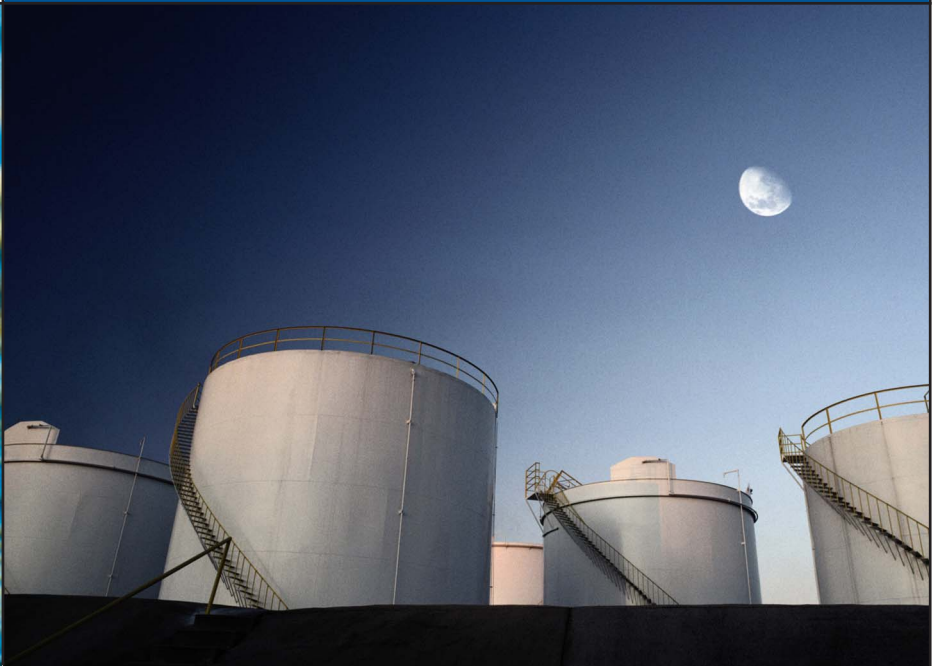
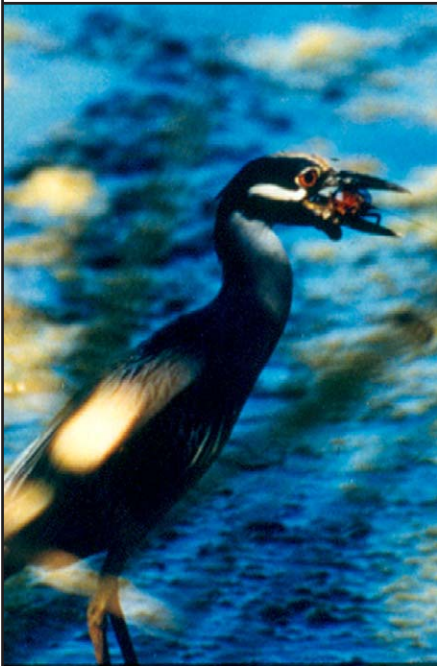


People you trust, delivering results.™

REACH UP

Guidance for Suppliers





Nalco's REACH

Who we are

Nalco's 11,000 employees work with customers at more than 70,000 locations, in 130 countries across 6 continents in industry, government and institutions to solve and prevent water treatment and process related problems. We do this by developing and implementing integrated solutions that improve our customer's products and positively impact their operations through greater asset reliability, decreased total cost of operation, improved operating efficiencies and minimized environmental, health and safety concerns.

Industries we serve include electronics, food and beverages, automotive, aerospace, mining and mineral processing, pulp and paper, chemicals, petroleum, steel, power generation, metalworking, refining, healthcare, personal care, municipal and education. Nalco is organised into three main areas that correspond with the end markets we serve: Energy Services, Paper Services and Industrial and Institutional Services.

Nalco recognises that the recently approved Registration, Evaluation, Authorization and restriction of CHemicals (REACH) regulation will have a significant effect not only on the chemical supply chain in the European Union, but also globally. In this bulletin we share with you our views on REACH and the programs Nalco has put in place to ensure a smooth transition to this new regulatory scheme.



We realise that we cannot secure our supply chain without your assistance and have prepared this guidance to inform you on REACH and our expectations of you, a Nalco supplier.

