



**Initial assessments of some substances
recently recommended by ECHA for inclusion in
Annex 14 of EU REACH**

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1. Introduction

The [UK REACH work programme for 2021/22](#) states that during this year we will produce the first recommendation of priority substances to be included in Annex 14 (the Authorisation List). As set out in the document “Approach to recommendation of priority substances for inclusion in [Annex 14 \(list of substances subject to authorisation\) of UK REACH](#)”, for this first recommendation, we intend to focus on substances from the pool of substances recently recommended by the European Chemicals Agency (ECHA), specifically those in its [10th recommendation](#) and the 5 substances from ECHA’s [9th recommendation](#) that the European Commission has notified the World Trade Organisation of their (draft) intention to add to the EU REACH Authorisation List¹. The assessments presented here were performed to identify substances from this pool that HSE could include in its first draft recommendation of substances to include in Annex 14. Substances that have not been prioritised during this year will be reassessed in future prioritisation rounds.

UK REACH entered into force on 31 December 2020. It will take some time for the UK database (Comply with UK REACH-IT) to become fully populated with information on substances registered under UK REACH (in accordance with the transitional arrangements provided for in UK REACH)². In the absence of detailed information on volume and use of substances within GB, HSE will take ECHA data into account for its draft recommendations. This is based on an assumption that the industrial profile for GB is not substantially different to the EU.

For this exercise we provisionally allocated substances to one of three groups:

- Consider recommending for inclusion in Annex 14
- Further information is needed
- No action under UK REACH at this time

The assessments for each substance are outlined in section 2. HSE invites you to provide any GB specific information you may have about these substances to help it refine these assessments for use in future prioritisation work. Information can be submitted via the UK REACH helpdesk at: ukreach.clp@hse.gov.uk.

UK REACH came into force at the end of the transition period and regulates the access of chemicals to the GB market. Under the Northern Ireland Protocol, EU REACH continues to regulate the access of chemicals to the Northern Ireland market. For this reason, HSE is focussing on GB information.

¹ The draft Commission Regulation amending Annex XIV to Regulation (EC) No 1907/2006 can be accessed here: <https://www.epingalert.org/en/#/browse-notifications/details/87868> - accessed August 2021.

² The latest transitional deadline in UK is 6 years + 300 days after the end of the transition period.

2. Assessment outcomes by substance

2.1 Consider recommending for inclusion in Annex 14

2.1.1 Dicyclohexyl phthalate (DCHP)

Substance names: Dicyclohexyl phthalate, 1,2-dicyclohexyl benzene-1,2-dicarboxylate, dicyclohexyl benzene-1,2-dicarboxylate, DCHP

EC number: 201-545-9

CAS number: 84-61-7

SVHC-relevant intrinsic properties

Toxic for reproduction (Article 57(c));
Endocrine disrupting properties (Article 57(f) – human health)

Tonnage and Use

The amount of DCHP manufactured and/or imported into the EU is, according to EU registration data, in the range of ≥ 100 to $< 1,000$ tonnes per year³.

DCHP is mainly used for the formulation and use of organic peroxides where it acts as a phlegmatizer and dispersion agent. It is also used in semiconductors and industrial adhesives with applications in electronics and the automotive sector.

Summary of Assessment

DCHP was recommended by ECHA for inclusion in Annex 14 of the EU REACH regulation in its [10th recommendation](#). In deciding which substances to recommend for inclusion in Annex 14 of the UK REACH regulation, HSE examined [information submitted to ECHA during the commenting period on its draft 10th recommendation](#). Uncertainties identified by HSE include the potential to use DCHP as a substitute for the phthalates already listed on Annex 14 and the volumes of this substance that are manufactured or imported into GB including in mixtures and articles. For regulatory consistency with other phthalates that are already listed on Annex 14, HSE has included DCHP in its first draft recommendation. HSE will consider all information that is submitted during the commenting period on the first draft recommendation of substances for inclusion in Annex 14 of UK REACH when finalising this recommendation.

2.1.2 Disodium octaborate

Substance Names: Disodium octaborate, Boron sodium oxide, Disodium Octaborate Tetrahydrate

³ ECHA's registration information for dicyclohexyl phthalate can be accessed here: <https://echa.europa.eu/registration-dossier/-/registered-dossier/13726/1/2> - accessed June 2021.

