

# labODS Registry

# Manual

# MANUAL FOR LABORATORIES AND SUPPLIERS OF ODS FOR LABORATORY AND ANALYTICAL USES

Version 1.0

January 2017

ODS Licensing System v 1.19

# **Important note:**

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#### 1. Introduction

Regulation (EC) No 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer (the Regulation<sup>1</sup>) includes requirements for the use of controlled substances<sup>2</sup> for laboratory and analytical purposes in the EU. In this manual, these substances are referred to as ozone-depleting substances (ODS).

The Regulation prohibits both the placing on the market and use of ODS. However, there are exemptions to the ban on their use. A company can use ODS for essential laboratory or analytical purposes if it is registered with the European Commission (the Commission<sup>3</sup>) in the labODS registry (labODS).

The labODS registry is the Commission's tool for issuing labODS numbers to EU internal distributers of ODS for laboratory and analytical uses and end-users of ODS in laboratories.

This manual is addressed to those EU laboratories that use ODS for laboratory or analytical uses and purchase their stocks from an EU supplier. It also applies to distributers of ODS for laboratory or analytical uses that buy them from or sell them to companies located in the European Union (EU). Companies obtaining their supplies from outside the EU should refer to the ODS Licensing System Manual: Part III: Manual for undertakings (importers/exporters/producers).<sup>4</sup>

This manual describes the following processes:

- applying for a labODS number;
- administration of the labODS account and updating account information;
- checking the validity of a labODS number;
- disabling an account.

The annexes contain:

- a list of alternatives to ODS for laboratory or essential uses;
- definitions of terms used in this manual.

In summary, this manual provides practical information for laboratories and distributers on how to use labODS and how to obtain a labODS number. Titles of some sections are presented in the form of questions to guide the reader to missing information.

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http://eur-lex.europa.eu/ search — year: 2009, number: 1005, type: Regulation.

The controlled substances are listed in Annex I to Regulation (EC) No 1005/2009.

<sup>&</sup>lt;sup>3</sup> European Commission, Directorate-General for Climate Action, Unit A.2; e-mail: <u>clima-ods@ec.europa.eu.</u>

https://circabc.europa.eu/w/browse/937fcece-ea80-4fb2-9802-5b08407c874c; also available on the CIRCABC online forum — go to the 'Library' tab, the '1. Manuals' folder and the 'Undertakings (Importers, Exporters and Producers)' folder.

#### 2. WHICH SUBSTANCES ARE ODS?

The substances included in the labODS registry are listed in Annex I to the Regulation. They are split into nine groups as shown in the table below.

Table 1. Groups listed in Annex I of the Regulation (EC) No 1005/2009

Group	Abbreviation	Description
Groups I and II	CFCs	Chlorofluorocarbons
Group III	Halons	Halons (1211, 1301 and 2402)
Group IV	CTC	Carbon tetrachloride
Group V	TCA	1,1,1-Trichloroethane
Group VI	MB	Methyl bromide
Group VII	HBFCs	Hydrobromofluorocarbons
Group VIII	HCFCs	Hydrochlorofluorocarbons
Group IX	BCM	Bromochloromethane (Halon 1011)

All isomers and all forms of the above-mentioned substances are covered by the Regulation, including, for example, radioactively marked substances.

Any mixture, product or equipment that contains these substances or relies on them in order to function is also covered by the Regulation.

It covers all quantities of these substances and there is no minimum threshold concerning exemptions.

# 2.1. Quality, packaging and labelling requirements for laboratory ODS

ODS used for essential laboratory or analytical purposes need to match certain specifications as described in Annex V to the Regulation and summarised below.

Table 2. Minimum purity requirements listed in Annex V of the Regulation (EC) No 1005/2009

Substance	Minimum purity requirement
1,1, 1-Trichloroethane	99.0 %
Carbon tetrachloride	99.5 %
CFC-11, CFC-12, CFC-13, CFC-113, CFC-114	99.5 %
Other ODS with boiling point >20 °C	99.5 %
Other ODS with boiling point <20 °C	99.0 %

Substances and mixtures meeting the purity requirements indicated above may be placed on the market only:

- in reclosable containers or high pressure cylinders smaller than three litres;
- in 10 millilitre or smaller glass ampoules;
- when marked clearly as substances that deplete the ozone layer, restricted to laboratory and analytical uses;
- when it is specified that used or surplus substances should be collected and recycled, if practical. The material should be destroyed if recycling is not practical.