Introduction

In 2001, the European Union (EU) proposed a wide-ranging and fundamental overhaul of its chemical control legislation. The scheme became known as REACH, an acronym for the Registration, Evaluation, Authorisation and restriction of CHEmicals. Its goals are to:

- Provide a high level of protection to human health and the environment
- Enhance the competitiveness of the EU's chemical industry and encourage innovation

To achieve these goals REACH places a duty on companies that manufacture or import chemicals into the EU to assess the risks arising from their use and to take any steps necessary to manage risks to human health or the environment.

REACH has proven to be one of the most controversial pieces of legislation proposed in recent years. First issued as a White Paper (A Strategy for a Future Chemicals Policy), five years of debate followed. Chief among concerns expressed by industry were the likely cost burden and the marked increase in animal testing necessary to meet REACH requirements. On the 18th of December 2006, the REACH regulation (1907/2006) was finally adopted with an implementation scheduled in steps over the next 11 years.

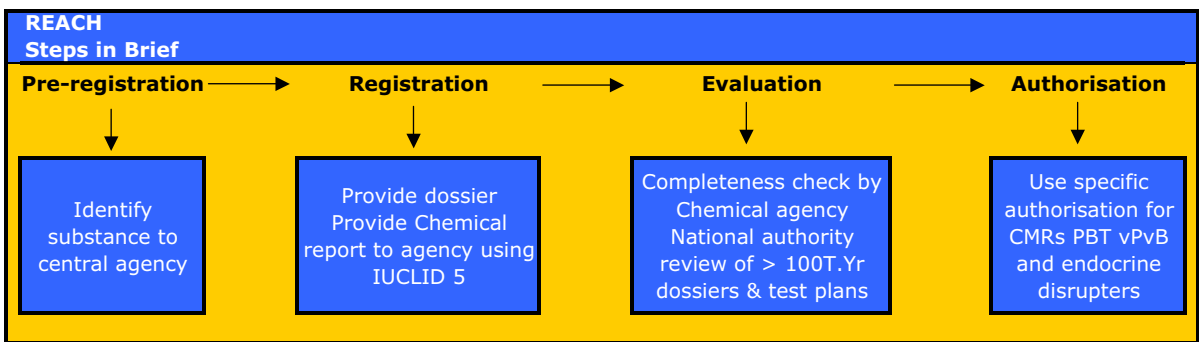
Nalco's REACH

Nalco is committed to and fully supports the goals of REACH and have established a central program office to coordinate our efforts.

What about your position on REACH?

Important steps		
February	2001	White paper
May	2003	Commission draft & internet consultation
September		Submission of revised draft
October		Adoption of the draft
	2004	1st reading by Parliament
	2005	2nd reading by Parliament and Common Position adopted by European council
December	2006	Regulation adopted

The REACH process can be broken down into a number of steps. Each step is summarized in the table below and discussed in detail in the following sections.



Pre-registration

It is estimated that there are some 30,000 chemicals in common use within the EU today. Historically all chemicals “existing” on the EU market in 1981 were listed on the European Inventory of Existing Commercial Chemical Substances, (EINECS) inventory. Generally little information is available on EINECS chemicals. In contrast “new” chemicals introduced post 1981 and listed on the European List of Notified Chemical Substances (ELINCS) tend to be well studied and their effects known. REACH seeks to remove this disparity and increase the amount of information known on all chemicals

In response to animal welfare concerns, REACH requires industry to work together on an unprecedented scale and submit one registration dossier for each substance – the so-called One Substance One Registration (OSOR) approach.

To facilitate this approach and as the first step in the REACH process, all EINECS chemicals currently manufactured and/or imported in quantities of greater than one tonne per year on their own or in mixtures/preparations are to be **pre-registered**. A central chemicals agency based in Helsinki, Finland has been established to receive both pre-registration and also the subsequent registration dossiers. Pre-registration is sched-



Nalco's REACH

In each of our business units plans are in place to pre-register those chemicals that Nalco makes or imports and to work with our suppliers for those that we purchase to ensure a smooth transition to this regime.

What about your position on REACH? June 2008 is fast approaching.

uled to take place **between June and December 2008**. To pre-register a company must provide:

- The identity of each chemical substance
- Its Chemical Abstracts Service, (CAS) and EINECS numbers
- The identify of any related substances that might be used as sources of data for read-across of information
- Identity of the company and its REACH contact

An inventory of pre-registered chemicals referred to as “phase-in” chemicals will be created. This inventory will be used by the agency, to put companies making or importing the same chemical in touch. The EU envisages that a consortium called a substance information exchange forum (SIEF) will form for each chemical and that SIEF members will cooperate throughout the REACH process in supporting the chemical concerned.

