

REACH Substances

Certain requirements &
Substitution programmes

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AIRBUS



Message from Airbus Top Management

At Airbus, we strongly believe that a successful business is a responsible business. Today, sustainability is at the heart of our purpose and guides us in the journey towards clean aerospace, to respect human rights and foster inclusion, to build our business on the foundation of safety and quality and to exemplify business integrity. Suppliers are key contributors to the global sustainability journey.

The decisions we make today should contribute to a healthier environment and stronger communities now and in the future.

Substituting or limiting the use of regulated substances and the safe use of products across their life-cycles depends on sound substances management and timely obsolescence planning, accounting for upcoming (as well as current) regulation.

Therefore, ongoing cooperation between Airbus and its suppliers is key to successful substances management.

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Chief Procurement Officer

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AIRBUS

Introduction

The aim of this document is to highlight the importance of substances management throughout the supply chain.

It also informs Airbus' suppliers of potential substitution plans, being developed for designs using materials/processes qualified by Airbus (for technical performance requirements).

Maintaining ongoing dialogue between Airbus and its suppliers is key to managing legal/regulatory requirements, prohibitions and restrictions concerning: (i) the use of regulated substances in suppliers' product manufacturing; and (ii) the presence of regulated substances in products supplied to Airbus.

Understanding product-composition is key for product-compliance and substances management of supplier's product across its life-cycle, birth to grave (including waste treatment).

In this document each reference to "Airbus" shall mean, together, Airbus Commercial Aircraft, Airbus Helicopters and Airbus Defence & Space.

Introduction

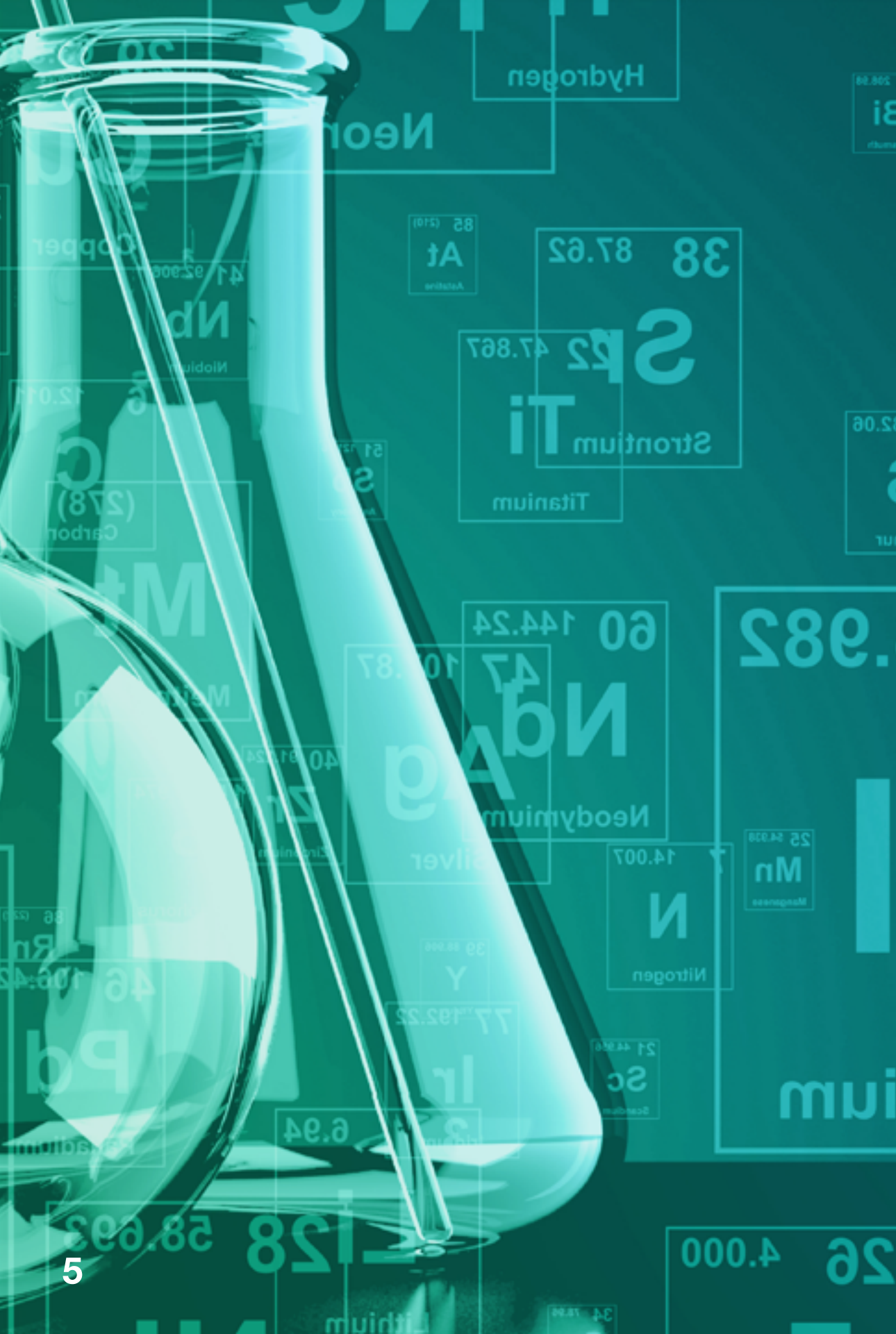
This pack mainly focuses on some aspects of the European (EU) REACH regulation (EC no. 1907/2006). However, suppliers must ensure their own compliance and the compliance of their supplies (products and services) with all applicable laws and regulations.