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#### 3. WHICH ARE THE PERMITTED AND PROHIBITED USES?

# 3.1. The concept of essential use

While the Regulation prohibits the placing on the market and use of ODS, there are exemptions regarding their use. An EU company can use ODS if they are for essential laboratory or analytical purposes and if the company is registered with the Commission. Regulation (EU) No 291/2011<sup>5</sup> lays down a non-exhaustive list of laboratory and analytical uses that are considered to be essential, and a second list of uses that are considered to be non-essential.

The use of ODS for laboratory or analytical purposes is only allowed if the use is essential. Usage is considered essential in those cases where there is no technically and economically feasible alternative or where the alternative is less acceptable for environmental and health reasons.

All ODS are classified as dangerous substances under the chemicals legislation. Whether or not the use is essential has to be evaluated in the general risk analysis that has to be carried out before dangerous substances are used.

ODS are not only dangerous for the environment but some are also a danger to human health. Normally there is no need to use ODS, since less harmful alternatives are readily available for most cases.

#### 3.2. Non-essential uses (prohibited uses)

Based on Regulation (EU) No 291/2011 the following uses cannot be considered as essential laboratory or analytical uses. Therefore, using ODS for the following applications is prohibited:

- a) refrigeration and air-conditioning equipment used in laboratories, including refrigerated laboratory equipment such as ultra-centrifuges;
- b) cleaning, reworking, repair, or rebuilding of electronic components or assemblies;
- c) preservation of publications and archives;
- d) sterilisation of materials in a laboratory;
- e) any use in primary or secondary education;
- f) as components in experimental chemistry kits available to the general public and not intended for use in higher education;
- g) for cleaning or drying purposes, including the removal of grease from glassware and other equipment;

http://eur-lex.europa.eu/ search — year: 2011, number: 291, type: Regulation.

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<sup>&</sup>lt;sup>5</sup> Commission Regulation (EU) No 291/2011 of 24 March 2011 on essential uses of controlled substances other than hydrochlorofluorocarbons for laboratory and analytical purposes in the Union under Regulation (EC) No 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer

- h) for the determination of hydrocarbons, oils and greases in water, soil, air or waste (see Annex 1 for alternatives);
- i) testing of tar in road-paving materials (see Annex 1 for alternatives);
- j) forensic finger-printing;
- k) testing of organic matter in coal;
- 1) as a solvent in the determination of cyanocobalamin (Vitamin B12) and bromine index (see Annex 1 for alternatives);
- m) selective solubility in the controlled substance, including the determination of cascarosides, thyroid extracts, and the formation of picrates;<sup>6</sup>
- n) to pre-concentrate analytes in chromatographic methods (e.g. high performance liquid chromatography (HPLC), gas chromatography (GC), adsorption chromatography), atomic absorption spectroscopy (AAS), inductively coupled plasma spectroscopy (ICP), X-ray fluorescence analysis;<sup>7</sup>
- o) for the determination of iodine index in fats and oils<sup>8</sup> (see Annex 1 for alternatives);
- p) any other laboratory or analytical use for which a technically and economically feasible alternative is available.

Note that, although not explicitly stated above, most cases in which ODS are used as solvents, diluents or eluents are not essential because alternative solvents can be used.

#### 3.3. Essential uses (permitted uses)

There is no comprehensive list of permitted ODS uses for laboratories. A non-exhaustive list of essential uses is provided below. It is based on the list in Regulation (EU) No 291/2011. The following uses can usually be considered as essential laboratory or analytical uses. Their use is permitted in the following instances provided that no non-ODS alternative is available:

- a) the use of controlled substances as a reference or standard:
- to calibrate equipment which uses controlled substances,
- to monitor emission levels of controlled substances,
- to determine residue levels of controlled substances in goods, plants and commodities;

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<sup>&</sup>lt;sup>6</sup> This includes all sorts of extraction processes such as Soxhlet extractions, liquid-liquid extraction, solid-phase extraction and recrystallisation. It also covers all kinds of thin layer chromatography (TLC).

<sup>&</sup>lt;sup>7</sup> Pre-concentration includes processes such as liquid-liquid or solid-phase extraction. This also covers the use of ODS as solvents in thin layer chromatography or their use as an eluent in HPLC.

<sup>&</sup>lt;sup>8</sup> Although this is limited to fats and oils, any other matrix for which alternative solvents are available constitutes a non-essential use covered by the general prohibition in (p).