Importantly, REACH also allows downstream users of chemicals to pre-register and participate in consortia so that they also can contribute and help to secure their chemical supply chain.

Certain chemicals and chemical uses are exempted from REACH. Generally this is because the chemical is either of low hazard or its use regulated elsewhere. Exemptions include:

- Biocides and plant protection substances
- Waste
- Radioactive materials
- Food additives and flavourings in foodstuffs
- Naturally occurring materials (provided they are not chemical processed)
- Non-isolated intermediates
- Some substances of known low risk, listed in annex IV of REACH
- Certain conditions that might result in the creation of unintentional chemical substances, see annex V of REACH for more information

Nalco's REACH

Nalco will only deal in the near future with companies that demonstrate a robust and proven process for supporting REACH through the pre-registration phase and beyond.

- Pharmaceuticals, medical devices and veterinary products
- Food contact and cosmetic ingredients (exemption only from the human health aspects)
- Minerals, ores and ore concentrates
- Substances manufactured or imported at levels of less than one tonne per year
- Substances on their own, in preparations or in articles that are under customs control or in transit provided they do not undergo any treatment or processing
- Polymers are a special case and have initially been exempted from much of REACH until a practicable cost effective solution can be developed to include them on the basis of sound scientific principles. However the monomers used to make the polymer must be registered if present in quantities of > 2% w/w and made or imported in quantities of more than 1 tonne per year (T.Yr).

Pre-registration with European Chemicals Agency is free.

Registration

REACH requires that all chemicals (approximately 30,000 existing substances and all future new substances) that are manufactured or imported in quantities of more than 1 T.Yr on their own or in

mixtures be **registered** in this next phase. To support each registration, a dossier of basic physio-chemical and (eco) toxicological information must be provided. For each chemical with a manufacture or import volume of greater than 10, 100 and 1,000 tons per year, stepwise additional data is required. The types of information needed are detailed in annexes VII to X. Annexes VII and VIII contain a base set of studies that must be provided for each chemical that passes either the 1 or 10 T.Yr threshold respectively. Annexes IX and X contain more complex and costly studies the results of which may be required if a chemical passes the 100 and 1000 T.Yr or the 1 T.Yr threshold if it is classified as a Carcinogenic, Mutagenic and Reprotoxic (CMR) category 1,2. The regulation allows the grouping of similar substances and the read-across of information between similar substances. Waiving of studies where exposures to man or the environment is likely to be low is also feasible as is the use of literature data. The regulation requires SIEF members to pool all available information, fill or read-across data gaps in the base set and to develop test proposals or waiving arguments for the more complex studies listed in annexes IX and X.



A number of estimates have been made regarding the likely costs of generating the information required for REACH technical dossiers.

To supplement the technical dossier, a detailed “chemical safety assessment” must be performed on the exposures to and uses of the chemical, in order that the actual risk to man and the environment can be quantified through the chemical’s life cycle. The results, along with appropriate precautions, are to be included in a “chemical safety report” (CSR), which is submitted in conjunction with the technical dossier. CSRs are required

Our expectation is that you will support our exposure scenarios within registration dossiers.

only for substances made or imported in quantities of greater than 10 T.Yr. Over the coming years the content of safety data sheets (SDS) will be extended as REACH requires that much of this information be passed to down stream users in the supply chain.

One of the first changes to the SDS will be a switch in the order of chapters 2 and 3 and the introduction of a REACH contact.

Tonnage band	Range (In Euros)
> 1 Ton per year	30,000 ~ 60,000 Euros
> 10 Tonnes per year	250,000 ~ 435,000 Euros
> 100 Tonnes per year	880,000 ~ 1,400,000 Euros
> 1,000 Tonnes per year	1,800,000 ~ 2,500,000 Euros

Whilst these changes were introduced June 1st 2007, companies have until December, 2010 to make these changes to existing SDS. These changes must be made earlier if the SDS is revised due to a change in classification of substance or mixture/preparation. New SDS must comply immediately.

