, as of 1st January 2004, keep the following records

- Chemical name, including CAS number (if known);

- The amounts imported or exported during the year, and the countries from which it was imported/exported. (A total amount for each chemical from each country will need to be compiled at the end of each calendar year);

- If contained in a mixture the mixture and percentage concentration must also be provided

- Details of the company which the substance was purchased from or exported to

Appendix 1

This list is not exhaustive and is subject to change in legislation, if in doubt ask the Safety Office. To find a chemical you can used the Microsoft Word Find option under Edit.

| DESCRIPTION | RESTRICTION TYPE | Documentation Required |
|---|---|---|
| | | |
| 1-(O-ARSENOPHENYLAZO)-2-NAPTHOL-3,6-DISULFONIC ACID,SODIUM SALT | SCHEDULE 1 POISON | |
| 1,1,1-TRICHLOROETHANE | OZONE DEPLETER | Registration required |
| 1,2,4-TRICHLOROBENZENE | ENVIRONMENTALLY SENSITIVE | |
| 1,2-TRICHLORO-1,2,2,TRIF | OZONE DEPLETER | Registration required |
| 111,TRICHLOROETHANE | OZONE DEPLETOR | Registration required |
| 112-TRICHLORO-122-TRIFLUOROETHANE | OZONE DEPLETOR | Registration required |
| 1-STRYCHNINE | SCHEDULE 1 POISON | |
| 2-(3,4-DIMETHOXYPHENYL)-ETHYLA | MISUSE OF DRUGS | Licence required |
| 2-(3,4-DIMETHOXYPHENYL)ETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 2-(4-CHLOROPHENYL)ETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 2,3-DICHLOROPHENYLETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 2,4-DICHLOROPHENYLETHYAMINE | MISUSE OF DRUGS | Licence required |
| 2,5-DIMETHOXYPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 2,6-DICHLOROPHENYLETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 2,6-DINITRO-P-CRESOL | SCHEDULE 1 POISON | |
| 2-BROMOPHENYLETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 2-CHLORO-6-FLUOROPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 2-FLUOROPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 2-HYDROXY GAMMA BUTYROLACTONE | DRUGS PRECURSOR | |
| 2-METHOXYPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 3,4-DICHLOROPHENYLETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 3-BROMOPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 3-BROMOPHENYLETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 3-FLUOROPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 3-METHOXYPHENYLETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 3-METHYLPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 3-O-METHYLDOPAMINE | MISUSE OF DRUGS | Licence required |
| 4,6-DINITRO-0-CRESOL | SCHEDULE 1 POISON | |
| 4-0-METHYLDOPAMINE | MISUSE OF DRUGS | Licence required |
| 4-4-AMINOPHENYLAZO PHENYLARSONIC ACID | SCHEDULE 1 POISON | |
| 4-BROMOPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 4-BROMOPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| 4-FLUOROPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| ACETIC ANHYDRIDE | DRUGS PRECURSOR | |
| ACETYLANTHRANILIC ACID | DRUGS PRECURSOR | |
| AFLATOXIN | TOXIN | |
| AMINO BUTYROLACTONE | DRUGS PRECURSOR | |
| AMINOPHENYLMERCURICACETATE | SCHEDULE 1 POISON | |
| AMMONIUMORTHOARSENATE | SCHEDULE 1 POISON | |
| ANDROSTENEDIOLHYDRATE | STEROID | Licence required |
| ANDROSTERONE | STEROID | Licence required |
| ANTHRANILIC ACID | DRUGS PRECURSOR | |
| ARSENIC | SCHEDULE 1 POISON | |