EC Number: 234-541-0

CAS Number: 1208-41-2

SVHC-relevant intrinsic properties

Toxic for reproduction (Article 57c)

Tonnage and Use

The amount of disodium octaborate manufactured and/or imported into the EU is according to registration data in the range of $\geq 1,000$ to $< 10,000$ tonnes per year⁴.

Disodium octaborate is used in paints, coatings, cellulose insulation, construction materials and as a micronutrient in fertilisers.

Summary of Assessment

Disodium octaborate was recommended by ECHA for inclusion in Annex 14 of the EU REACH regulation in its [10th recommendation](#). In deciding which substances to recommend for inclusion in Annex 14 of the UK REACH regulation, HSE examined [information submitted to ECHA during the commenting period on its draft 10th recommendation](#). Uncertainties identified by HSE include the potential to use disodium octaborate as a substitute for other borate compounds that ECHA included in its [6th recommendation](#) for inclusion in Annex 14 of the EU REACH Regulation, the volumes of this substance that are manufactured or imported into GB including in mixtures and articles and the use profile for disodium octaborate in GB. Although information presented in the [EU Annex 15 SVHC](#) dossier for disodium octaborate suggests that substitution may be possible for some uses, further information is needed to confirm if substitution is possible for current uses. HSE will consider all information that is submitted during the commenting period on the first draft recommendation of substances for inclusion in Annex 14 of UK REACH when finalising this recommendation.

2.2 Further information needed

2.2.1 D4, D5 and D6

This group includes D4, D5 and D6. These are homologues within the volatile cyclic methylsiloxanes group and are also known as the cyclomethicones.

Substance name: Octamethylcyclotetrasiloxane (D4)

EC number: 209-136-7

⁴ ECHA's registration information for disodium octaborate can be accessed here: <https://echa.europa.eu/registration-dossier/-/registered-dossier/14136> (accessed 10 June 2021)

CAS number	556-67-2
Substance name:	Decamethylcyclopentasiloxane (D5)
EC number:	208-764-9
CAS number:	541-02-6
Substance Name:	Dodecamethylcyclohexasiloxane (D6)
EC Number:	208-762-8
CAS Number:	540-97-6

SVHC-relevant intrinsic properties

D4

Persistent, bioaccumulative and toxic (PBT) (Article 57d);
Very persistent and very bioaccumulative (vPvB) (Article 57e)

D5

Persistent, bioaccumulative and toxic (PBT) (Article 57d);
Very persistent and very bioaccumulative (vPvB) (Article 57e)

D5 meets the criteria of Article 57 (d) as a substance which is persistent, bioaccumulative and toxic when it contains ≥ 0.1 % w/w D4.

D6

Persistent, bioaccumulative and toxic (PBT) (Article 57d);
Very persistent and very bioaccumulative (vPvB) (Article 57e)

D6 meets the criteria of Article 57 (d) as a substance which is persistent, bioaccumulative and toxic when it contains ≥ 0.1 % w/w D4. In addition to its intrinsic properties, it also meets the criteria of Article 57 (e) as a substance which is very persistent and very bioaccumulative (vPvB) when it contains ≥ 0.1 % w/w decamethylcyclopentasiloxane D5 or ≥ 0.1 % w/w octamethylcyclotetrasiloxane D4.

Tonnage and Use

D4, D5 and D6 are manufactured together as a mixture that is then distilled to separate off the individual fractions (due to the thermodynamic equilibrium, the yield decreases as molecular weight increases). One cannot be synthesised without forming the others. More than 90% of the combined production of D4, D5 and D6 in the EU is used to make silicone polymers. These are used in sealants, adhesives, lubricants, medicines, cooking utensils, and thermal and electrical insulation. Small amounts of the monomers can remain in the final product as impurities (and may be re-formed through degradative processes) and could potentially be released into the environment. Impurities can be removed from some polymer products under vacuum.

Of the approximately 18,000 tonnes not used for silicone production, the majority (>90%) goes into production of personal care products (PCPs), especially leave-on

cosmetics. These include deodorants and antiperspirants, and products for hair care and styling, skincare, make-up and make-up removers. D5 in particular is used in PCPs. Industry respondents to the public consultation pointed out that [D4](#), [D5](#) and [D6](#) are contaminants (<1%) of silicone oil used in head lice treatments, and that antifoaming solutions for in vitro diagnostics can contain up to 1% D4 and 1% D5.