Some laws/regulations - such as, but not limited to EU REACH, the TSCA Regulation (USA), the CEPA (Canada), the MEE Order 12 (China), 'UK REACH' (since BREXIT) - restrict or prohibit the use of some chemicals/substances or authorise their use only for a limited period and under certain conditions (e.g., use permitted only where certain measures for workplace safety and protection of the environment are in place).

Other regulatory measures affecting, e.g., import, export, other transfer or placing on the market may also exist, such as (but not limited to) those under: EU REACH, the (international) Stockholm Convention, the EU POP (Persistent Organic Pollutants) regulation and the EU F-GHG regulation.

Substances laws and regulations:

- › **govern industries** at international, regional and/or national levels;
- › **constantly evolve**, aiming at enhancing protection of human health and the environment;
- › **set out requirements** such as need for communication of information along the supply chain for substances-management across the product life-cycle (including end-of-life/waste management);
- › **include protection measures** for work-place safety, public health and/or the environment.



Introduction

Chapters

Chapter 1 - REACH regulation

The aim of this chapter is to focus on certain principles of the EU REACH regulation.

Chapter 2 - Cooperation along the supply chain

The aim of this chapter is to remind suppliers of certain REACH requirements applicable to them and/or their supplies, whether they are products for new or existing Airbus programmes or products used in the provision of services.

Chapter 3 - REACH authorisation

The aim of this chapter is to remind suppliers of certain requirements applicable to suppliers in respect of the REACH authorisation process for Chrome VI and OPEO/NPEO substances.

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The aim of this chapter is to remind suppliers of the REACH restriction process, which is increasingly used by the authorities to regulate substances.

Chapter 5 - Substitution of REACH-regulated substances

The aim of this chapter is to provide suppliers with an overview of some current REACH-regulated-substance substitution projects and their maturity level.

Chapter 1

REACH regulation

The aim of this chapter is to focus on certain principles of the EU REACH regulation

Contents



REACH requires the management of chemicals/substances through its processes of Identification, Evaluation, Notification, Authorisation/Ban, Restriction, Communication.

Complying with REACH regulation remains an important requirement for the entire aeronautic and defence industry.

REACH regulation



Registration
Evaluation
Authorisation and
restriction of
Chemicals

What is REACH?

EU REACH (the Registration, Evaluation, Authorization and Restriction of Chemicals) is a European regulation (managed by the European Chemicals Agency (ECHA) based in Helsinki, Finland) which came into force on the 1st June 2007. Read more on [ECHA website](#).

EU REACH applies in respect of products within the EU/EEA and those entering/being imported into the EU/EEA.

Its purpose is threefold:

- › to ensure a high level of protection of human health and the environment from risks that can be induced by the use of chemicals;
- › to promote alternative test methods;
- › to support the free circulation of substances on the internal market.

The main principle of this regulation is “no data, no market”, meaning that all substances that are not registered, exempt or authorised by ECHA are prohibited according to a specific timeline.

REACH regulation

What are the REACH lists of regulated substances?

REACH lists of regulated substances include:

Candidate List

SVHCs list
(Substances
of Very High
Concern)

List of substances identified with a view to being included in REACH Annex XIV and determined by criteria of volume, widespread uses and nature of their properties, including the level of concern that they pose.

Annex XIV

Authorisation list

List of substances that cannot be used after a pre-defined date called the “sunset date” unless authorisation for each specific use is granted by the European Commission with potential conditions of use.

Annex XVII

Restrictions List

List of Restrictions concerning substances (on their own, in mixtures or in articles) for which manufacture, placing on the market (including import) and use is limited or banned in accordance with REACH. Thresholds can apply and can lead to the restriction/ ban of uses and import into the EU/ EEA of articles containing them.

- › As a consequence the use (where not prohibited) of **SVHCs, Annex XIV and Annex XVII substances** shall be avoided (when applicable & technically feasible) for any product delivered by suppliers to Airbus and sufficient information shall be provided to Airbus to justify any use of them.
- › Suppliers must implement **their own plan for management of regulated substances** to comply with requirements applicable to them, their products and services/supplies (within their operating countries and markets) and ensure continuity of supply.
- › Where a new material or process requires Airbus qualification (for technical performance requirements), **suppliers using such material or process shall engage in an early dialogue with Airbus** to develop an appropriate action plan and mitigate any potential qualification or regulatory concerns or bottlenecks.
- › **It is the supplier’s responsibility to engage with its own suppliers** and require them to engage with their upstream suppliers to ascertain whether viable alternatives within the respective supply chains will be deployed by the relevant REACH sunset (ban) date(s) and, if not, whether requisite REACH authorisation(s) will be in place by such date(s), to enable continuity of supply.

Chapter 2

Contents

Cooperation along the supply chain

The aim of this chapter is to remind suppliers of certain REACH requirements applicable to them and/or their supplies, whether they are products for new or existing Airbus programmes or products used in the provision of services

Cooperation along the supply chain

Cooperation along the supply chain is key to managing and satisfying the various requirements under laws/regulations that are applicable to substances and products containing them across the product life-cycle.

Suppliers must take all steps needed for sound management of regulated substances in order to ensure compliance and continuity of supply, including supplier's provision of information concerning substances contained in and/or used in the manufacture of their products.

› Knowing the composition of products supplied to Airbus is a critical element for satisfying obligations under applicable laws/regulations for substances management across the product life-cycle (birth to grave, including disposal/waste management).

Information on composition of products supplied to Airbus needs to be provided (across the product life-cycle) to authorities/regulators and recipients of Airbus products. e.g.:

- › need for authorisations, licences, permits, notifications, registrations;
- › in identifying whether bans/restrictions (e.g., on import, export, receipt, transfer) of the product may apply; and

› need for provision of information to enable environment, health & safety (EHS) protection measures to be put in place along the product life-cycle (including for workplace safety and waste treatment).