REACH will impose a significant burden on the chemicals industry in future years. Consequently the rules will be phased in over an eleven-year period. Transitional provisions will apply to all EINECS substances already on the market before REACH and which were pre-registered. Such chemicals can continue to be manufactured or imported until the registration deadline is reached. Failure to pre-register means that the substance cannot be manufactured, imported or used in the EU after its registration date. ELINCS chemicals are automatically registered under REACH.

Chemicals of high tonnage or those of high concern, for example carcinogens, mutagens, reproductive toxins or those with persistent and bio-accumulative properties, will be considered first. Later stages will see the registration of chemicals sold at lower tonnages.

An information technology tool known as IUCLID 5 (International Uniform Chemical Information Database) has been developed to

Pre-registration and registration are only open to those companies with offices established within the EU. If your company is based outside this region, then your options are to establish such offices or appoint an 'only representative' to act on your behalf.

Wave	Threshold	By
1	Category 1,2 Carcinogens, mutagens and reproductive toxins supplied at > 1T.Yr Chemicals classified as Very toxic to the environment and long term effects (R50/53) supplied at > 100 T.Yr Chemicals supplied at > 1000 T.Yr	2010
2	Chemicals supplied at > 100 T.Yr	2013
3	Chemicals supplied at > 1 T.Yr	2018

facilitate the exchange of information between SIEF members and regulators.

Evaluation

The agency will perform a completeness check on 5% of all dossiers received for all low tonnage chemicals (1 and 10 T.Yr). All 100 T.Yr, 1000 T.Yr and CMR Cat 1 & 2, Persistent Bio-accumulative and Toxic (PBT) and very Persistent, very Bio-accumulative (vPvB) substance dossiers will automatically be assigned to one member state for "dossier **evaluation**." As part of the evaluation, testing proposals will be examined and timelines for the provision of new data established. Generally the member state selected will be the one where the substance is manufactured or first imported into. National authorities may also choose to call in any substance for a "substance evaluation" if they believe it constitutes a risk by virtue of its structure or total tonnage sold in the EU. Evaluation may conclude that the risks are unacceptable and that the substance and its uses be considered for authorisation and or restriction.

Authorisation & Restriction

The use of substances that cause cancer, infertility in men and women, genetic mutations, birth defects and those which are persistent and

accumulate in our bodies or the environment will be subject to **authorisation** and potentially also **restriction**. There are estimated to be 1,400 "substances of high concern" in use today. Any substance on its own, in a preparation or in an article may be subject to communitywide restriction if its use poses an unacceptable risk to health or the environment.

Once identified as a substance of high concern, those using the chemical will need to apply for authorisation for each use including an analysis of possible substitutes. An authorisation will be granted if the applicant can demonstrate that the risk is adequately controlled by technical or organisational measures. If not then the chemical's use may still receive authorisation but only if the socio-economic benefits outweigh the risk and there are no suitable alternate substances or processes.

Nalco's REACH

Nalco recognises that Authorisation is likely to place a significant burden on our customers. Nalco has a long tradition of innovation and have accordingly put programs in place to look for alternatives for all chemicals whose use we believe will become "Authorised" in time.

Authorization will strongly encourage companies to switch to safer alternatives. In fact all applications for authorisation will need to include an analysis of alternatives and a substitution plan where no suitable alternative exists. In cases where a substance on its own, in a preparation or in article poses an unacceptable risk to health or the environment, **restriction** on the manufacture, sale and use of a substance may be applied communitywide.

REACH UP

- Our expectation of our suppliers -

REACH UP is a Nalco initiative to provide guidance to our suppliers and communicate our strategy in securing our chemical supply chain. As a supplier there are a number of areas for you to address if you are to take advantage of the transitional period of REACH and benefit from the opportunities that REACH will bring. REACH will affect your business and we suggest that you:

- Appoint a lead person to act as a REACH contact. Effective communication is key to ensuring a smooth transition to this regulatory regime
- Commit to the pre-registration of the chemical substance(s) that you manufacture or import in quantities of more than one tonne per year. Also consider whether you will register each substance in due course – **Inform Nalco immediately should you conclude that any substance is uneconomic**
- Ask your suppliers and seek their commitment to pre-register and register the chemical substance(s) concerned
- Ensure that our uses are supported and appropriate exposure scenarios drafted and included in registration dossiers. Expertise in compiling chemical safety assessments will also be required. Be prepared to receive information on use, fate and exposure scenarios. Our plan is to supply this information in 2008
- Consider your position, if based outside the EU. You could be excluded from the REACH process and in consequence the EU Market. Options to consider include:
 - ◆ Establishment of EU legal entities where your customers can place orders. Establishing EU offices will allow you to participate in the REACH process
 - ◆ Appointment of an “only representative” in accordance with article 8, Nalco may be able to assist you
 - ◆ Withdraw from the EU market
- Our preference is for the establishment of EU offices by your company
- Consider your position, if toll manufacturing or blending chemical preparations on Nalco’s behalf. Be prepared to receive information on use, fate and exposure scenarios. Be prepared to pass such information on to your suppliers in turn. Our plan is to supply this information in 2008
- Consider your position, if toll manufacturing chemical substances on Nalco’s behalf. You need to consider how to align with our strategies most importantly in the areas of substance identification and participation in substance SIEF consortia. Our expectations are that;
 - ◆ Your company will pre-register our chemicals. It is Nalco’s intention to also pre-register all our “tolled” chemical substances too
 - ◆ That your company commits to follow Nalco’s lead
 - ◆ Any data provided to you by Nalco remains our property
 - ◆ Nalco’s strategy is based upon the careful consideration of volume increases and what impact this might have in terms of exceeding REACH tonnage thresholds (1, 10, 100, 1,000 tonnes per year). If you make any Nalco chemical for another party you need to consider such volume increases very carefully – our preference is for exclusive manufacture
- Our expectations will be reflected in contract documents and we reserve the right to audit our suppliers to confirm REACH compliance
- Be aware that it is our intention ultimately to source only from suppliers who are REACH capable i.e. who are pro-active, committed and put in place the financial resource to support REACH
- Establish open communication lines with Nalco

Some key information sources

European Chemicals Bureau: <http://ecb.jrc.it/>

European Commission Chemicals page: http://ec.europa.eu/enterprise/chemicals/index_en.htm

European Commission REACH page: http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm

Text of the REACH regulation: http://reach.jrc.it/docs/reach_regulation/reach_corrigenda_june07.pdf

European Chemicals Agency: http://ec.europa.eu/echa/home_en.html

Cefic's ReachCentrum site: <http://www.reachcentrum.org/>

Some key dates

Overview of Key implementation stages			
2007	2008	2009	2010+
<p>1 June REACH enters into force</p> <p>New legal responsibility for the provision of revised format safety data sheets</p> <p>Other legal responsibilities are deferred</p>	<p>1 June Pre-registration begins</p> <p>ELINCS superseded and any New chemicals must be registered under REACH</p> <p>Registration of first tonnage threshold wave begins</p> <p>1 December Pre-registration ends</p>	<p>1 January Agency to publish list of all phase-in chemicals</p> <p>Substance information exchange forums start to form</p> <p>30 November First downstream user communication deadline for phase-in substances</p>	<p>30 November 2010 First registration deadline for phase-in substances</p> <p>1 June 2011 Notification of substances in articles begins</p> <p>1 June 2013 Second registration deadline for phase-in substances</p> <p>1 June 2018 Third registration deadline for phase-in substances</p>

Glossary

CMR Cat 1,2	Substances that cause cancer, infertility in men and women, genetic mutations or birth defects and fall in categories 1 & 2.
Downstream user	May be any industrial user of chemicals whether formulators of preparations or users of chemicals in industrial processes or producers of manufactured articles eg electronic components
EINECS	The European inventory of existing commercial chemical substances contains all substance on the EU market between 1971 and 1981.
ELINCS	European list of Novel Chemical Substances. All new chemicals introduced into the EU post 1981 and registered under Directive 1967/548/EEC
Endocrine disrupter	Substance that can affect the hormone system
IUCLID 5	A central information technology platform, which stands for International Uniform Chemical Information Database version 5
Only representative	A natural or legal person established within the community who is appointed by any person established outside the community who undertakes to fulfil the role of importer under REACH
Phase-in substance	Is a chemical substance listed in EINECS or one manufactured within the community but not placed on the market once in a last 15 year period
PBT	Persistent, bio-accumulative and toxic chemicals
SIEF	Substance information exchange forum. A group of companies working to secure the registration of a substance
vPvB	Very persistent & very bio-accumulative chemicals

To the best of Nalco's knowledge the information presented in this bulletin is correct at the time of publication and represents the views of Nalco. Nalco can accept no liability for the information contained therein Version 2: 18/06/07

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