D4 is used as a precursor material for the formation of dielectric layers in transistors in advanced semiconductor technologies. It also sees indirect use as silicon polymers in critical applications in the cleanroom for semiconductor manufacturing.

Although it is clear that substitutes have been found for D4 and D5 in wash-off cosmetics, in general, information on alternatives for other applications appears to be lacking. Possible substitutes include short linear siloxanes (e.g. L4, L5) and D7. However, these could prove to be regrettable substitutes, so there is a need to consider risks from the siloxanes as a group. The UK was performing a Substance Evaluation for several linear siloxanes under EU REACH but handed over this work when it exited the EU, and final conclusions have not been published. There is very little information on D7, which is manufactured in the same mixture as D4, D5 and D6 (but present at much lower levels).

It is estimated by ECHA⁵ that in the EU, 100 – 10,000 tonnes per year of D4, 100 – 10,000 tonnes per year of D5 and 10 – 1,000 tonnes per year of D6 are put to uses within the scope of authorisation.

Summary of Assessment

D4, D5 and D6 were included by ECHA in its [10th recommendation](#) for inclusion in Annex 14 of the EU REACH Regulation. D4 and D5 are already subject to [restrictions on use in wash-off personal care products](#) and projects are underway to assess the effectiveness of this restriction at reducing aquatic exposure. [Additional restrictions for D4, D5 and D6](#) are under discussion at the EU level. Given this situation, it seems premature to recommend these cyclic siloxanes for inclusion in Annex 14 now. HSE proposes that further GB specific information on uses should be gathered and a regulatory management options analysis (RMOA) carried out to decide whether targeted restrictions or authorisation or an alternative approach would be the best regulatory framework for this group.

2.2.2 DOTE and the reaction mass of DOTE and MOTE

This group includes the following 2 substances:

Substance name: 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)

EC number: 239-622-4

⁵ Based on information in ECHA's background documents for [D4](#), [D5](#) and [D6](#) developed in the context of its 10th recommendation.

CAS number 15571-58-1

Substance name: Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)

EC number: -

CAS number: -

SVHC-relevant intrinsic properties

Toxic for reproduction (Article 57c)

Tonnage and Use

Based on registration information, the amount of DOTE manufactured and/or imported into the EU is estimated to be in the range $\geq 1,000$ to $< 10,000$ tonnes per year⁶. EU registrants of the reaction mass of DOTE and MOTE have made use of the provision allowing the registration of multi-constituent substances under individual constituents. The registered tonnage for MOTE is in the range $\geq 1,000$ to $< 10,000$ tonnes per year⁷. In the [background document](#) for the reaction mass of DOTE and MOTE, ECHA estimates that the amount of the reaction mass of DOTE and MOTE manufactured and/or imported in the EU is likely to be $> 1,000$ tonnes per year.

DOTE and the reaction mass of DOTE and MOTE function as heat stabilisers during the manufacture of PVC articles. DOTE is also used as a reactive catalyst. There is uncertainty about which uses for these substances do and do not fall within the scope of authorisation.

Summary of Assessment

Further work needs to be done to determine if uses of these substances in packaging for medicinal products and as stabilisers qualify for any of the exemptions from authorisation identified in the REACH legislation. HSE therefore recommends that a RMOA is carried out to gather GB specific information about manufacture, import (including importation of mixtures and articles possibly containing the substance) and use of these substances and articles possibly containing these substances, also about possible alternatives.

2.2.3 Hydrogenated terphenyls

⁶ ECHA's registration information for DOTE can be accessed here: <https://echa.europa.eu/registration-dossier/-/registered-dossier/14171> (accessed 2 August 2021)

⁷ ECHA's registration information for MOTE can be accessed here: <https://echa.europa.eu/registration-dossier/-/registered-dossier/14357> (accessed 2 August 2021)

Substance Names: Terphenyl, hydrogenated, Hydrogenated terphenyl

EC Number: 262-967-7

CAS Number: 61788-32-7

SVHC-relevant intrinsic properties

Very persistent and very bioaccumulative (vPvB) (Article 57e)

Tonnage and Use

Terphenyl, hydrogenated is registered at the EU level with an aggregated tonnage of $\geq 10,000$ to $< 100,000$ tonnes per year⁸.

This substance is mainly used in high-temperature, non-pressurised heat transfer fluids (trade name Therminol™ 66). Up to 4% of the produced tonnage may be used as a plasticiser or in other potentially wide dispersive uses.