| | | |
|---|---|---|
| ARSENIC SULFIDE | SCHEDULE 1 POISON | |
| ARSENIC BROMIDE | SCHEDULE 1 POISON | |
| ARSENIC IODIDE | SCHEDULE 1 POISON | |
| ARSENIC OXIDE | SCHEDULE 1 POISON | |
| ARSENIC TRIOXIDE | SCHEDULE 1 POISON | |
| ATROPINESULFATEMONOHYDRA | SCHEDULE 1 POISON | |
| BARBITONE | MISUSE OF DRUGS | Licence required |
| BARIUM | SCHEDULE 1 POISON | |
| BARIUM -2- ETHYLHEXANOATE | SCHEDULE 1 POISON | |
| BARIUM ACETATE | SCHEDULE 1 POISON | |
| BARIUM BROMIDE | SCHEDULE 1 POISON | |
| BARIUM CARBONATE | SCHEDULE 1 POISON | |
| BARIUM CHLORIDE | SCHEDULE 1 POISON | |
| BARIUM CHLOROANILATE TRIHYDRATE | SCHEDULE 1 POISON | |
| BARIUM CYCLOHEXANEBUTYRATE | SCHEDULE 1 POISON | |
| BARIUM DECANOATE | SCHEDULE 1 POISON | |
| BARIUM DIPHENYLAMINE-4-SULFONATE | SCHEDULE 1 POISON | |
| BARIUM DIPHENYLAMINESULFONATE | SCHEDULE 1 POISON | |
| BARIUM FLUORIDE | SCHEDULE 1 POISON | |
| BARIUM HYDROXIDE | SCHEDULE 1 POISON | |
| BARIUM HYDROXIDE HYDRATE | SCHEDULE 1 POISON | |
| BARIUM IODIDE | SCHEDULE 1 POISON | |
| BARIUM MANGANATE | SCHEDULE 1 POISON | |
| BARIUM METABORATE MONOHY | SCHEDULE 1 POISON | |
| BARIUM NITRATE | SCHEDULE 1 POISON | |
| BARIUM OXIDE | SCHEDULE 1 POISON | |
| BARIUM PERCHLORATE | SCHEDULE 1 POISON | |
| BARIUM PEROXIDE | SCHEDULE 1 POISON | |
| BARIUM SULFATE | SCHEDULE 1 POISON | |
| BARIUM TITANATE | SCHEDULE 1 POISON | |
| BENZYL METHYL KETONE | DRUGS PRECURSOR | Licence required |
| BERYLLIUM POWDER | SCHEDULE 1 POISON | |
| BERYLLIUMFLUORIDE | SCHEDULE 1 POISON | |
| BORONTRIBROMIDE | SCHEDULE 1 POISON | |
| BORONTRICHLORIDE SOLUTION | SCHEDULE 1 POISON | |
| BROMOFLUOROETHANE | OZONE DEPLETOR | Registration required |
| BROMOFLUOROMETHANE | OZONE DEPLETOR | Registration required |
| BROMOTRIFLUOROPROPANE | OZONE DEPLETER | Registration required |
| BRUCINE | SCHEDULE 1 POISON | |
| BUTANEDIOL | DRUGS PRECURSOR | |
| BUTANETRIOL | DRUGS PRECURSOR | |
| BUTYROLACTONE | DRUGS PRECURSOR | |
| CACODYLIC ACID | SCHEDULE 1 POISON | |
| CARBON TETRACHLORIDE | SCHEDULE 1 POISON | |
| CHLORANILIC ACID | SCHEDULE 1 POISON | |
| CHLOROFLUOROPROPANE | OZONE DEPLETOR | Registration required |
| CHLOROMERCURINITROPHENOL | SCHEDULE 1 POISON | |
| CHLOROPHENYLETHYLAMINE | MISUSE OF DRUGS | Licence required |
| CHLOROPHENYLTHIOUREA | SCHEDULE 1 POISON | |
| COPPER (1) CYANIDE | SCHEDULE 1 POISON | |
| CYCLOHEXIMIDE | SCHEDULE 1 POISON | |
| DEHYDROISOANDROSTERONE | STEROID | Licence required |
| DIBROMODIFLUOROETHANE | OZONE DEPLETER | Registration required |