› Knowing the substances used in processes to manufacture products supplied to Airbus is key to continuity.

If such information is not received along the supply-chain in a timely manner, this may give rise to disruption, as suitable alternatives may not be found and qualified in time for any ban/restriction date.

For **designs using materials/processes qualified by Airbus**, Airbus and suppliers work in cooperation in searching for viable (e.g. feasible and sustainable) alternative(s) to current and future regulatory constraints.

For **designs not using materials/processes qualified by Airbus**, suppliers still need to identify and prepare in advance for upcoming changes to laws/regulations. Suppliers must propose to Airbus, in a timely manner, viable alternative(s) for substitution and ensure qualification and deployment of the supplier's alternative product before any ban/restriction date, once a viable substitute for the relevant substance is found.

Cooperation along the supply chain

Supply chain compliance and potential obsolescence linked to substances

In the current context of regulatory pressure and evolution of stringent regulations, attention is needed to products which could give rise to compliance or obsolescence concerns, in the mid- and long-term, that may also disrupt supply.

Regulatory timelines for ban/restriction of substances are often **too short** for the research, development and qualification of alternatives needed to meet stringent technical performance/airworthiness requirements for aerospace products.

As a consequence, **all actors in Airbus' supply chains** (including Airbus' suppliers and their respective supply-chains) need to:

- › **identify and prepare, in advance, for any potential obsolescence** and eradicate upcoming substances of concern. These may trigger technical challenges so early identification and preparation is key;
- › **implement a strong and proactive substances management programme** (including substitution information, obsolescence and compliance);

- › **manage** the **obsolescence** risks and substances used and/or contained in products;
- › **obtain and provide in a timely manner accurate data** on the regulated substances that they use and that are contained in their products;
- › **engage in very early dialogue with Airbus** when a substance is subject to ban/restriction;
- › **act proactively to secure** sustainable products, processes and operations;
- › **comply with laws/regulation**, including through e.g. authorisation and/or restriction processes;
- › **implement practical solutions** to track and declare data in respect of an increasing number of regulated substances, required for substances management all along product life-cycles;
- › **prioritise digital solutions**, provide comprehensive, more manageable traceability of substances used and contained in their products;
- › **improve traceability** for substances management.

Implementation requirements

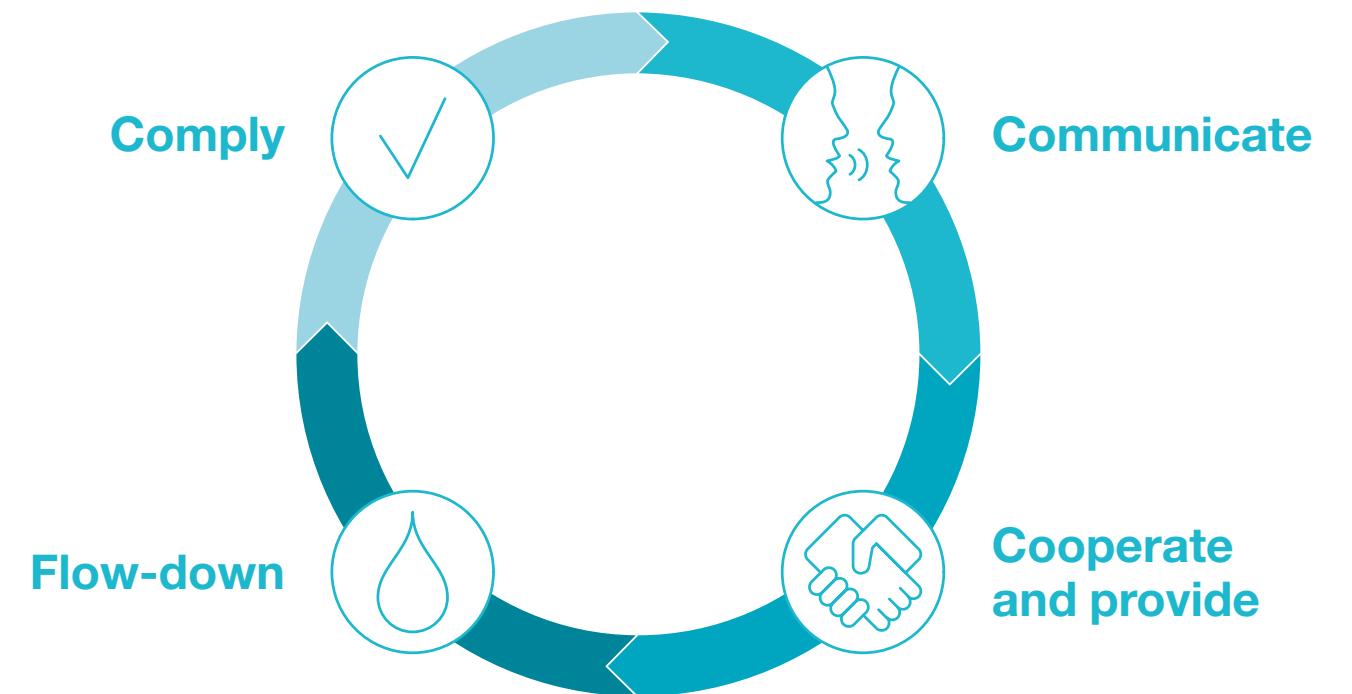
Suppliers must implement their own plan for management of substances of concern to comply with requirements applicable to them, their products and services/supplies, within their operating countries and markets and ensure continuity of supply.

Implementation requirements for suppliers - new and existing programmes:

For any product delivered by suppliers to Airbus for use in **new programmes** or new designs, the use of SVHC (where not prohibited) should be avoided to reduce health, safety and environment impacts of their activities and products and to prevent burdensome and costly change processes in subsequently substituting the SVHC with a suitable alternative.