Summary of Assessment

It is not clear if authorisation is a good regulatory measure for this substance or if targeted restriction would be more appropriate. Although this substance was included by ECHA in its [10th recommendation](#) for inclusion on Annex 14 of the EU REACH Regulation, Italy is [preparing a restriction](#) on the use of terphenyl, hydrogenated as a substance, in mixtures and articles or parts thereof which is expected to be submitted to ECHA in April 2022. Given this situation, it seems premature to recommend this substance for inclusion in Annex 14 of UK REACH. Instead, it would be beneficial to carry out a RMOA to obtain GB specific information about manufacture and import of terphenyl, hydrogenated, including in articles.

2.2.4 Reaction products of 1,3,4- thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) with $\geq 0.1\%$ w/w 4-heptylphenol, branched and linear (4-HPbl)

Substance Name: Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4- heptylphenol, branched and linear [with $\geq 0.1\%$ w/w 4-heptylphenol, branched and linear]

EC Number: -

CAS Number: -

SVHC-relevant intrinsic properties

Endocrine disrupting properties (Article 57 f – environment)

⁸ ECHA's registration information for terphenyl, hydrogenated can be accessed here: <https://echa.europa.eu/registration-dossier/-/registered-dossier/15941> (accessed 2 August 2021)

Tonnage and Use

A registration has been submitted for this reaction product. It is supplied in the range of ≥ 10 to < 100 tonnes per year⁹.

This substance is used as a corrosion inhibitor in lubricants and greases including products (gear oils) that are supplied to consumers

Summary of Assessment

ECHA indicates in its [background document](#) for this reaction product that SVHC identification is driven by the presence of the impurity 4-heptylphenol, branched and linear (4-HPbl) which has been identified as a SVHC. It is not clear if the substance that ECHA included in its [9th recommendation](#) for inclusion in Annex 14 of the EU REACH Regulation is the main source of emissions of this SVHC impurity or if there are other relevant sources. It is also not clear what levels are present in the environment and if the current analytical methods are suitable to detect this substance. Other uncertainties include the amount of the registered tonnage of RP-HP that falls within the scope of the SVHC composition. It is not known how easy it will be to substitute this SVHC composition with a non-SVHC composition (it is not clear how easy it will be for manufacturers to carry out additional purification) or if suitable alternative corrosion inhibitors are available. It may be useful to initiate an RMOA to look at the environmental sources of 4-heptylphenol and whether less hazardous alternatives to RP-HP are available.

2.3 No action needed under REACH at this time

2.3.1 Tetraethyl lead

Substance name: Tetraethyllead

EC number: 201-075-4

CAS number: 78-00-2

SVHC-relevant intrinsic properties

Toxic for reproduction (Article 57c)

Tonnage and Use

Tetraethyllead is registered in the EU by two companies¹⁰. The aggregated tonnage is 1,000 to 10,000 tonnes per year. Both registrants are expected to be importers based on the statement made by Innospec Ltd, UK that it is the sole global manufacturer of

⁹ ECHA's registration information for this reaction product can be accessed here: <https://echa.europa.eu/registration-dossier/-/registered-dossier/12316> (accessed 2 August 2021)

¹⁰ ECHA's registration information for tetraethyl lead can be accessed here: <https://echa.europa.eu/registration-dossier/-/registered-dossier/23838> (accessed 19 August 2021)

TEL¹¹. In its comments, Innospec Ltd, UK also states that the only use for TEL is as an anti-knock fuel additive and TEL is only supplied in the pre-formulated additive, which is manufactured by Innospec Ltd, UK.

Summary of Assessment

Based on the information submitted to ECHA during the commenting period on its draft 9th recommendation, intensive efforts appear to be underway to identify substitutes for this substance. Additional regulatory pressure is unlikely to speed up this work. For this reason, there seems little to gain by adding this substance to Annex 14 now. To ensure that our regulatory approach is consistent with others globally, it may be appropriate to revisit our regulatory approach to TEL when technical evaluations of potential alternatives for use in aviation fuel are completed. This is expected to happen by the mid-2020's.

2.3.2 Trimellitic anhydride

Substance Names: Trimellitic Anhydride, benzene-1,2,4-tricarboxylic acid 1,2 anhydride

EC Number: 209-008-0

CAS Number: 552-30-7

SVHC-relevant intrinsic properties

Respiratory sensitising properties (Article 57f).