- b) the use of controlled substances in laboratory toxicological studies;
- c) laboratory uses in which the controlled substance is transformed in a chemical reaction (laboratory feedstock uses);
- d) the use of methyl bromide inside a laboratory to compare the efficacy of methyl bromide and its alternatives;
- e) the use of carbon tetrachloride as a solvent for bromination reactions involving N-bromosuccineimide (NBS);
- f) the use of carbon tetrachloride as a chain transfer agent in free-radical polymerisation reactions;
- g) any other laboratory or analytical use for which a technically and economically feasible alternative is not available.

# 3.4. Other uses for which alternatives are usually available

In its 2009 and 2010 progress report the Technology and Economic Assessment Panel<sup>9</sup> established under the Montreal Protocol identified a number of procedures for which alternatives to the use of ODS are usually available. Hence ODS should be avoided for the following uses:

- a) analyses in which the ODS is used as a solvent for spectroscopic measurement, including the recording of infrared and nuclear magnetic resonance spectra;
- b) analyses in which the ODS is used as a solvent for electrochemical methods;
- c) titration of iodine with thiosulfate (iodometric analyses), including the determination of iodine, copper, arsenic or sulphur;
- d) miscellaneous analyses, including:
- stiffness of leather,
- jellification point,
- specific weight of cement,
- gas mask cartridge breakthrough;
- e) use as a solvent in organic chemical synthesis reactions, including O- and N-difluoromethylation, infrared (IR) spectroscopy, raman spectroscopy and nuclear magnetic resonance (NMR) spectroscopy;
- f) laboratory uses of methyl bromide as a methylating agent;
- g) iodine partition and equilibrium experiments;
- h) analysis of polydimetylsiloxane and medicinal products such as simethicone that contain this substance:

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<sup>&</sup>lt;sup>9</sup> http://ozone.unep.org/en/assessment-panels/technology-and-economic-assessment-panel

i) determination of porosity of activated carbon.

More information on the above uses is available in the 2009 and 2010 progress report of the Technology and Economic Assessment Panel (see Annex 1).

#### 4. How do I get a LabODS number?

Companies that wish to take advantage of the exemption for essential laboratory or analytical uses need to register in labODS registry and obtain a labODS number. The labODS registry is the Commission's tool for issuing labODS numbers to EU internal distributers of ODS for laboratory and analytical uses and end-users of ODS in laboratories.

You can access labODS under the following URL:

https://webgate.ec.europa.eu/ods2/domain/labods

Follow the steps below to receive a labODS number.

# 4.1. Obtain a username and password

LabODS is password protected. Secure access to the programme is ensured by EU login. If you already have access to other Commission applications such as the ODS Licensing System or the F-gas Portal you may use the same username and password to log in to labODS. The steps for creating new EU Login password are shown below.

# Box 1. How do I create a password?

- 1. Go to the labODS page. https://webgate.ec.europa.eu/ods2/domain/labods
- 2. The EU login page is displayed. Select 'Create an account'.
- 3. The sign-up page is displayed. Enter your personal details and submit the request.
- 4. You will receive an e-mail with an activation link. 10
- 5. The activation link takes you to the page where you can set your password. Create a password following the below rules:
- the password must be at least 10 characters long
- the password must contain three out of the four following character types:

Upper case: A to Z;Lower case: a to z;Numeric: 0 to 9;

- Special characters:!'#\$%&'()\*+,-./:;<=>?@[\]^\_`{|}~
- 6. Use your e-mail address and new password upon your next login <a href="https://webgate.ec.europa.eu/ods2/domain/labods">https://webgate.ec.europa.eu/ods2/domain/labods</a>
- 7. You will be directed to labODS.

Your password in EU login will be valid for 6 months. Afterwards you will be automatically asked to change it. This password can also be used for accessing other Commission applications.

# 4.2. Check if your organisation is already registered

When you log in the first time in labODS, the system checks the VAT number to confirm that no one has registered your organisation in labODS before. A welcome page will be displayed (see Figure 1).

If your VAT number is not yet registered in labODS you can proceed and register a new organisation.

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<sup>&</sup>lt;sup>10</sup> If you do not receive an e-mail with an activation link then: 1) check your spam box, 2) check if the e-mail address you provided for identification in EU Login is the same as the one you are using for receiving e-mails. 3) If the above are not applicable then reset the password in EU Login by clicking on 'Lost your password?'.

