

REACH

Clariant Masterbatches



Exactly your chemistry.



What Is REACH?

Registration, Evaluation, Authorization and restriction of Chemicals

Regulation (EC) No. 1907/2006 of the European Parliament

REACH has been in force since June 1, 2007, and will be phased in over the next 11 years.

Applicable in 27 Member States (490 million people) and EEA countries.

<http://ec.europa.eu/echa/>

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

What Is REACH?

Objectives:

- Protection of human health and the environment.
- Promotion of non-animal testing.
- Conformity with WTO rules.
- Increased transparency.
- Prevention of a fragmented internal market.
- Enhanced competitiveness and innovation of the EU chemical industry.
- Make industry responsible for safe chemicals.

Protection of human health and environment

What Is REACH?

Why was REACH introduced?

- Public perception that “man-made” chemicals are more hazardous than naturally occurring ones.
- High degree of public concern over risks to health and the environment.
- Perceived general lack of available public information on substances.
- Hence, a perception of limited knowledge about vast majority of chemicals in use (100,000).



What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

The public is asking for more safety

What Is REACH?

Why was REACH introduced?

- Differences between “existing chemicals” and “new chemicals” on information required for placing on the market.
- Desire to change the allocation of responsibilities. Public authorities rather than Manufacturers/Importers were undertaking risk assessments of substances.
- Community concerns regarding infertility issues, increasing allergy numbers, increase in occurrence of some cancers, halogenated compounds found in polar bears’ milk...



What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

REACH reverses the burden of proof

What Is REACH?

Where does REACH apply?

- All substances placed on the EU (plus EEA*) market as such or in preparation.
- Includes chemicals manufactured in, or imported into, EU (plus EEA) Member States territory.
- *Applies to finished articles, e.g., plastic packaging and moldings, only in special cases.*



(* EEA = Norway, Iceland, Lichtenstein, + EU)

Geographical coverage of REACH

What Is REACH?

Implementation time frame:

- Six-month window for “pre-registration” from June 1, 2008, i.e., a statement of intention to register the chemical.
- Chemicals manufactured/imported ≥ 1000 tpa, CMR* (Cat 1 & 2), >1 tpa and substances with R50/53 >100 tpa must be registered by 2010.
- Chemicals manufactured/imported ≥ 100 tpa and <1000 tpa must be registered by 2013.
- Chemicals manufactured/imported ≥ 1 tpa and <100 tpa must be registered by 2018.
- *Note: Volumes are by legal entity.*

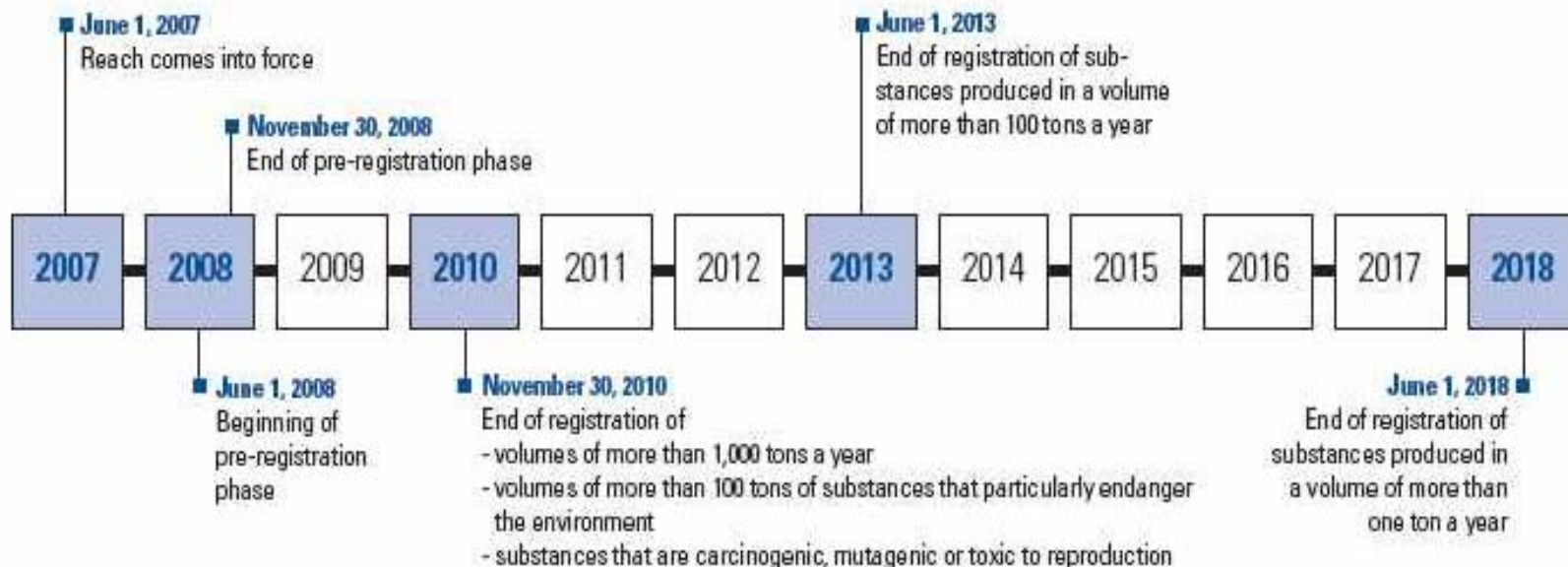
(* CMR = Carcinogenic, Mutagenic, or Reprotoxic)



