



Department for
Business, Energy
& Industrial Strategy

Chemical Weapons Convention guidance notes

Annual past electronic declaration for
discrete organic chemicals (DOC) and PSF-
chemicals

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For annual past electronic declaration for discrete organic chemicals (DOC) and PSF-chemicals

These Guidance Notes accompany a notice served under section 22(1) of the Chemical Weapons Act 1996 (“the 1996 Act”). The statutory notice requires the full and accurate completion of an electronic declaration form(s). The electronic declaration form(s) must be completed in accordance with these Guidance Notes. The duly completed electronic declaration form(s) must then be submitted directly to the UK Chemical Weapons Convention National Authority via the Chemical Weapons Convention Declarations Database. The notice specifies a date by which you must ensure that the Authority receives the completed electronic declaration form(s).

The notice under section 22(1) creates a legal obligation which must be complied with. Failure to return the completed electronic declaration form(s) by the due date without reasonable excuse is an offence contrary to section 22(3) of the 1996 Act. It is also an offence, contrary to section 22(4) of the 1996 Act, knowingly to provide false or misleading information in completing the electronic declaration form(s).

These guidance notes explain how to complete an annual declaration of past activity for discrete organic chemicals (DOCs) and DOCs containing the elements phosphorus, sulfur or fluorine (PSF-chemical). You must read them carefully before completing the electronic declaration form(s).

The completed electronic declaration form(s) should be submitted to the Chemical Weapons Convention UK National Authority (UKNA) **via the Chemical Weapons Convention Declarations Database** no later than the Deadline Date as specified on the Legal Notice for this declaration.

If you have any queries on how to accurately complete the declaration form(s) please contact the UKNA for further guidance and advice.

1. Background to Annual Past Electronic Declarations

An Annual Past Electronic Declaration is required, under the Chemical Weapons Convention (CWC), for all sites which, in the previous calendar year:

- produced more than 200 tonnes of unscheduled discrete organic chemicals

or

- comprise one or more plants which produced more than 30 tonnes of an individual discrete organic chemical containing the elements phosphorus, sulfur or fluorine.

Annex A to these guidance notes contains definitions and Annex B contains examples of chemicals which are declarable and non-declarable under the CWC, and also examples of processes that are not considered "Production".

2. Confidentiality and Security of Information (Already pre-filled but can be amended)

A box should be ticked to assign a level of confidentiality to the information that is being provided. This classification only applies to actual data submitted in the electronic declaration and not to information supplied to the Organisation for the Prohibition of Chemical Weapons (OPCW) as part of an inspection (which may be accorded a higher category of confidentiality, if necessary).

All information, including that classified Not Restricted is stored within secure areas and is only passed to those with a need to know. A Protected or Highly Protected classification should therefore be used only in exceptional circumstances.

The types of classification are:

Not Restricted - Information that is marked Not Restricted will not be released by the UKNA or the OPCW, unless specifically cleared for release. To request release, the OPCW would contact the UKNA who, in turn, would ask the company for permission to release any information.

Restricted – Information of which the unauthorised disclosure would be prejudicial to the effectiveness or credibility of the Convention, or prejudicial to the interests of a State Party or of a commercial or governmental body or of a national of a State Party.

Protected - Information of which the unauthorised disclosure may cause substantial damage to the effectiveness or credibility of the Convention, or to the interests of a State Party or of a commercial or governmental body or of a national of a State Party.

Highly Protected - Sensitive confidential information of which the unauthorised disclosure would cause serious damage to the effectiveness or credibility of the Convention, or its aims and purpose, or cause serious damage from the point of view of national security or

commercial secrecy to the interests of a State Party or of a commercial or governmental body or national of a State Party.

Declarations should be accorded the lowest appropriate classification. Not Restricted or Restricted should be chosen unless there is a process awaiting patent, or some other sensitive commercial consideration. However, for DOC and PSF-chemicals, if the product is being sold to the open market in bulk, and capacity is known, then no restrictions should apply.

Questions

The electronic declaration should only contain information relating to a single site and not multiple sites.

Questions 1/2 – Name of Site and Site Address (Already pre-filled)

The name commonly used for the site and the site address. "Site" (Works, Factory) is defined by the CWC as the local integration of one or more plants, with any intermediate administrative levels, which are under one operational control, and includes common infrastructure, such as:

- i) Administration and other offices;
- ii) Repair and maintenance shops;
- iii) Medical centre;
- iv) Utilities;
- v) Central analytical laboratory;
- vi) Research and development laboratories;
- vii) Central effluent and waste treatment area; and
- viii) Warehouse storage.