In case substitution is not possible because suitable alternatives are not available, continuous use of SVHC must be discussed in advance with Airbus Engineering dept. and be in compliance with applicable laws/regulations and conditions of use (including EHS (environment, health & safety) protection measures required). The supplier should work on developing and proposing to Airbus viable alternatives.

For any product delivered by suppliers to Airbus for **existing programmes**, SVHCs shall be replaced without delay and, in any event, no later than date(s) for elimination.



Information duty of suppliers - substitution/elimination of substances

- › **For suppliers delivering**, for example, equipment, systems, standard parts, specified items and, more generally, items NOT designed using materials/processes qualified by Airbus (Airbus drawing system) in case of any proposed process/design modification or new process/design:
 - › Airbus must receive from suppliers, in the early stages of the supplier's contemplating a modification, new process or design, preliminary information on it for future planning purposes.
 - › This must be followed by supplier's provision to Airbus of the supplier's overall substitution plan and related impact assessment (in advance of any relevant change or other process applicable to supplier), to give Airbus greater visibility of the flow of changes or other matters as these may need to be managed.
 - › The supplier's substitution plan shall demonstrate the planned elimination of the substance(s) of concern from the supplier's equipment (including components and any consumables used), products and/or manufacturing process in ample time to enable deployment of suitable alternative(s) before any ban/sunset date.
- › To facilitate continuity of supply, any relevant process applicable between the supplier and Airbus for informing or notifying Airbus (e.g., change/equipment evolution notification) **shall be commenced by the supplier without delay** so that the proposal can be considered by Airbus as soon as possible in the process. As part of this process the supplier must demonstrate that the proposed modified/new equipment (including components and any consumables used), products and/or manufacturing process provides at least equivalent technical performance to that of the equipment (including components and any consumables used), products and/or manufacturing process that it is modifying/replacing.
- › **In the case of any item in production or any new design** (including any re-design, modification of existing design, any previous new design, previous re-design and/or previous modification of any design that has entered production), **the supplier shall provide to Airbus a substitution plan satisfactory to Airbus for the supplier's phase-out of substances.**



Product composition information

under REACH articles 31 & 33 as part of the duty of suppliers

› **REACH Article 33 Duty of suppliers to communicate information in respect of substances contained in articles:**

According to Article 33 (1) REACH, you, being a supplier of an article, shall provide Airbus, as a recipient of that article, with sufficient information to allow its safe use where the article contains a substance of very high concern (SVHCs) (listed on the REACH candidate list published by the European Chemicals Agency (ECHA) in a concentration above 0.1 % weight by weight (w/w). Read more on [ECHA website](#).

› **REACH Article 31 Requirements for Safety Data Sheets including duty of suppliers to provide information in respect of substances/ substances contained in mixtures:**

According to article 31(1) of REACH, you, being a supplier of a substance or mixture, shall provide Airbus, as a recipient of that substance or mixture, with an up-to-date Safety Data Sheet (SDS) in accordance with REACH.

Article 31 of REACH and its associated Annex II explain in which cases SDS must be provided and detail information to be compiled in the SDS.

In some specific cases (Articles 14 and 37 of REACH), a Chemical Safety Report (CSR) may be required, including exposure scenario, for example in case of authorisation. Read more on [ECHA website](#).

Chapter 3

REACH authorisation

The aim of this chapter is to remind suppliers of certain requirements applicable to them in respect of the REACH authorisation process for Chrome VI and OPEO/NPEO substances.

- › Airbus policy for sustainable supply continues to be the substitution of REACH-regulated substances
- › However, an application may need to be made under REACH requesting authorisation to continue certain uses beyond their Review Period if viable alternatives to such uses are not available for deployment by then.

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REACH authorisation

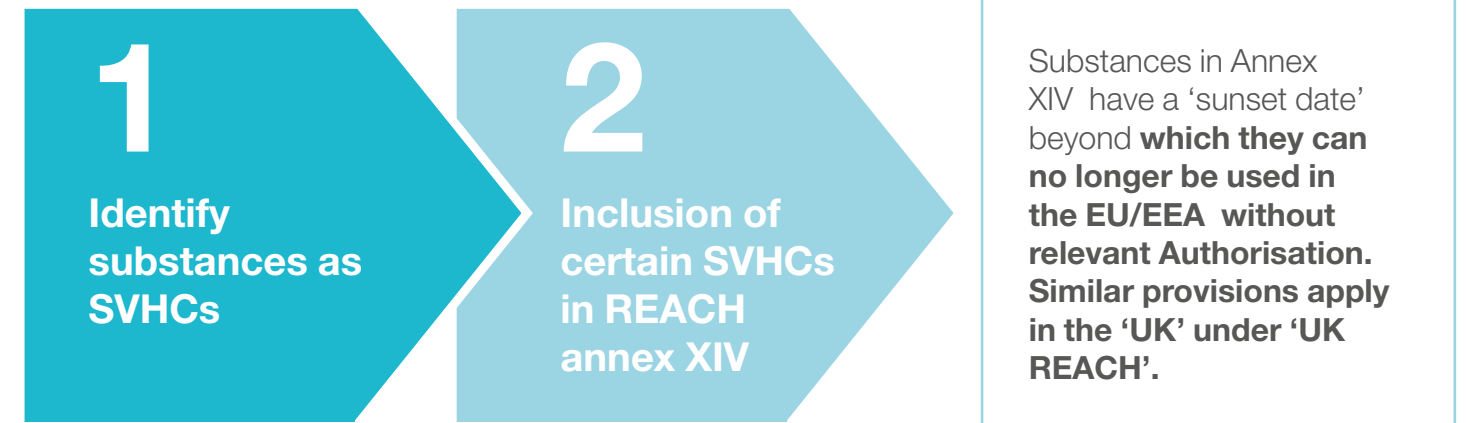
Use of certain REACH regulated substances: substances included in Annex XIV

The EC REACH regulation 1907/2006 regulates the use of various substances of very high concern and products containing them.