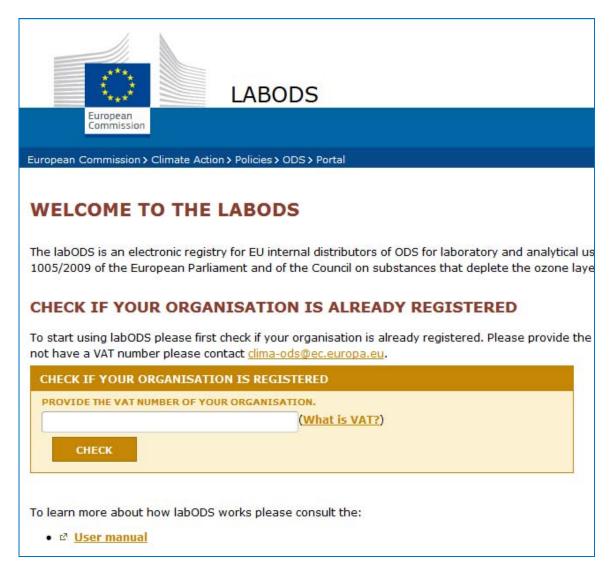


Figure 1. First screen in labODS

# 4.3. Register your organisation

Complete the registration form with information applicable to your organisation and submit the form. Below is a description of the sections you need to complete in the registration form.

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Table 3. Sections in the registration form

Section	Content		
Organisation details	Provide the address and telephone number of the organisation you are registering. The fields marked with an asterisk (*) are mandatory. Select the organisation type from the drop-down menu.		
Contact person	The information in this section is filled in automatically based on data provided when you created your password.  Please read the security notice and privacy statement.		
Activity details	See below for information on how to complete this section. See 'Activity details' below.		
Declaration	The information in this section is filled in automatically based on data provided in the 'Activity details' section of the form.  Please read the list of banned uses.		
Other information	If necessary, you can provide additional information regarding your registration in the comment field. Use this section only to provide relevant additional information required for the application process.		

# **Activity details:**

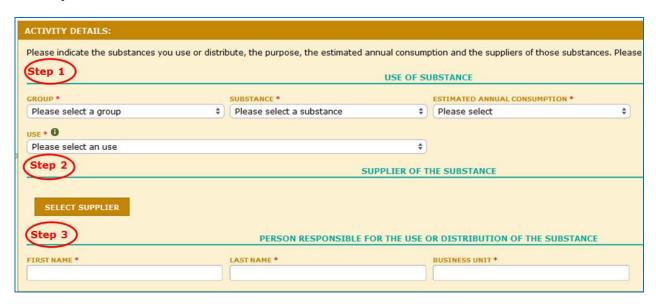


Figure 2. Activity details section in labODS registry.

The image above shows the main section of the labODS registration form. It must be completed in 3 steps. They are described below.

# Step 1 — Use of substance

The first drop-down menu in this section shows substance groups (see chapter 2 above). The second drop-down menu is generated after you select the substance group. The activity details section shows a list of substances of the group which you selected. Select

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the substance you wish to declare and then provide the estimated annual consumption of this substance. A drop-down with range in kg will be displayed.

Next select the use of the substance. The drop-down menu shows a list of uses which are allowed (see chapter 3 above).

# Step 2 — Supplier of the substance

When you click on button 'Select supplier', you find a table of suppliers registered in the system (see Figure 3). Select your supplier from the list. Filter the list by country to check if your supplier is on it. You can also enter the name of the supplier for a more precise search.

If you cannot find your supplier in the existing list you should add the supplier. Go to 'Add new supplier' at the bottom of the screen.



Figure 3. Select supplier of ODS

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<sup>&</sup>lt;sup>11</sup> In this manual, words written in bold and in inverted commas (\*) refer to command buttons.

# Step 3 — Person responsible for the use or distribution of the substance

For each substance which you declare you must provide the name of the person who will be using it or distributing it. This allows communication with the relevant contact persons.

# Step 4 — Add to declaration

Click the button 'add to declaration' to finalise this step.

## 4.4. Submit your registration form

Click the button 'submit' to finalise your registration.

Generally, when the application is submitted the status of the form changes to REQUESTED. 12 You will be informed by e-mail about the next steps.

The 'status' of the form is visible in the top left-hand corner of your screen. It denotes the progress made in the form. The table below presents the colour-coding and the description for the various statuses.