Question 3 – Name of Site Operator (Already pre-filled)

The site operator's name.

Question 4 – Site Operator's Address (Already pre-filled)

The site operator's address.

Questions 5 – Name of Site Owner (Already pre-filled)

The site owner's name.

Questions 6 – Site Owner's Address (Already pre-filled)

The site owner's address.

Question 7 – Product Groups (Already pre-filled but can be amended)

Use the product group codes listed at Annex C to describe the main activities that make the plant site declarable. There may be cases where the final product manufactured on-site is not declarable, but it is produced by consumption of a declarable DOC/PSF-chemical(s) produced (synthesised) on-site. In these cases, **the declaration must use the most appropriate product group code(s), given in Annex C, to reflect this DOC/PSF chemical production, and not the ultimate end products manufactured at the plant site.**

Only one product group code should be selected per chemical and a code should be provided to each main chemical or chemical related series. If several DOCs are produced, one product group code should be defined for each main chemical or chemical series. The correct product group code to declare is the first one in this list that accurately describes the particular DOC: 519, 591, 541, 542, 515, 513, 512, 511, 514, 523, 531, 532, 551, 553, 554, 593, 597, 516.

Code 516 ("other organic chemicals") should only be used if no other code is applicable to the DOC product.

The product group codes contain a list of 'typical chemicals' under many of them. These are for illustrative purposes only and do not represent a complete list of all chemicals within the group and do not imply that specific chemicals are being declared.

Questions 8/9 – Number of DOC Plants on Site (including PSF Plants) and Aggregate Production Range of Site

In response to these questions, please record the aggregate number of plants producing unscheduled DOCs, including those plants producing PSF chemicals, and the aggregate amount of DOC/PSF production, across all these plants, for the year. A plant will always be part of a site.

A plant (i.e. production facility, workshop) is defined as: "*a relatively self-contained area, structure or building containing one or more units with auxiliary and associated infrastructure*", such as:

- i) Small administrative section;
- ii) Storage/handling areas for feedstock and products;
- iii) Effluent/waste handling/treatment area;
- iv) Control/analytical laboratory;
- v) First aid service/related medical section; and
- vi) Records associated with the movement into, around and from the site, of declared chemicals and their feedstock or product chemicals formed from them, as appropriate.

If a PSF plant does not produce more than 30 tonnes of an individual PSF-chemical, within its aggregated PSF production, it is not declarable as a PSF plant i.e. it is not included in the number of PSF plants on-site under Questions 10 and 12. However,

1. the PSF plant must be included in the total number of DOC plants present on the plant site;
2. the PSF plant's production must be included when calculating the total aggregate DOC/PSF production for the plant site as a whole.

In calculating the aggregate amount of production of DOCs at the site, the production data should be aggregated to include:

- a) In the case of production of two or more DOCs at the same plant, the aggregate of all of the DOCs;
- b) In the case of multi-step processes within the same plant, only the quantity of the final product, if it is a DOC, or the quantity of the last intermediate in the multi-step process that meets the definition of a DOC;
- c) In the case of intermediates meeting the definition of a DOC and being used by another plant at the site to produce a DOC, the amount of the DOC intermediate and of the DOC product manufactured from it at the other plant.

Specific guidance on how to calculate intermediate production, as advised by the OPCW, is provided at Annex A.

d) In the case of manufactured products containing less than 100% of the DOC (e.g. synthesized at <100% or diluted), only the quantity of DOC contained in the product;

Example

In the previous calendar year, a site produced 12 tonnes of a 65% solution of a DOC chemical. In the declaration, the quantity of DOC produced should be reported as 7.8 tonnes (i.e. 65% of 12 tonnes).

Question 10 – Number of PSF Plants on Site

Please record the total number of PSF plants at the site. As indicated in the guidance under Questions 8/9, **a plant is only declarable as a PSF plant if it produced more than 30 tonnes of an individual PSF-chemical within its aggregated PSF production.**

Question 11 – PSF Production above 200 Tonnes

Indicate whether any one PSF plant produced more than 200 tonnes of an individual PSF chemical.

Question 12 – Number of PSF Plants in Each Production Range

Indicate the number of PSF plants in each of the given production ranges, at the declared site.