The Application for Authorisation (AfA) follows the upstream principle. The authorisation application setup may be done within a consortium regrouping the substance/chemical manufacturers and downstream users.

The chemical formulator/supplier is then the applicant submitting the authorisation application to European authorities in respect of all downstream uses identified by downstream users in the specific supply chain.

- › Airbus prefers substitution (rather than authorisation) of REACH regulated substances
- › Failure of suppliers to comply, secure the authorisation process when needed and require appropriate compliance of their respective supply chains can give rise to supply chain disruption.



Annex XIV substances may only be used after their respective sunset date(s), in the following circumstances:

- a) when an application for authorisation has been submitted by the relevant deadline, in accordance with REACH requirements and the European Commission has not yet made a decision on whether or not to grant authorisation, provided that use is in accordance with the conditions set out in the CSR (Chemical Safety Report) in the AfA (Application for Authorisation), or
- b) the specific REACH authorisation has been granted for each specific use in a specific supply chain AND the conditions (e.g., workplace safety and environment conditions) for benefitting from the Authorisation are met.

'UK REACH'

Companies in Great Britain will need to comply with 'UK REACH' (including its Authorisation requirements) to continue to use substances listed in REACH Annex XIV. This requires action by those companies, including with the UK HSE (Health & Safety Executive). The action required depends on the situation of the company at the end of the Brexit transition period on 31 December 2020. Additional information is available on www.hse.gov.uk

For the position applicable to companies in Northern Ireland, please see, for example, the Northern Ireland (NI) Protocol.

REACH authorisation

Use of certain REACH-regulated chemicals

As Downstream User (DU) under EU REACH and/or UK REACH, once the EU REACH and/or UK REACH authorisation is granted, suppliers have to comply with relevant EU/UK REACH authorisation requirements including, but not limited to, the following (in respect of EU REACH):

- 01** **Notify to ECHA** your use(s) of substances **within 3 months** of the first supply and any additional requirements set out in the relevant Authorisation, in accordance with Article 66, REACH.
- 02** **Comply with the conditions** of the relevant Authorisation (including workplace safety and environmental requirements), **included in extended SDS (eSDS)**, provided by your upstream supplier
- 03** **When required**, report to ECHA on **your monitoring programmes** implemented for workplace safety and environmental exposure, in accordance with the relevant Authorisation (including its timelines)



Example of additional notification requirements for Chromates: explanation of the **key functionalities of the chromates(*)** which are necessary for the specific use that is being made of them.



Content of eSDS includes, e.g.,:

- > updated exposure scenarii;
- > the reference number(s) of the authorisation granted by the European Commission.



Example: EHS monitoring programmes (air & waste-water monitoring programme, biomonitoring) to be reported to the ECHA as required under certain REACH Chromate authorisation decisions.

(*) Some documents indicating key functionalities for chromates can be found under :
Read more on [CTAC & CCST website](#) ; Read more on [GCCA website](#)

REACH authorisation for chromates Cr(VI) and Nonylphenol ethoxylate NPE

The European Commission has granted EU REACH authorisation **for certain specific uses in specific supply-chains** of the substances listed in the table below, **subject to authorisation conditions of use** being met. Airbus and each member of the supply-chain must act to ensure that they are operating in compliance with the relevant authorisation. Please refer to the relevant authorisation to see whether each of your uses is included in the authorisation and for the authorisation conditions applicable to such uses.

These authorisations are recognised under UK REACH so that Downstream Users in the UK may benefit from them provided that they have made appropriate notification/application to UK HSE in accordance with UK REACH (e.g., under UK REACH Article 127(H) by 1st March 2021).

AUTHORISATIONS TABLE - authorisation granted for uses in the supply-chain downstream to the authorisation applicant (including uses of Airbus and its relevant upstream supply chain).

YOU MUST CHECK WHETHER YOUR USES ARE INCLUDED IN AN AUTHORISATION AND THAT YOU ARE WORKING IN ACCORDANCE WITH AUTHORISATION CONDITIONS OF USE

Substance Name	EC No.	CAS No.	Sunset Date	Authorisation granted until:	Consortium for various uses
Chromium trioxide Chromic acid Dichromic acid	215-607-8 231-801-5 236-881-5	1333-82-0 7738-94-5 13530-68-2	21/09/2017	21/09/2024	CTAC, GCCA
Sodium dichromate	234-190-3	10588-01-9/7789-12-0	21/09/ 2017	21/09/2024	CCST, Gentrochema BV
Potassium dichromate	231-906-6	7778-50-9	21/09/2017	21/09/2024	CCST, Gentrochema BV
Strontium chromate	232-142-6	7789-06-2	22/01/2019	22/01/2026	CCST, GCCA
Dichromium tris(chromate)	246-356-2	24613-89-6	22/01/ 2019	22/01/2026	CCST
Potassium hydroxyoctaoxidizincatedichromate	234-329-8	11103-86-9	22/01/ 2019	22/01/2026	CCST
Pentazinc chromate octahydroxide	256-418-0	49663-84-5	22/01/ 2019	22/01/2026	CCST
4-Nonylphenol, branched and linear, ethoxylated (NPE)	500-209-1	68412-54-4	04/01/2021	04/01/2025	EEAC