Tonnage and Use

An industry survey performed in response to ECHA's regulatory activities estimates that around 25 000 tonnes per year are supplied to EU28¹².

TMA is used in the manufacture of polyester-based polymers, plasticisers, polyimide resin paints, water-soluble alkyd resins, dipping agents, coatings, wall- and floor coverings, and insulation enamels for cables and wires. In these uses, it functions as a monomer or intermediate which places these uses outside the scope of authorisation.

Summary of Assessment

The main aim for further action identified in the RMOA is to prevent workers becoming sensitised. [ECHA's background document](#) suggests that this substance is used exclusively as an intermediate therefore its uses fall outside the scope of authorisation.

¹¹ This statement was made in [comments submitted to ECHA in response to the 9th draft recommendation](#) of substances for inclusion in Annex 14 of the EU REACH Regulation. ECHA has published all non-confidential comments and information that it received.

¹² This information was provided as an attachment 'TMA Phase IIa – Use mapping update' to [comments submitted to ECHA in response to the 10th draft recommendation](#) of substances for inclusion in Annex 14 of the EU REACH Regulation. ECHA has published all non-confidential comments and information that it received.

In GB the risks are managed under the Control of Substances Hazardous to Health (COSHH) Regulation which requires exposure to be controlled to as low as is reasonably practicable (ALARP). Information obtained by HSE in 2015, indicated no cases of occupational asthma due to TMA had been reported to The Health and Occupation Research Network (THOR) since 2005. For these reasons, there seems no justification to add TMA to Annex 14.

2.3.3 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC 202-027-5) or Michler's base (EC 202-959-2)] (Trityl Alcohol)

Substance name: 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC 202-027-5) or Michler's base (EC 202-959-2)]

EC number: 209-218-2

CAS number: 561-41-1

SVHC-relevant intrinsic properties

Carcinogenic (Article 57a)

Tonnage and Use

Trityl alcohol is registered under the EU REACH Regulation and is manufactured in and/or imported to the EU at ≥10 to <100 tonnes per year¹³.

This substance is a dye. Information obtained by ECHA during preparation of the [Annex XV dossier](#) indicated that in the EU it is used in writing inks.

Summary of Assessment

This substance is only identified as a SVHC where it contains 0.1% or more of the impurities Michler's ketone (MK) or Michler's base (MB). Without these impurities, trityl alcohol does not meet the criteria to be identified as an SVHC. MK and MB are both carcinogenic (Carc 1B), both have been identified as SVHCs in their own right, and both are on the [Candidate List in UK REACH](#). Where these impurities are present at less than 0.1%, trityl alcohol is not classified as a Carc 1B and is ineligible to be identified as a SVHC.

By identifying trityl alcohol (with these impurities at 0.1% or more) as a SVHC, this creates a discrepancy in the regulatory obligations for MK and MB. If these substances are present as an impurity in any other substance than trityl alcohol or present in a mixture, the obligations arising from the SVHC status of MK and MB are triggered where they are present at 0.1% or more. Where MK and MB are present in trityl

¹³ ECHA's registration information for trityl alcohol can be accessed here: <https://echa.europa.eu/registration-dossier/-/registered-dossier/13910> (accessed 20 August 2021)

alcohol, because the SVHC substance is “trityl alcohol containing 0.1% or more MK or MB” obligations are triggered if this grade of trityl alcohol is present in a mixture at 0.1% or more. In this case, levels of the substances MK and MB in the mixture could be as low as 0.0001% which is well below the 0.1% threshold if these were present in a mixture as themselves.

Given this discrepancy, further work is needed to decide if authorisation is a good way to regulate cases where impurities in a substance are the driving concern.