Table 4. Statuses of labODS declaration

Status	Description
DRAFT <sup>13</sup>	Your form has not been submitted by you yet. It has only been saved. The purchase of ODS is NOT ALLOWED. You must submit the form.
REQUESTED	You submitted the form. Your application has not been approved by the Commission yet. The purchase of ODS is <u>NOT ALLOWED</u> yet.
REVISION	The Commission has sent the form back to you. Changes need to be done. You must resubmit the form. The purchase of ODS is NOT ALLOWED yet.*
VALID	The purchase of ODS can take place. The labODS number is valid.**
EXPIRED	The validity period of the labODS number has ended.** The purchase of ODS is NOT ALLOWED anymore. **

<sup>\*</sup> You will receive an e-mail indicating why the application was sent back. The same explanation will appear in the 'Comment' column in the 'history' table at the bottom of the labODS form.

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<sup>\*\*</sup> LabODS numbers are valid for 2 years. See chapter 5.4.

<sup>&</sup>lt;sup>12</sup> Applications may be processed automatically by the system or manually by the Commission. There is a set of automatic checks in place to verify applications.

In this manual, words written in capitals refer to statuses for the form.

#### 5. HOW CAN I UPDATE MY FILE?

Under the Regulation registered organisations are required to update their information when changes occur.

## **5.1.** Add another person to the account

There is only one declaration per organisation in labODS and therefore more users may need access to the same account.

You can add an employee of your organisation as a new user of your account in the labODS. The new user will be granted access to the system and receive e-mails relating to the labODS declaration.

Similarly, you can remove any person who no longer needs access. It is crucial to keep this information up to date, in particular the e-mail address, as e-mail messages will be sent to all users indicated in the form.

In order to add or delete a user, you must change the information in the 'Manage access' section in your account. Enter your declaration, select 'Edit user access' at the bottom of the section and make the changes in the users section as indicated in Figure 4. Select 'Add' to confirm the introduction of a new user.

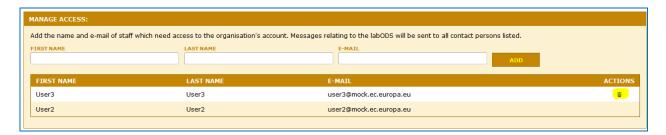


Figure 4. Managing access by adding and deleting users

The names and e-mail addresses of employees in the labODS are protected. See the Privacy Statement for information on the use of personal data in labODS. 14

The newly added user can access labODS under the following URL <a href="https://webgate.ec.europa.eu/ods2/domain/labods">https://webgate.ec.europa.eu/ods2/domain/labods</a>. A password for the e-mail address which is listed in labODS must be created. Once the new user has access to the form he/she can add additional uses of the substances to the list in the section 'Declaration'.

## 5.2. Change business information

If there are changes concerning (i) your supplier, (ii) the substance used, (iii) the purpose of the substance, or (iv) the estimated annual consumption of the substance, then you must update the form.

If you need to update information in your form you must click on 'Edit' at the bottom of the screen (see Figure 5). Next, carry out the necessary changes and select 'Submit' to confirm the changes.

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https://circabc.europa.eu/w/browse/0bb345a9-73c2-4e50-833b-7a2d9b35270a; also available on the CIRCABC online forum — go to the 'Library' tab and the '3. Date protection & security' folder.

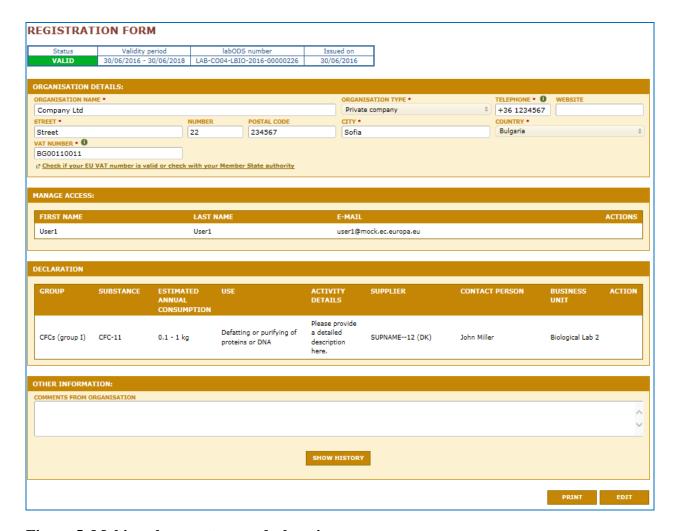


Figure 5. Making changes to your declaration

If you re-submit the form, you will receive a new labODS number. The previous number will not be valid anymore. Check the status of the submitted form to see if you received a new valid labODS number (see chapter 4.4).