REACH authorisation - OPE AfA process ongoing

REACH application for authorisation (AfA) – Octylphenol ethoxylate OPE

- › Octylphenol ethoxylates (OPEs) (as well as Nonylphenol ethoxylates (NPEs)) are listed in REACH Annex XIV that states this to be due to “equivalent level of concern due to its degradation to a substance with endocrine disrupting properties”.
- › They are constituents in **certain two-part polysulfide sealants** that are critical to the aerospace and defence (AD) industry.
- › **OPE** - The **processing of the AfA** at the European Commission is **ongoing** under EU REACH for uses (as included in the relevant AfA) of the OPE with EC no. 618-541-1 and CAS no. 9036-19-5. The relevant AfA requests a 4-year review period under EU REACH for the OPE uses included in the AfA. **Provided that** conditions of use (including environmental and workplace safety conditions) set out in the relevant AfA are fulfilled, downstream users to the Applicant (including Airbus and its specific upstream supply-chains) are able to continue those uses in the EU after the EU REACH Sunset Date for OPE (4 January 2021) until the European Commission has issued its decision on whether to grant authorisation for those uses - this is because the relevant AfA was submitted by the Applicant before the LAD (Latest Application Date) for OPE under EU REACH*.

› UK HSE has granted UK REACH authorisations for use in the ‘UK’ of OPE & NPE uses included in the relevant AfAs - the UK REACH authorisations do not apply in the EU (under EU REACH), for which a final decision of the European Commission in respect of OPE is awaited, as stated above.

(*) Please refer to ECHA website for conditions in the relevant AfAs: NPE: 0207-02 (Chemetall) , OPE: 0203 -02 (PPG)

Chapter 4

REACH restriction

The aim of this chapter is to remind suppliers of the REACH restriction process, which is increasingly used by the Authorities to regulate substances and provide information on related impacts to be mitigated.

Contents

REACH restriction

Restricting manufacture, placing on the market or use of a substance on its own, in a mixture or in an article

- › The EU REACH restriction process is set in Title VIII of EU REACH.
- › The Restriction process can be started by either the EU Commission or an EU Member State.
- › **The substance considered does not need to be a REACH ‘SVHC’ / REACH candidate list of substances.**

The EU REACH restriction content (EU REACH Annex XVII) varies widely, depends on the substance’s properties of concern to be controlled and can have various impacts on the supply chain, e.g., from a simple restriction of the condition of use to a ban on its manufacture, use, import or other placing on the market of products containing it.

Tolerances for restricted substances can be below the 0.1% w/w or v/v REACH regulatory thresholds.

Suppliers of such restricted substances have to give details of the restriction(s) in the SDS (required for substances/mixtures).

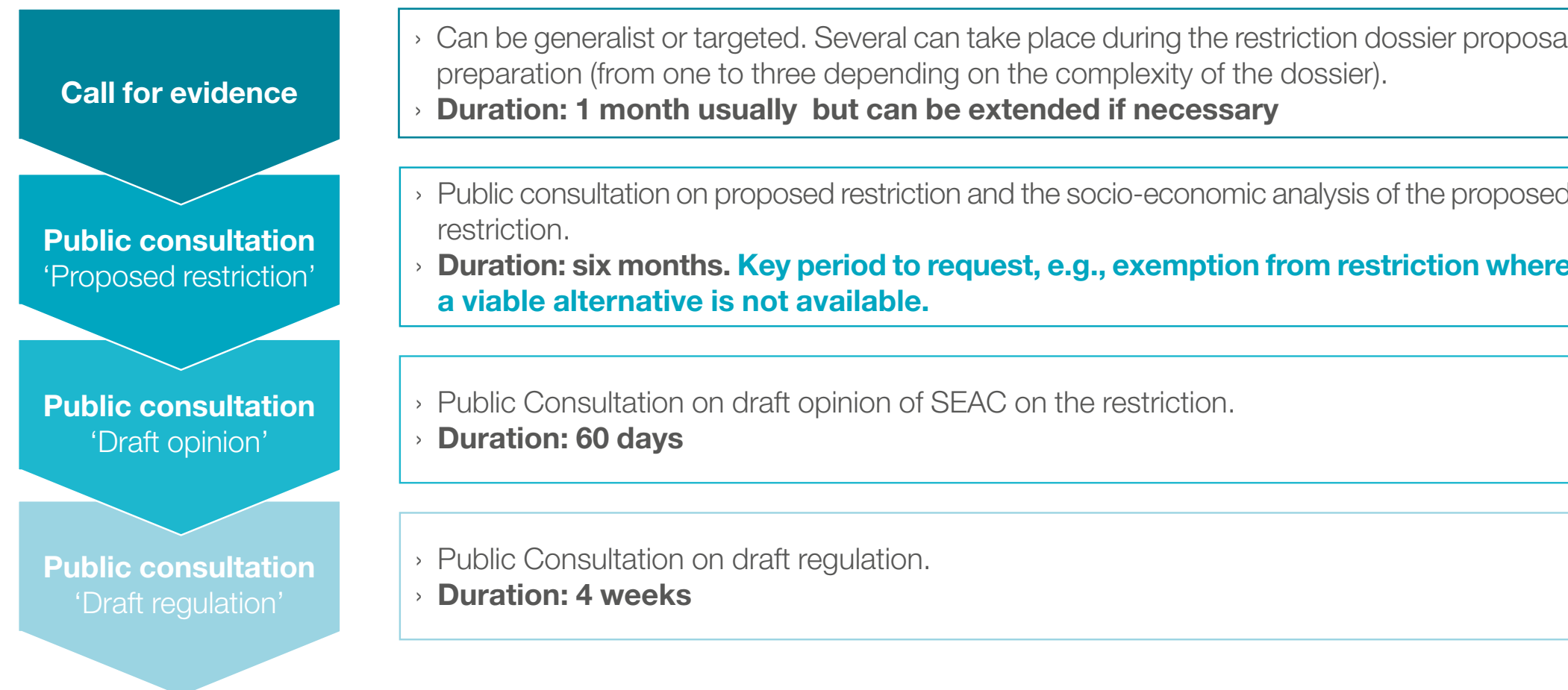
Substances subject to EU REACH authorisation (see substances as listed in Annex XIV, EU REACH) may also be subject to other, supplemental restrictions under Annex XVII of EU REACH.