REACH will be implemented progressively

What Is REACH?

Timeline: Registration of Phase-in Substances for REACH



Note: Non-Phase-in Substances must be registered by June 1, 2008. Otherwise: “no data, no market.”

REACH will be implemented progressively

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

What Is REACH?

The REACH process: (1)

- Each Manufacturer or Importer of chemicals in volumes >1 tpa must submit a registration for those substance to the EU Chemicals Agency.
- Each Manufacturer/Importer is responsible for the registration.
- Each Manufacturer/Importer must submit information on health and environmental hazards associated with the substances and risk management measures for processing, handling, storage, etc.
- Non-EU legal entities can not register substances, except via a competent “only representative” (*REACH, Article 8*).
- REACH is expected to cover 30,000 chemicals.

Registration is the responsibility of each manufacturer/importer

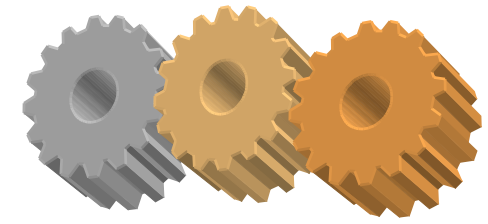
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Downstream Users

Impacts of REACH

What Is Clariant Doing?

What Is REACH?



The REACH process: (2)

The Manufacturer/Importer must provide safety information to “Downstream Users” along the supply chain.

Safety Information

Substances



Preparations, e.g., MB



Articles



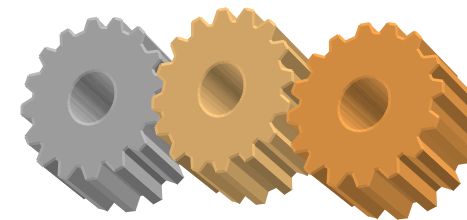
Use Information



The Downstream User informs the M/I about real use of the substances, including exposure data, in order to let the supplier register the substance for an identified use.