#### 5.3. Cancel the labODS account/number

The labODS account and number can be disabled if an organisation no longer requires it, such as when a business using the ODS ceases trading. To disable an account, you must send a request by e-mail to the Commission indicating the reasoning for it. When an account is disabled, it will no longer be accessible by the company. The personal data of the former users will not be visible to any other labODS users, including the Commission and the competent authority. However, all non-personal data is retained. The Commission and competent authorities will have access to the company's declarations.

#### 5.4. Validity period of a labODS number

A labODS number is valid for the period of 24 months (2 years) after its issuance. When your labODS number expires, you will have to apply for a new number. An e-mail will be sent to you advising that the labODS information should be updated. If no update is made after 30 months (2.5 years) following the issuing of the labODS number then it will expire and be classified as invalid. Distributers will not be able to sell ODS to your



#### 6. HOW CAN A SUPPLIER CHECK IF A LABODS NUMBER IS VALID?

Distributers check if a labODS number is valid before they sell the ODS to a laboratory by consulting the online labODS validity register. Anyone can verify if a labODS number is valid using these means.

You can access labODS validity register under the following URL:

## https://webgate.ec.europa.eu/ods2/public/labods/status

Write in the labODS number, select the button 'Check' and information about the company's declaration will be displayed. It will show that the labODS number is valid and that the sale is allowed or that the labODS number is not valid and that the sale is prohibited.

See Figure 6 for the result of a search in the labODS validity register for a valid number and Figure 7 for an invalid number.

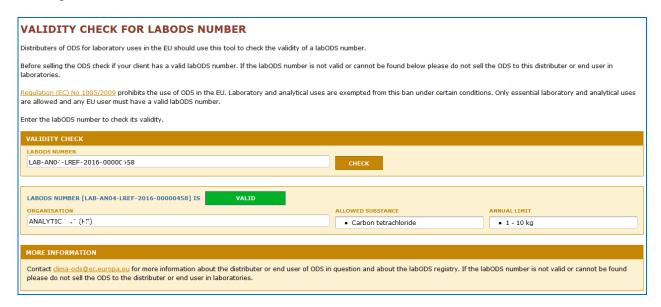


Figure 6. ODS sale allowed

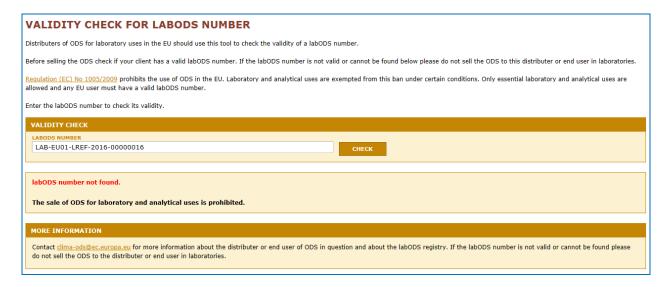


Figure 7. ODS sale prohibited

The labODS validity register is a database with general information about all companies registered and allowed to use ODS. No password is required for access.

## 7. CONTACT INFORMATION

A list of contact points at the Commission and Member States' competent authorities is available on the CIRCABC online forum, in the 'Library' tab in the '4. Contact information' folder. <sup>15</sup>

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<sup>15</sup> https://circabc.europa.eu/w/browse/91661b30-3bd7-4b25-b083-dbc64092175c

#### **ANNEXES**

# Annex 1. Alternatives to the use of ODS for laboratory and essential uses

Information on alternative methods not depending on ODS is widely available online and in the trade press. The following are some of the documents that provide information on potentially suitable alternatives:

- 2010 Progress Report of the Technology and Economic Assessment Panel (pages 53-56)
   <a href="http://ozone.unep.org/en/Assessment\_Panels/TEAP/Reports/TEAP\_Reports/teap-2010-progress-report-volume2-May2010.pdf">http://ozone.unep.org/en/Assessment\_Panels/TEAP/Reports/TEAP\_Reports/teap-2010-progress-report-volume2-May2010.pdf</a>
- 2009 Progress Report of the Technology and Economic Assessment Panel (pages 51-56)
   <a href="http://ozone.unep.org/Assessment Panels/TEAP/Reports/TEAP\_Reports/Teap\_progress\_report\_May2009.pdf">http://ozone.unep.org/Assessment Panels/TEAP/Reports/TEAP\_Reports/Teap\_progress\_report\_May2009.pdf</a>
- 2008 Progress Report of the Technology and Economic Assessment Panel (pages 54-62)
   <a href="http://ozone.unep.org/Assessment\_Panels/TEAP/Reports/TEAP\_Reports/Teap\_progress\_report\_May2008.pdf">http://ozone.unep.org/Assessment\_Panels/TEAP/Reports/TEAP\_Reports/Teap\_progress\_report\_May2008.pdf</a>
- Use of ozone-depleting substances in laboratories (Nordic Council project) <a href="http://www.norden.org/en/publications/publications/2003-516">http://www.norden.org/en/publications/publications/2003-516</a>

A non-exhaustive list of alternative methods is also available below.

Determination of hydrocarbons (oil, grease, etc.) in water

Area	Old method using ODS	New method without ODS
Determination of polycyclic aromatic hydrocarbons by HPLC FID after liquid-liquid extraction		ISO 7981-1:2005
Determination of hydrocarbon oil index — using solvent (petroleum ether) extraction and gravimetry		ISO 9377-1:1998
Gas-chromatographic determination of monocyclic aromatic hydrocarbons, naphthalene and several chlorinated compounds after purge-and-trap		ISO 15680:2003
Determination of 15 polycyclic aromatic hydrocarbons (PAH) in water by HPLC after liquid-liquid extraction		ISO 17993:2002
Hydrocarbon oil index by gas chromatography after n-hexane extraction		ISO 93772:2000
Hydrocarbons in water	ASTM D3921-85 (1991)	ASTM D3921-96(2003)

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Area	Old method using ODS	New method without ODS
Standard test method for dimer/trimer of chlorotrifluoroethylene (S-316) recoverable oil and grease and non-polar material by infrared determination	US EPA 418.1	ASTM D7066-04el
Solvent-free membrane recoverable oil and grease by infrared determination		ASTM D7575-10e1
Volatile organic compounds in water by purge-and-trap capillary column gas chromatography with photoionisation and electrolytic conductivity detectors in series		US EPA 502.2
Volatile organics by gas chromatography after purge-and-trap		US EPA 524.2
N-hexane extractable material and silica gel treated n-hexane extractable material by gravimetry	US EPA 413.1 US EPA 413.2	US EPA 1664 Revision A / EPA-821-R-98-002 May 1999
Separatory funnel liquid-liquid extraction		US EPA 3510C
Solid-phase extraction (SPE)		US EPA 3535
Soxhlet extraction		US EPA 3540c
Ultrasonic extraction		US EPA 3550b
Supercritical fluid extraction of total recoverable petroleum hydrocarbons by IR spectroscopy		US EPA 3560
Headspace gas chromatography		US EPA 3810
Hexadecane extraction and screening of purgeable organics		US EPA 3820
Non halogenated organics by GC/FID		US EPA 5015C
Aromatic and halogenated volatiles by gas		US EPA 5021B
chromatography using photoionisation and/or electrolytic conductivity detectors		US EPA 8021B
Purge-and-trap for aqueous samples		US EPA 5030B
Non-halogenated organics by GC/FID		US EPA 8015C
Volatile organic compounds by gas chromatography/mass spectrometry		US EPA 8260B

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Area	Old method using ODS	New method without ODS
Determination of organic and total carbon after dry combustion		ISO 10694:1995
Determination of polynuclear aromatic hydrocarbons by HPLC		ISO 13877:1988
Gas-chromatographic determination of the content of volatile aromatic hydrocarbons, naphthalene and volatile halogenated hydrocarbons after methanol extraction and purge-and-trap		ISO 15009:2002
Determination of hydrocarbon content (C10 to C40) by gas chromatography after extraction with heptane)		ISO 16703:2004
Solvent extraction of total petroleum hydrocarbons from soil and sediments using closed vessel microwave heating		ASTM D5765-05
Supercritical fluid extraction of total recoverable petroleum hydrocarbons and IR spectroscopy		US EPA 3560
Volatile organic compounds by gas chromatography/mass spectrometry		US EPA 8260B
Aromatic and halogenated volatiles by gas chromatography using photoionisation and/or electrolytic conductivity detectors		US EPA 5021B
n-Hexane extractable material for sludge, sediment, and solid samples (gravimetry)		US EPA 9071B

Determination of hydrocarbons (oil, grease, etc.) in waste, air and other matrices