| | | |
|---|---|---|
| DIFLUORONITROBENZENE, | OZONE DEPLETER | Registration required |
| DIMETHOXYTRYPTAMINE | MISUSE OF DRUGS | Licence required |
| DIMETHYLHYDROXYPHENETHYL | MISUSE OF DRUGS | Licence required |
| DIMETHYLPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| EPHEDRINE | DRUGS PRECURSOR | Licence required |
| EPHEDRINE HYDROCHLORIDE | DRUGS PRECURSOR | Licence required |
| EPHEDRINE SULFATE | DRUGS PRECURSOR | Licence required |
| ETHANOL | DUTY FREE SPIRITS | Licence required |
| ETHANOL, DENATURED | DUTY FREE SPIRITS | Licence required |
| ETHYL ALCOHOL | DUTY FREE SPIRITS | Licence required |
| ETHYLPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| FLUOROACETAMIDE | SCHEDULE 1 POISON | |
| FLUOROTRICHLOROMETHANE | OZONE DEPLETOR | Registration required |
| FLUOXYMESTRONE | STEROID | Licence required |
| FORMAMIDE | DRUGS PRECURSOR | |
| GAMMA BUTYROLACTONE | DRUGS PRECURSOR | |
| HEXAMETHYLENEIMINE | SCHEDULE 1 POISON | |
| HYDROXYBUTYRIC ACID | DRUGS PRECURSOR | |
| HYDROXYBUTYRIC ACID SODIUM SALT | DRUGS PRECURSOR | |
| HYDROXYMETHYLTESTOSTERONE | STEROID | Licence required |
| ISOSAFROL | DRUGS PRECURSOR | Licence required |
| LYSERGIC ACID | DRUGS PRECURSOR | Licence required |
| MERCURIC ACETATE | SCHEDULE 1 POISON | |
| MERCURIC TRIFLUOROACETATE | SCHEDULE 1 POISON | |
| MERCUROCHROME | SCHEDULE 1 POISON | |
| MERCURY (1) NITRATE | SCHEDULE 1 POISON | |
| MERCURY (11) ACETATE | SCHEDULE 1 POISON | |
| MERCURY (11) CHLORIDE | SCHEDULE 1 POISON | |
| MERCURY (11) CYANIDE | SCHEDULE 1 POISON | |
| MERCURY (11) IODIDE | SCHEDULE 1 POISON | |
| MERCURY (11) NITRATE | SCHEDULE 1 POISON | |
| MERCURY (11) OXYCYANIDE | SCHEDULE 1 POISON | |
| MERCURY CYCLOHAXANEBUTYRATE | SCHEDULE 1 POISON | |
| MERCURY THIOCYANATE | SCHEDULE 1 POISON | |
| MERCURY(11) NITRATE | SCHEDULE 1 POISON | |
| MERCURYCHLORIDE | SCHEDULE 1 POISON | |
| MERCURYIIOXIDEYELLOW | SCHEDULE 1 POISON | |
| MERCURYIISULFATE | SCHEDULE 1 POISON | |
| MERCURYOXIDE | SCHEDULE 1 POISON | |
| MERCURYSULFATE | SCHEDULE 1 POISON | |
| MERCURYSULFIDE | SCHEDULE 1 POISON | |
| METHYLATED SPIRITS | DUTY FREE SPIRITS | Authorisation required |
| METHYLFORMAMIDE | DRUGS PRECURSOR | |
| METHYLPHENETHYLAMINE | MISUSE OF DRUGS | Licence required |
| METHYLTESTOSTERONE | STEROID | Licence required |
| METHYLTHIOCYANATE | SCHEDULE 1 POISON | |
| METHYLTRYPTAMINE | MISUSE OF DRUGS | Licence required |
| NAPHTHYLTHIOUREA | SCHEDULE 1 POISON | |
| NESSLERS SOLN | SCHEDULE 1 POISON | |
| NICOTINE | SCHEDULE 1 POISON | |
| NICOTINE DITARTRATE | SCHEDULE 1 POISON | |
| NICOTINE SULFATE | SCHEDULE 1 POISON | |