3. Declarations

Within this document we have provided links to the following ECHA documents and information found on ECHA’s website:

ECHA’s disseminated registration data for the following substances:

- [dicyclohexyl phthalate](#);
- [disodium octaborate](#);
- [2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate \(DOTE\)](#);
- [2-ethylhexyl 10-ethyl-4-\[\[2-\[\(2-ethylhexyl\)oxy\]-2-oxoethyl\]thio\]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate \(MOTE\)](#);
- [terphenyl, hydrogenated](#);
- [reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear \[with ≥0.1% w/w 4-heptylphenol, branched and linear\]](#)
- [tetraethyl lead](#)
- [trityl alcohol](#)

The following documents:

- [Recommendation of the European Chemicals Agency of 14 April 2021](#) for the inclusion of substances in Annex XIV to REACH (List of Substances subject to Authorisation).
- [Recommendation of the European Chemicals Agency of 1 October 2019](#) for the inclusion of substances in Annex XIV to REACH (List of Substances subject to Authorisation).
- [Recommendation of the European Chemicals Agency of 1 July 2015](#) for the inclusion of substances in Annex XIV to REACH (List of Substances subject to Authorisation)
- [Comments on ECHA’s Draft 10th Recommendation for Dicyclohexyl phthalate \(DCHP\)](#) (EC number: 201-545-9) and references to responses dated 14 April 2021
- [Annex XV report: PROPOSAL FOR IDENTIFICATION OF A SUBSTANCE OF VERY HIGH CONCERN ON THE BASIS OF THE CRITERIA SET OUT IN REACH ARTICLE 57. Disodium octaborate.](#) Submitted by the Swedish Chemicals Agency, 22 February 2018.
- [Comments on ECHA’s Draft 10th Recommendation for Disodium octaborate](#) (EC number: 234-541-0) and references to responses dated 14 April 2021
- [Comments on ECHA’s Draft 10th Recommendation for Octamethylcyclotetrasiloxane \(D4\)](#) (EC number: 209-136-7) and references to

responses

- [Background document for octamethylcyclotetrasiloxane \(D4\)](#). Document developed in the context of ECHA's tenth recommendation for the inclusion of substances in Annex XIV dated 14 April 2021.
- [Comments on ECHA's Draft 10th Recommendation for Decamethylcyclopentasiloxane \(D5\)](#) (EC number: 208-764-9) and references to responses
- [Background document for decamethylcyclopentasiloxane \(D5\)](#). Document developed in the context of ECHA's tenth recommendation for the inclusion of substances in Annex XIV dated 14 April 2021.
- [Comments on ECHA's Draft 10th Recommendation for Dodecamethylcyclohexasiloxane \(D6\)](#) (EC number: 208-762-8) and references to responses
- [Background document for dodecamethylcyclohexasiloxane \(D6\)](#). Document developed in the context of ECHA's tenth recommendation for the inclusion of substances in Annex XIV dated 14 April 2021.
- Background document for reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate ([reaction mass of DOTE and MOTE](#)). Document developed in the context of ECHA's ninth recommendation for the inclusion of substances in Annex XIV dated 1 October 2019
- [Background document for reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear \(RP-HP\)](#) [with $\geq 0.1\%$ w/w 4-heptylphenol, branched and linear¹]. Document developed in the context of ECHA's ninth recommendation for the inclusion of substances in Annex XIV dated 1 October 2019.
- [Comments on ECHA's Draft 9th Recommendation for Tetraethyllead](#) (EC number: 201-075-4) and references to responses
- [Background document for benzene-1,2,4-tricarboxylic acid 1,2-anhydride \(trimellitic anhydride; TMA\)](#). Document developed in the context of ECHA's tenth recommendation for the inclusion of substances in Annex XIV dated 14 April 2021.
- [Comments on ECHA's Draft 10th Recommendation for Benzene-1,2,4-tricarboxylic acid 1,2-anhydride](#) (trimellitic anhydride; TMA) (EC number: 209-008-0) and references to responses.
- [Annex XV dossier](#) PROPOSAL FOR IDENTIFICATION OF A SUBSTANCE AS A CMR 1A OR 1B, PBT, vPvB OR A SUBSTANCE OF AN EQUIVALENT LEVEL OF CONCERN 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol where it contains Michler's ketone (EC Number: 202-027-5) or/and Michler's base (EC Number: 202-959-2) $\geq 0.1\%$ (wt/wt). Submitted by ECHA, 27 February 2012.

The following web pages:

- Substances restricted under REACH: [Octamethylcyclotetrasiloxane \(D4\)](#); [Decamethylcyclopentasiloxane \(D5\)](#).
- Registry of restriction intentions until outcome: [Octamethylcyclotetrasiloxane \(D4\)](#); [Decamethylcyclopentasiloxane \(D5\)](#); [dodecamethylcyclohexasiloxane \(D6\)](#).
- Registry of restriction intentions until outcome: [Terphenyl, hydrogenated](#)

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