REACH restriction

Restricting manufacture, placing on the market or use of a substance on its own, in a mixture or in an article

Manufacturers, importers, users, institutions, organisations, the general public or any other third party can participate in several phases of the restriction process:

Failure of suppliers to provide relevant input in the restriction process could lead to concerns not being considered and, depending on the restriction scope, to conditions on use that are more restrictive than authorisation e.g. total ban from use, manufacture AND import.



Chapter 5

Contents

REACH- regulated substances

The aim of this chapter is to provide suppliers with an overview of some current REACH regulated-substance substitution projects and their maturity level.

Substitution of REACH-regulated substances

Airbus is currently involved in projects for substitution of certain REACH regulated substances

Below is a list of some projects that are underway in Airbus to try to identify and develop alternative technologies/products to replace ones containing certain REACH-regulated substances.

Such projects are worked on in cooperation with relevant suppliers involved in the design of the component that uses technology impacted by the relevant regulated substance.

In most substitution projects, one-to-one solutions are required but in some cases multiple solutions are needed to cover the full scope of applications and/or parts of current technologies/products.

Some chromate-free alternative technologies/products have already been qualified for some applications; in particular: hard chrome plating, passivation of steel, anodisation of aluminium and chemical conversion coatings of aluminium.

When alternative technology meets the technical performance requirements specified for such application, the qualified alternative should be used as soon as it is available for deployment.




















Substitution of REACH-regulated substances

For technologies used by Airbus, substitution projects with commonality are often worked on by Airbus commercial aircraft, Airbus Helicopters and Airbus Defence & Space together.
















Below charts present main REACH substitution projects worked on by Airbus:

- Airbus Commercial aircraft Substance Environmental Roadmap
- Airbus Helicopters HazMat Programme
- Airbus Defence & Space VERUSs Programme

Process Application for CHROMIUM TRIOXIDE CAS# 1333-82-0	Usage	Target* for end of Deployment (TRL 9)	Divisions
Replacement of CrVI Chemical Conversion Coating (CCC) in bath application	Surface protection	2024	  
Replacement of CrVI Chemical Conversion Coating (CCC) for local application in production or repair application in service		2024	  
Replacement of chromated Hard Chrome Plating		2024	  
Replacement of chromated passivation of Cadmium plating		2024	  
Replacement of CrVI Sealing after Tartaric Sulfuric Anodizing (TSA)		2024	
Replacement of CrVI Sealing after Tartaric Sulfuric Anodizing (TSA)		2024	
Passivation of Cold Rolled Steel (CRS) steel		2024	
Replacement of chromated Brush plating and Touch up of CAA and SAA		2024	
Replacement of chromated Chemical Conversion Coating (CCC) for local application or repair application on Magnesium		2024	
Replacement of Chromic Acid Anodizing (CAA)		Surface protection and preparation for bonding	2024

(*) for some process application there might be a need for further time/extension beyond the end of the initial authorisation - applications would need to be made to authorities for extension of 'Review Periods' under REACH

Substitution of REACH-regulated substances

















Process Application for OPEO/NPEO (**) - Various CAS#	Usage	Target* for end of Deployment (TRL 9)	Divisions
Replacement of OPE/NPE in Sealants (***)	Sealing of parts	2024	  
Process Application for Dichromium Tris - CAS# 6449-00-9			
Replacement of CrVI Chemical Conversion Coating (CCC) for local application in production or repair application in service	Surface protection	2026	  
Process Application for Strontium Chromate - CAS# 7789-06-2			
Replacement of chromated Basic primer	Paint application	2026	  
Replacement of chromated Bonding Primer	Bonding application	2026	  
Process Application for Pentazinc chromate octahydroxid - CAS# 49663-84-5			
Replacement of chromated Wash Primer	Paint application	2026	  

(*) for some process application there might be a need for further delay beyond the end of the initial authorisation- applications would need to be made to authorities for extension of 'Review Periods' under REACH

(**) list of CAS applicable for sealants from PPG (OPEO) & Chemetall (NPEO): OPEO CAS n° 9036-18-5 & NPEO CAS n°68412-54-4

(***) MC216M (NPEO free) qualified in 2021 to replace MC216

Substitution of REACH-regulated substances

Process Application for Sodium Dichromate - CAS# 10588-01-9	Usage	Target* for end of Deployment (TRL 9)	Divisions
Replacement of chromated passivation of Cadmium plating	Surface protection	2024	  
Replacement of CrVI Sealing after Tartaric Sulfuric Anodizing (TSA)		2024	
Passivation of Cold Rolled Steel (CRS) steel		2024	
Replacement of chromated Sealing of Chromic Acid Anodizing (CAA)		2024	
Replacement of chromated Sealing of Sulfuric Acid Anodizing (SAA)		2024	
Process Application for Potassium hydroxyoctaoxodizincatedichromate - CAS# 11103-86-9	Paint application	2026	  
Replacement of chromated Wash Primer	Surface protection	2024	
Replacement of chromated Sealing of Chromic Acid Anodizing (CAA)		2024	
Replacement of chromated Sealing of Sulfuric Acid Anodizing (SAA)		2024	
Process Application for Potassium Dichromate - CAS# 7778-50-9	Surface protection	2024	
Replacement of chromated Sealing of Chromic Acid Anodizing (CAA)		2024	
Replacement of chromated Chemical Conversion Coating (CCC) in bath application for Magnesium		2024	

(*) for some process application there might be a need for further delay beyond the end of the initial authorisation- applications would need to be made to authorities for extension of 'Review Periods' under REACH

Key Takeaways

Comply

Each supplier **must comply with laws and regulations applicable to it, its products (including their components) and/or services.**
Laws/regulations in connection with environment, health & safety may be applicable where the supplier is based and in, e.g., its operating/supply/delivery markets.