| | | |
|---|---|---|
| NNDIMETHYLHYDROXYPHENETH | MISUSE OF DRUGS | Licence required |
| NOREPHEDRINE | DRUGS PRECURSOR | Licence required |
| OSMIUM TETRAOXIDE | SCHEDULE 1 POISON | |
| OSMIUMTETROXIDE | SCHEDULE 1 POISON | |
| PHENYLACETIC ACID | DRUGS PRECURSOR | |
| PHENYLACETICACIDHYDRAZID | DRUGS PRECURSOR | |
| PHENYLACETONE | DRUGS PRECURSOR | Licence required |
| PHENYLMERCURY ACETATE | SCHEDULE 1 POISON | |
| PIPERIDINE | DRUGS PRECURSOR | |
| PIPERONAL | DRUGS PRECURSOR | Licence required |
| POTASSIUM PERMANGANATE | DRUGS PRECURSOR | |
| PSEUDOEPHEDRINE | DRUGS PRECURSOR | Licence required |
| PSEUDOEPHEDRINE HYDROCHLORIDE | DRUGS PRECURSOR | Licence required |
| SAFROLE | DRUGS PRECURSOR | Licence required |
| SAXITOXIN | TOXIN | |
| SCOPOLAMINE | SCHEDULE 1 POISON | |
| SELENIOUS ACID, | SCHEDULE 1 POISON | |
| SEMICARBAZIDE, | SCHEDULE 1 POISON | |
| SEMICARBAZIDEHYDROCHLORIDEPA | SCHEDULE 1 POISON | |
| SILVER CYANIDE | SCHEDULE 1 POISON | |
| SODIUM ARSENATE | SCHEDULE 1 POISON | |
| SODIUM ARSENITE | SCHEDULE 1 POISON | |
| SODIUM CACODYLATE | SCHEDULE 1 POISON | |
| SODIUM CYANIDE | SCHEDULE 1 POISON | |
| SODIUMSELENITE | SCHEDULE 1 POISON | |
| TESTOSTERONE | STEROID | Licence required |
| TETRACYANOETHYLENE, | SCHEDULE 1 POISON | |
| TETRAPHENYLARSONIUM CHLORIDE | SCHEDULE 1 POISON | |
| TETRODOTOXIN | TOXIN | |
| TETRODOTOXINCITRATEFREE | TOXIN | |
| THALLIC ACETATE | SCHEDULE 1 POISON | |
| THALLIC TRIFLUOROACETATE | SCHEDULE 1 POISON | |
| THALLIUM | SCHEDULE 1 POISON | |
| THALLIUM (111) OXIDE | SCHEDULE 1 POISON | |
| THALLIUM (111)NITRATE | SCHEDULE 1 POISON | |
| THALLIUM BROMIDE | SCHEDULE 1 POISON | |
| THALLIUM CHLORIDE | SCHEDULE 1 POISON | |
| THALLIUM FLUORIDE | SCHEDULE 1 POISON | |
| THALLIUM NITRATE | SCHEDULE 1 POISON | |
| THALLIUM SULFATE | SCHEDULE 1 POISON | |
| THALLIUM(1)TRIFLUOROACETYLACETONATE | SCHEDULE 1 POISON | |
| THALLOUS ACETATE | SCHEDULE 1 POISON | |
| THALLOUS FORMATE | SCHEDULE 1 POISON | |
| THALLOUS MALONATE | SCHEDULE 1 POISON | |
| THALLOUSETHOXIDE | SCHEDULE 1 POISON | |
| THIOSEMICARBAZIDE | SCHEDULE 1 POISON | |
| THORIN 1 INDICATOR GRADE | SCHEDULE 1 POISON | |
| TOLYLETHYLAMINE | MISUSE OF DRUGS | Licence required |
| TRICHLOROFLUOROMETHANE | OZONE DEPLETOR | Registration required |
| TRICHLOROTRIFLUOROETHANE | OZONE DEPLETER | Registration required |
| TRIETHYLENEMELAMINE | OZONE DEPLETER | Registration required |
| TRIFLUOROMETHYLPHENETHYL | MISUSE OF DRUGS | Licence required |
| TRIMETHYLTINCHLORIDE | SCHEDULE 1 POISON | |