The aggregate amount of PSF production in each PSF plant should be calculated in order to determine the production range of that plant.

Declaration

The electronic declaration form must be electronically signed/authorised by a person of the appropriate level of responsibility who is in a position to verify the accuracy of the information and who has legal authority to sign on behalf of the company or organisation. Contact details can be updated using the 'Update My Details' link from the workbasket menu.

Position (Already pre-filled but can be amended)

Please choose the description which most closely matches your position within the organisation on whose behalf you are submitting the declaration.

Viewing Previous Years' Declarations

To view your site's electronic declarations from previous years, you should access the "CWC Declarations" option on the left-hand menu which provides access to all past declarations made via the search function.

Annexes to annual past declaration guidance notes for DOC and PSF chemicals

Annex A - Definitions

The following definitions are from the Chemical Weapons Convention and may differ slightly from their normal meaning within the chemical industry.

Discrete Organic Chemical (DOC)

Any chemical belonging to the class of chemical compounds consisting of all 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).

However, the term does NOT include:

- a) chemicals included on Schedules 1, 2 and 3 of the Convention;
- b) inorganic chemicals;
- c) metal carbides;
- d) chemicals or chemical mixtures produced biologically;
- e) polymeric and oligomeric substances consisting of repeating units, and formed by the chemical reaction of monomeric substances;

The following cases should be noted:

Compounds of carbon which are generally considered inorganic, but are not specifically excluded from the definition of a DOC, are still considered to be DOCs. Examples of these compounds include cyanide salts, such as sodium cyanide.

Sites exclusively producing explosives or hydrocarbons are exempt from the reporting requirements of DOCs. However, if any plant at these sites produces DOCs in addition to hydrocarbons or explosives, then the quantity of hydrocarbons or explosives (if they meet the definition of a DOC) will also need to be declared.

PSF-Chemical

A DOC containing one or more of the elements phosphorus, sulfur and fluorine. PSF-chemicals are a subcategory of DOCs.

Production

Production is defined under the CWC as “formation through a chemical reaction or synthesis” - that is, arising from a chemical change involving the formation and/or breaking of chemical bonds.

It is also understood, for declaration purposes, to include the last DOC intermediate in a multi-step process when the final product does not meet the definition of a DOC.

For declaration purposes, production should not include:

- a) DOCs produced as waste by-products or in waste treatment facilities, unless isolated for other uses or for sale;
- b) DOCs produced by the mixing or recycling of DOCs that have already been declared;
- c) DOC intermediates completely converted to another DOC in the same process, in the same plant.

Examples of Processes

The following are processes that involve chemicals or mixtures of chemicals that are NOT considered "production" (i.e. involving chemical synthesis), do not result in DOC end-products and are therefore excluded from CWC declaration requirements on DOCs:

- Fermentation
- Extraction
- Purification
- Distillation
- Filtration
- Formulation
- Blending

Isolated Intermediates

During production of the DOC end-product, DOC intermediates may be isolated for a variety of reasons. The guidance below considers five specific examples where DOC intermediates are isolated and whether their production should be declared.

Example 1

During the production of DOCs, a DOC intermediate, formed in a multi-step process, may be isolated, removed from the production plant and stored in a warehouse on-site, before being re-introduced into the same plant to be used in the synthesis of another DOC. In this situation, only the final DOC should be declared.

Example 2

As an extension of Example 1, a DOC intermediate may be isolated and stored on-site, with the intention of re-introducing it into its production plant, to be used in the synthesis of a further DOC. If this intermediate remained in storage across the calendar year-end and was subsequently sold, in its intermediate form, its production should not be declared as the intermediate was not produced in the same calendar year that it was sold. During an inspection, the OPCW only verify the aggregate annual production of DOC and PSF chemicals (including any intermediates described above) produced exclusively in the previous calendar year.

Example 3

A DOC intermediate may be produced in one plant, isolated and subsequently transferred to a different plant on the same site for further synthesis to produce another chemical that meets the definition of a DOC. In this situation, both the production of the DOC intermediate and the final DOC should be declared.

Example 4

In some situations a DOC intermediate may be transferred for storage off-site. Off-site could mean:

- a) in a non-contiguous part of the declared plant site separated by some distance;
- b) a warehouse outside the declared perimeter of the plant site that is owned and operated by a third party; or
- c) a warehouse owned by a third party that may fall within the perimeter of the declared plant, but is not under the operational control of the owner of the plant site.

