



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL  
ENVIRONMENT  
Directorate A – Green Economy  
ENV.A.3 - Chemicals

**NOTE FOR THE ATTENTION OF COMPANIES PLACING ON THE MARKET OR USING  
BIOCIDAL PRODUCTS GENERATING ACTIVE SUBSTANCE(S) AND FALLING WITHIN THE  
SCOPE OF THE EU BIOCIDAL PRODUCTS REGULATION**

**Call for information on *in-situ* generated biocidal active substances**

This note is addressed to companies marketing or using chemical substances, devices, equipment or systems for the disinfection of air, drinking water, waste water, bathing water or other water, swimming pools, aquariums, air conditioning systems, chemical toilets, walls or floors in private or public facilities such as hospitals, processing or cooling systems in industrial facilities, or water distribution systems.

The note may also be of relevance to companies involved in other sectors, in so far as they market or use chemical substances, which meet the definition of a biocidal product and therefore fall under the scope of Regulation (EU) No 528/2012<sup>1</sup> concerning the making available on the market and use of biocidal products (the BPR).

In the context of that Regulation, chemical substances generated at their place of use from various devices, equipment or systems, with a view to exerting a biocidal function are referred to as *in-situ* generated biocidal active substances.

A biocidal function is that of destroying, deterring, rendering harmless or otherwise controlling any organism, which has an unwanted presence or detrimental effect on humans, their activities or the products they use or produce, or on animals or the environment.

This note aims at gathering information on *in-situ* generated biocidal active substances as well as on those chemical substances (i.e. the precursors), which may be used to generate them.

Annex II of this document contains a list of examples of known *in-situ* generated biocidal active substances, of their precursors and methods of generation.

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<sup>1</sup> OJ L 167, 27.6.2012, p. 1–123

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32012R0528:EN:NOT>

Therefore, if your company supplies or uses a chemical substance, device, equipment or system generating a biocidal active substance, the European Commission invites you to provide the following information:

1. If your company is a participant in the review programme, please specify:

- what you are currently supporting under the review programme (i.e. the precursor(s), the active substance(s) or the combination “precursor(s)/active substance(s)”);
- whether you envisage to seek product authorisation for other combinations “precursor(s)/active substance(s)” than the ones currently supported;
- whether you are aware of other precursors for the generation of the active substance you support being made available or used on the market.

2. If your company is *not* a participant in the review programme, please provide details of the product, device, equipment or system, including of the combination “precursor(s)/active substance(s)” involved and of the methods used to generate the active substance(s) in situ, as well as of the area of use.

This information should be sent by email to the European Commission at [ENV-biocides@ec.europa.eu](mailto:ENV-biocides@ec.europa.eu) by 31 March 2014.

A format for the reply is suggested in Annex I, you may how wish to present the information in a different way.

The information collected will be used to decide on how to manage situ generated biocidal active substances in the context of the BPR.

For further information on the matter, we invite you to read the note discussed at the 52<sup>nd</sup> meeting of representatives of Member States Competent Authorities for the implementation of the BPR proposing a *Way forward on the management of in situ generated active substances in the context of the BPR*<sup>2</sup>.

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<sup>2</sup> CA-July13-Doc.5.1.1 - Biocides and in situ available on CIRCABC at <https://circabc.europa.eu/w/browse/6b5673cd-023d-4ce6-95cb-ac0dc4c9eb01>

## Annex I

Suggested format to be used for the reply

Company name:	
Contact person:	
Email:	
Participant in review programme: yes <input type="checkbox"/> no <input type="checkbox"/>	

Name and description of method used to generate the active substance(s) in situ:	
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Active substance(s)			
Name:			
CAS number:		EC number:	
Name:			
CAS number:		EC number:	

Precursor(s)			
Name:			
CAS number:		EC number:	
Name:			
CAS number:		EC number:	

Area of use:	
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Comments:	
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## Annex II

### Examples of known in-situ generated biocidal active substances

#### Active substances generated by deliberate reaction of multiple substances

Sodium chlorite and organic/inorganic acids and/or oxidiser forming chlorine dioxide

- Sodium chlorite and hydrochloric acid forming chlorine dioxide
- Sodium chlorite and lactic acid forming chlorine dioxide
- Sodium chlorite and sodium peroxodisulfate forming chlorine dioxide
- Sodium chlorite and potassium peroxomonosulphate forming chlorine dioxide
- Sodium chlorite, sodium hypochlorite and hydrochloric acid forming chlorine dioxide
- Sodium chlorite and chlorine forming chlorine dioxide

Sodium chlorate, hydrogen peroxide and sulphuric acid forming chlorine dioxide

Generation of hypohalous acids

- Potassium peroxomonosulphate and sodium chloride producing hypochlorous acid
- Potassium peroxomonosulphate and potassium bromide producing hypobromous acid
- Sodium bromide and sodium hypochlorite forming hypobromous acid

Ammonium sulphate and sodium hypochlorite forming monochloramine

Ammonium bromide and sodium hypochlorite generating bromide activated chloramines

Generation of peracids by reaction of a peroxide and a carboxyl compound

- Formic acid and hydrogen peroxide forming performic acid
- TAED and sodium percarbonate forming peracetic acid
- TAED and sodium perborate forming peracetic acid
- TAED and hydrogen peroxide forming peracetic acid
- Acetylcaprolactam and sodium percarbonate forming peracetic acid
- Hydrogen peroxide and acetic acid forming peracetic acid
- Octanoic acid and hydrogen peroxide forming peroxyoctanoic acid

**Machine generated active substances (from basic chemicals or ambient sources)**

Ozone generation from oxygen in the atmosphere

Ozone generation from pure oxygen

Electrolysis of sea water forming hypochlorous acid

Electrolysis of sodium chloride forming hypochlorous acid

Electrolysis of sodium chlorite generating chlorine dioxide

Combustion of butadiene generating CO<sub>2</sub>

Nitrogen generation (concentration) from air to create a de-oxygenated environment

Oxygen scavengers to create a de-oxygenated environment