Communicate

Each supplier must communicate information on regulated substances used and/or contained in its supplies (products and services)
› For example, the EU REACH regulation requires the supplier to communicate to the recipient of its products information concerning substances in the EU REACH Candidate List (known as 'Substances of Very High Concern' - 'SVHCs').
Airbus provides a harmonised process for suppliers to communicate information to Airbus (e.g., Airbus MDF (Material Declaration Form)) on substances used by suppliers and/or contained in their products (e.g., 'articles' and/or 'mixtures' (as defined in REACH)) supplied to Airbus.

Cooperate and provide

If granted by authorities/regulators, authorisation periods for continued use of **REACH-regulated substances are time-limited and subject to strict conditions of use** (including workplace safety and environmental protection).
Substitution must remain the priority. The use of any regulated substance where a viable alternative of less concern is qualified by Airbus and available for deployment, must be preferred.
Suppliers' substitution plans for phase-out of substances shall demonstrate to Airbus the planned elimination of the substance(s) of concern from supplier's equipment (including components and any consumables used), products and/or manufacturing process in ample time to enable deployment of suitable alternative(s) before any ban/sunset date.
› **Authorisation under REACH may only be granted where authorities/regulators are satisfied** (on requisite justification) that a viable alternative cannot be implemented by the REACH sunset/ban date.

Flow-down

Suppliers must manage and prepare for the current and evolving regulatory framework, including working with their own suppliers in proactively identifying information needed to be compiled and communicated to ensure sound substances management across the supply-chain, for the life-cycle of their products (including disposal/waste treatment).

Conclusion

Each actor in the Airbus supply-chain must comply with laws and regulations applicable to it, its products and services and must work to mitigate obsolescence and disruption risks.

Within this landscape of increasingly stringent regulation, Airbus and its suppliers must work in cooperation to help drive the development of solutions to substitute the use of regulated substances, across the product life-cycle.

The proactive approach of all suppliers to substances management is needed for a sustainable future.

The current regulatory context and the “European Green Deal” set the frame.

The EU “Chemicals Strategy for Sustainability” is a response to environmental challenges, strengthening EU rules on chemicals, to be addressed across the entire product life-cycle (including disposal/waste management).

Useful links

Mentioned in this pack (the following lists are not exhaustive)

Substances Regulations

- › [EU REACH](#)
- › [UK REACH](#)

Chemicals Agencies

- › [ECHA](#)
- › [UK agency \(HSE\)](#)

Examples of some other laws/ regulations in connection with environment, health & safety:

- › [CEPA \(Canada\)](#)
- › [F-GHG regulations \(EU\)](#)
- › [MEE Order 12 \(China\)](#)
- › [Stockholm Convention](#)
- › [POP regulation \(EU\)](#)
- › [RoHS \(EU\)](#)
- › [TSCA Regulation \(US\)](#)

Contacts

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Glossary

Airbus	Together, Airbus (commercial aircraft) , Airbus Helicopters and Airbus Defence & Space
Article	An object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition. Refer to REACH
Mixture	Mixture or solution composed of two or more substances. Refer to REACH
Review Period	A limited period for which the European Commission has authorised specific use(s) of a specific REACH-regulated substance (in a specific supply chain) beyond the relevant REACH sunset date, subject to conditions of use being met
Substance (for the purposes of EU REACH)	A chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition. (as defined in EU REACH)
Sunset Date	The date in Annex XIV REACH at which use of the relevant substance is prohibited unless an authorisation for its continued use has been granted pursuant to REACH

Acronyms

AfA	Application(s) for Authorisation
AD	Aerospace and Defence industry
CCST	Chromium VI Compounds for Surface Treatment (consortium)
CEPA	Canadian Environmental Protection Act
CTAC	Chromium Trioxide Authorisation Consortium
DU	Downstream User as defined in REACH
EAAC	Ethoxylates in Aerospace Authorisation Consortium
EEA	European Economic Area
ECHA	European Chemicals Agency
eSDS	electronic Safety Data Sheet
EU	European Union
F-GHG	Fluorinated Greenhouse Gases
GB	Great Britain

GCCA	Global Chromates Consortium for Aerospace
HSE	UK Health and Safety Executive
LAD	Latest Application Date under REACH
MDF	Airbus Material Declaration Form
MEE	Ministry of Ecology and Environment (China)
NGO	Non Governmental Organisation
NPE/NPEO	nonylphenol ethoxylates
OPE/OPEO	octylphenol ethoxylates
EU REACH	The EU regulation EC no. 1906/2007 on the Registration, Evaluation, Authorization and Restriction of Chemicals
SDS	Safety Data Sheet required under REACH
SEAC	Socio Economic Analysis Committee under REACH
SVHC	Substance of Very High Concern under REACH

TSCA	Toxic Substances Control Act (USA)
UK	United Kingdom
UK REACH	Under the European Union (Withdrawal) Act 2018, the EU REACH regulation was brought into UK law on 1 January 2021 and is known as UK REACH.
v/v	volume per volume
w/w	weight by weight (see REACH)

This document and its contents:

- should not be considered as providing advice on regulations and laws or their interpretation. The reader should refer to official bodies. E.g. the official websites of ECHA (the European Chemicals Agency created by EU REACH) for information on EU REACH <http://echa.europa.eu/regulations/reach> ; and
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