If the DOC intermediate is stored off-site, its condition cannot be verified during an OPCW inspection. **Production of the DOC intermediate should be declared** – regardless of whether or not it will be brought back to the same plant on-site, to produce another DOC at a later date.

Example 5

If in-line storage or holding tanks are used during the production of DOC intermediates and quantities of the intermediates are tapped off for sale, then **only the amount of the intermediate sold should be included in the declaration of the site's aggregated production.**

Annex B - Examples of declarable and non-declarable chemicals under the CWC

Examples of DOCs declarable under the CWC:

Chemical Name	CAS Number	Explanation
Acetophenone	98-86-2	DOC - meets the definition
6-Chloro-2-Methyl Aniline	87-63-8	
2-Amino-3-Hydroxybenzoic Acid	548-93-6	
Acetone	67-64-1	
Benzoyl Peroxide	94-36-0	
Propionic Acid, Sodium Salt	137-40-6	
Methyl Acrylate	96-33-3	
Bromoxynil	1689-84-5	
Octadecanoic Acid	57-11-4	
Propylene Glycol	57-55-6	
Toluene	108-88-3	DOC - meets the definition but if the site exclusively produces hydrocarbons, these DOCs are not declarable
Cyclohexane	110-82-7	
Silver cyanate	3315-16-0	DOC - generally considered inorganic, but are not specifically excluded from the definition of a DOC
Sodium thiocyanate	540-72-7	
Potassium cyanide	151-50-8	
Sodium Xylenesulphonate	1300-72-7	DOC/PSF – meets the DOC definition and contains sulfur
1-Bromo-4-Fluorobenzene	460-00-4	DOC/PSF – meets the DOC definition and contains fluorine
Triphenylphosphine	603-35-0	DOC/PSF – meets the DOC definition and contains phosphorus

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Ethanol (from synthesis)	64-17-5	DOC – is declarable when produced by chemical synthesis (e.g. from ethene)
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Examples of chemicals which do not meet the definition of DOCs and are not declarable under the CWC:

Chemical Name	CAS Number	Explanation
Sodium Carbonate	497-19-8	Specifically excluded – “all compounds of carbon except for ...metal carbonates”
Carbon dioxide	124-38-9	Specifically excluded – “all compounds of carbon except for its oxides, sulphides”
Carbon disulphide	75-15-0	
Carbonyl sulphide	463-58-1	
Calcium Carbide	75-20-7	Chemicals “only containing carbon and metal” are excluded
Polyvinyl Alcohol	9002-88-4	Polymers, whether or not containing phosphorus, sulfur or fluorine, are not covered – they do not meet the “discrete” part of the DOC definition
Polydimethylsiloxane	9016-00-6	
Polyacrylamide	9003-05-8	
Cellulose, Carboxymethyl Ether, Sodium Salt	9004-32-4	
Starch	9005-25-8	
Polyethylene Glycol	25322-68-3	
Polytetrafluoroethylene	9002-84-0	
Polysulfone	25135-51-7	
Phosphoric acid	7664-38-2	
Sulfuric acid	7664-93-9	
Sulfur hexafluoride	2551-62-4	
Ethanol (from fermentation)	64-17-5	The definition of DOCs does not cover chemicals produced biologically

Annex C - Product Group Codes (PGC)

Note: Typical chemicals, where included in a PGC description, are for illustrative purposes only and do not represent a complete list of all chemicals within the group and do not imply that specific chemicals are being declared.