| | | |
|---|---|---|
| VALINOMYCIN | SCHEDULE 1 POISON | |
| ZINC CYANIDE | SCHEDULE 1 POISON | |

## Appendix 2

## Schedule 1

### A. Toxic chemicals

| | | **(CAS Registry number)** |
|---|---|---|
| (1) | O-Alkyl (<C10, incl. cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr)-phosphonofluoridates | |
| | e.g. Sarin:O-Isopropyl methylphosphonofluoridate | (107-44-8) |
| | Soman:O-Pinacolyl methylphosphonofluoridate | (96-64-0) |
| (2) | O-Alkyl (<C10, incl. cycloalkyl) N,N-dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidocyanidates | |
| | e.g. Tabun: O-Ethyl N,N-dimethyl phosphoramidocyanidate | (77-81-6) |
| (3) | O-Alkyl (H or <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. VX: O-Ethyl S-2-diisopropylaminoethyl methyl phosphonothiolate | (50782-69-9) |
| (4) | Sulfur 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) |
| | O-Mustard: Bis(2-chloroethylthioethyl)ether | (63918-89-8) |
| (5) | Lewisites: | |
| | Lewisite 1: 2-Chlorovinyldichloroarsine | (541-25-3) |
| | Lewisite 2: Bis(2-chlorovinyl)chloroarsine | (40334-69-8) |
| | Lewisite 3: Tris(2-chlorovinyl)arsine | (40334-70-1) |

| | | **(CAS Registry number)** |
|---|---|---|
| (6) | Nitrogen mustards: | |
| | HN1: 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

| | | **(CAS Registry number)** |
|---|---|---|
| (9) | Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldifluorides | |
| e.g. DF: | Methylphosphonyldifluoride | (676-99-3) |
| (10) | O-Alkyl (H or <C10, incl. cycloalkyl) O-2-dalkyl (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

A. Toxic chemicals

| | | (CAS Registry number) |
|---|---|---|
| (1) | Amiton: O,O-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

| | | (CAS Registry number) |
|---|---|---|
| (4) | 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 Methylphosphonyl dichloride | (676-97-1) |
| | Dimethyl methylphosphonate | (756-79-6) |
| Exemption: | Fonofos:O-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 | |
| Exemptions: | N,N-Dimethylaminoethanol and corresponding protonated salts | (108-01-0) |
| | 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) | Thiodiglycol: Bis(2-hydroxyethyl)sulfide | (111-48-8) |
| (14) | Pinacolyl alcohol: 3,3-Dimethylbutan-2-ol | (464-07-3) |

## Schedule 3

### A. Toxic chemicals

| | | (CAS Registry number) |
|---|---|---|
| (1) | Phosgene: Carbonyl dichloride | (75-44-5) |
| (2) | Cyanogen chloride | (506-77-4) |
| (3) | Hydrogen cyanide | (74-90-8) |
| (4) | Chloropicrin: Trichloronitromethane | (76-06-2) |

### B. Precursors

| | | (CAS Registry number) |
|---|---|---|
| (5) | Phosphorus oxychloride | (10025-87-3) |
| (6) | Phosphorus trichloride | (7719-12-2) |
| (7) | Phosphorus pentachloride | (10026-13-8) |
| (8) | Trimethyl phosphite | (121-45-9) |
| (9) | Triethyl phosphite | (122-52-1) |
| (10) | Dimethyl phosphite | (868-85-9) |
| (11) | Diethyl phosphite | (762-04-9) |
| (12) | Sulfur monochloride | (10025-67-9) |
| (13) | Sulfur dichloride | (10545-99-0) |
| (14) | Thionyl chloride | (7719-09-7) |

| | | |
|---|---|---|
| (15) | Ethyldiethanolamine | (139-87-7) |
| (16) | Methyldiethanolamine | (105-59-9) |
| (17) | Triethanolamine | (102-71-6) |