Area	Old method using ODS	New method without ODS
Hydrocarbons (C10-C40) in waste by gas chromatography after heptane extraction		EN 14039:2004
Determination of hydrocarbon content in waste by gravimetry		EN 14345:2004
Volatile organic compounds by vacuum distillation in combination with gas chromatography/mass spectrometry (VD/GC/MS) (distillation and trapping)		US EPA 8261A
Air	US NIOSH 5026	US NIOSH TO 14 and

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Area	Old method using ODS	New method without ODS
		15
Tests for the assessment of surface cleanliness		ISO 8502 series

# Determination of iodine or bromine index

Area	Old method using ODS	New method without ODS
Iodine value of animal and vegetable fats	ASTM D1959-97	ISO 3961:2009
and oils	ASTM D 2710	
Bromine index of aromatic hydrocarbons by coulometric titration	ASTM D2710-99	ASTM D1492-08e1
Bromine index of aromatic hydrocarbons by electrometric titration	ASTM D2710-99	ASTM D5776-07e1

# Determination of moisture and water

Area	Old method using ODS	New method without ODS
Animal and vegetable fats and oils.  Determination of moisture and volatile matter content (heating method)		ISO 662:1998
Animal and vegetable fats and oils. Determination of water content. Entrainment method		ISO 934:1980
Animal and vegetable fats and oils. Determination of water content. Karl Fischer method (pyridine free)		ISO 8534:2008
Petroleum products and bituminous materials. Determination of water. Distillation method		ISO 3733:1999
Petroleum products. Determination of water. Potentiometric Karl Fischer titration method		ISO 6296:2000
Petroleum products. Determination of water. Coulometric Karl Fischer titration method		ISO 12937:2000

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# Determination of phenol in water

Area	Old method using ODS	New method without ODS
Water quality — Determination of phenol index — 4-Aminoantipyrine spectrometric methods after distillation		ISO 6439:1990
Water quality — Determination of selected monovalent phenols — Part 1: Gaschromatographic method after enrichment by extraction		ISO 8165-1:1992
Water quality — Determination of selected monovalent phenols — Part 2: Method by derivatisation and gas chromatography		ISO 8165-2:1999
Water quality — Determination of phenol index by flow analysis (FIA and CFA)		ISO 14402:1999
Standard test methods for phenolic compounds in water (chloroform)		ASTM D1783-01:2007

# Miscellaneous methods

Area	Old method using ODS	New method without ODS
Volatile matter in coal and coke	ASTM D3175-98	ASTM D3175-07
Testing of tar in road-paving materials		ASTM D2042-09
		EN 12592:2007
Lead content in gasoline	ASTM D 3237:97	EN 237:2004
		ASTM D 3237-06e1

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#### **Annex 2. Definitions**

#### Analytical use

An analytical use of ODS is described as the use of an ODS to identify compounds or to determine the proportions of components in a mixture, for example, the use of ODS as a reference material.

# Laboratory use

Examples of uses of ODS in a laboratory that are not analytical uses, include laboratory feedstock uses or uses of ODS in a toxicological study.

## Laboratory feedstock use

Laboratory feedstock use is the use of an ODS in a laboratory in a chemical synthesis process where the ODS is a reagent in the chemical transformation and is chemically converted from its original composition. This is different from cases where the ODS is used, for example, as a solvent or catalyst.

A use qualifies as laboratory feedstock use only if the product of the reaction is used in laboratories within your own company for research and development. The product or potential products from subsequent synthesis may not be given to third persons (regardless of whether or not payment is involved).

If the end product is, for example, sold or given to clients for testing, this is no longer considered as laboratory feedstock use but as normal feedstock use as defined in Regulation (EC) No 1005/2009 and subject to the relevant provisions.

# Laboratory ODS production

Laboratory ODS production is the production (synthesis) of an ODS in a laboratory for the purpose of research and development as an intermediate or end product. Such production will only qualify as laboratory ODS production if:

- the ODS is used in laboratories within your own company for research and development and is not made available to third persons (regardless of whether or not payment is involved);
- the ODS is not used for subsequent production of a product that is eventually placed on the market (regardless of whether or not payment is involved).

In any other case the production will be considered as production as defined in Regulation (EC) No 1005/2009 and will be subject to the relevant provisions.

#### Annex 3. Record of changes to the document

Version	Date	Description
1.0	01/2017	First version of the manual for laboratory users and suppliers.