Code	Description: Chemicals and Related Products
511	<p>Hydrocarbons and their halogenated, sulphonated, nitrated or nitrosated derivatives</p> <p>Typical chemicals include: aliphatic hydrocarbons as ethylene, propylene, butylenes etc., cyclic hydrocarbons as benzene, toluene, xylene, ethylbenzene, cumene, ethylene dichloride, vinyl chloride, trichloroethylene, chlorododecane, tetrafluoroethylene, nitrobenzene, di-nitrotoluene, hexafluoropropene</p>
512	<p>Alcohols, phenols, phenol-alcohols, and their halogenated, sulphonated, nitrated or nitrosated derivatives, except Methanol (see Code 519)</p> <p>Typical chemicals include: glycerol, ethanol, propanol, butanol etc., phenol, ethambutol hydrochloride</p>
513	<p>Carboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives</p> <p>Typical chemicals include: Isophthaloyl chloride, terephthaloyl chloride, methyl acetate, ethyl acetate, N-butyl acetate, malic acid, fumaric acid, maleic anhydride, phthalic anhydride, acetic anhydride, heptafluorobutyrol peroxide, dodecafluoroheptanoyl peroxide</p>
514	<p>Nitrogen-function compounds, except Urea (see Code 519)</p> <p>Typical chemicals include: octylated diphenylamine, nonylated diphenylamine, ethylenediamine, cyclohexylamine, aniline, 1,3-diaminocyclohexane, diphenylamine, azodicarbonamide, toluene di-isocyanate, organic cyanides, methylene difenyl isocyanate</p>
515	<p>Organo-inorganic compounds, heterocyclic compounds, nucleic acids and their salts, and sulphonamides</p> <p>Typical chemicals include: aromatic sulfonium salts, butyllithium, trimethyl borate, metal complexes of triphenyl phosphate</p>
516	<p>Other organic chemicals, except Formaldehyde & Methyl tert-butyl ether (MTBE) (see Code 519)</p> <p>Typical chemicals include: ethers, dialkyl peroxides, methylethylketone, furfural, dimethyl phosphate, sodium dimethyl dithiocarbamate, tetra alkyl thiuramdisulfide, trimethyl phosphate, ethyl tert-butyl ether (ETBE)</p>

519	Methanol, urea, formaldehyde, methyl tert-butyl ether (MTBE), detergents produced by neutralisation of sulphonic acids and soap produced by saponification of a fatty acid (these chemicals were listed as codes 512A, 514A, 516A, 516B, 554A and 554B in the Declaration Handbook 2008)
523	Metal salts and peroxy salts, of inorganic acids Typical chemicals include: sodium cyanide, ammonium cyanide, ammonium carbonate, ammonium bicarbonate, hexacarbonyliron
524	Other inorganic chemicals; organic and inorganic compounds of precious metals
531	Synthetic organic colouring matter and colour lakes, and preparations based thereon Typical chemicals include: azo based dyes, naphthazarine based dyes (dibromonaphthazarin), triphenyl methane dyes (TPM), quinoline, anthraquinone, pyrene, sulfanilic acid, fluorescent brightening agents, luminophores
532	Dyeing and tanning extracts, and synthetic tanning materials
533	Pigments, paints, varnishes and related materials
541	Medicinal and pharmaceutical products Typical chemicals include: cephalosporins, amino acid derivatives, synthetic glycosides, atracurium besilate, diketone, alkylidene nitrile, lactone, tinidazole, nimesulide, butoconazole, flutamide, famotidine, penicillin or derivatives, streptomycins or derivatives, other antibiotics, synthetic insulin, phenothiazine compounds
551	Essential oils, perfume and flavour materials
553	Perfumery, cosmetic or toilet preparations (excluding soaps)
554	Soap, cleansing and polishing preparations, except Detergents produced by neutralisation of sulphonic acids & Soap produced by saponification of a fatty acid (see Code 519)
562	Synthetic fertilizers
591	Insecticides, rodenticides, fungicides, herbicides, anti-sprouting products and plant-growth regulators, disinfectants and similar products, put up in forms or packings for retail sale or as preparations or articles (e.g. sulfur-treated bands, wicks and candles, and fly papers) Typical chemicals include: cypermethrin, glyphosate and derivatives, acephate, methamidophos, pyrethroid, dimethoate, malathion, triazoles, parathion, trifluralin, atrazine, diuron (DCMU), endosulfan, phenoxy family herbicides, propanil, sulfosulfuron, fipronil, parathion, methamidophos, acephate, chloramine-T, trifluralin, phoxim, zineb, tebuconazole, monocrotophos, diquat, paraquat, acifluorfen, lactofen, clomazone

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592	Starches, inulin and wheat gluten; albuminoidal substances; glues
593	Explosives and pyrotechnic products
597	Prepared additives for mineral oils and the like; Prepared liquids for hydraulic transmission; Anti-freezing preparations and prepared de-icing fluids; Lubricating preparations Typical chemicals include: di-2-ethylhexyl carbonate, di-3,5,5-trimethylhexyl carbonate
598	Miscellaneous chemical products
599	Others

This publication is available from: www.gov.uk/government/publications/chemical-weapons-convention-how-to-complete-a-declaration

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