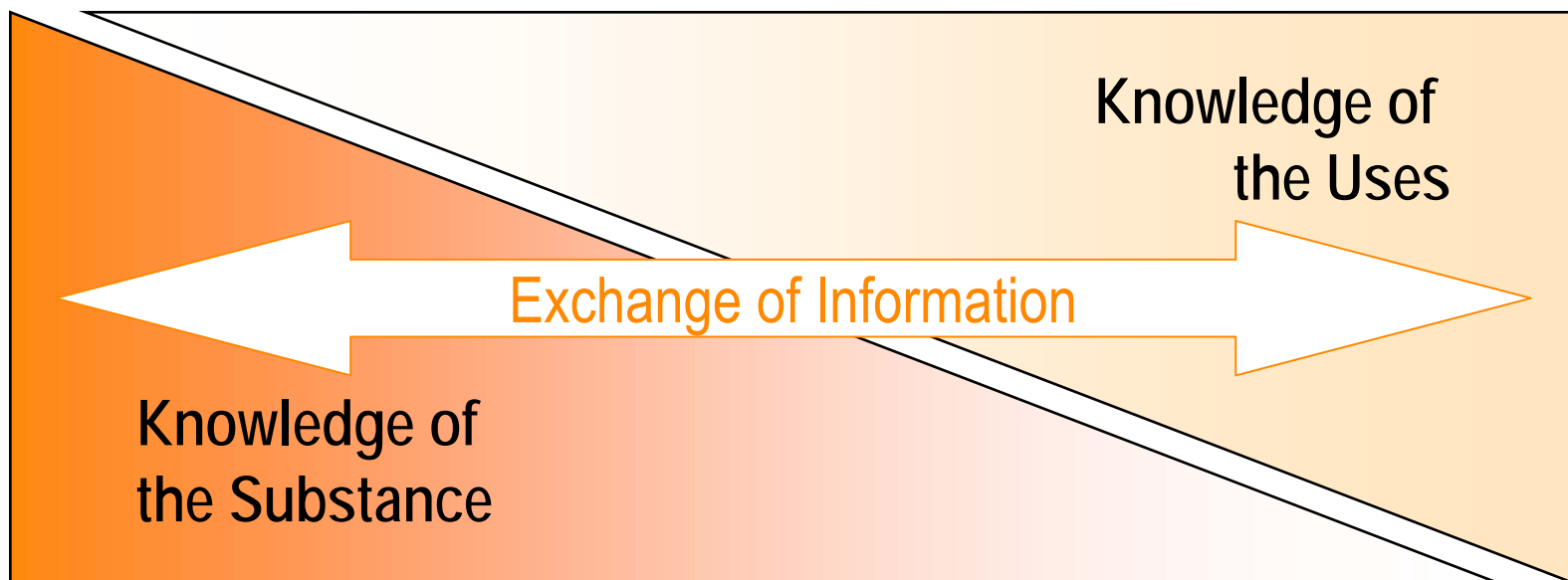
Cooperation is necessary throughout the supply chain

What Is REACH?



The REACH process: (3)

- Knowledge along the supply chain.



Cooperation is necessary throughout the supply chain

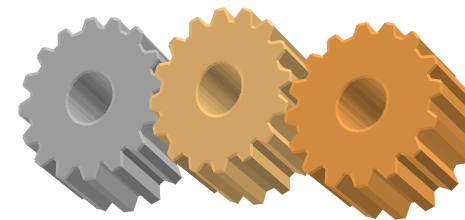
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Downstream Users

Impacts of REACH

What Is Clariant Doing?

What Is REACH?



The REACH process: (4)

- Producer/Importer must evaluate risks related to use of chemical, describe its safe use and submit a report to ECHA.
- EU Chemicals Agency will check completeness and consistency of the reports and may ask for further information or testing.
- ECHA will assign a Member State to check if risks related to intended uses are adequately controlled.
- All substances of very high concern (sVHC) are subject to an authorization procedure: (CMR Cat. 1 + 2, PBTs/vPvBs, endocrine disrupters, etc.).

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?



Exactly your chemistry.

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

Downstream Users

Downstream Users - Definition

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

■ Downstream User (DU):

Any natural or legal person established within the community, other than the Manufacturer or the Importer, who uses a substance, either on its own or in a preparation, in the course of his industrial or professional activities.

The Downstream User

Downstream Users - Requirements

- Downstream user (DU) is committed to cooperating with the supplier to maintain the supply chain.
- DU must identify end uses for products and provide detailed human and environmental exposure data in order to support the Manufacturer/Importer to prepare a CSR (Chemical Safety Report).
- DU supplies Safety Data Sheet, and when required, extended Safety Data Sheet (with exposure scenario) to customers.
- Select competent suppliers – i.e., a properly identified substance use (e.g., MB application) must be included in their CSR.
- Second-level DU (e.g., plastics converter) must identify uses and provide exposure data to his supplier.
- Second-level DU needs to select competent suppliers to ensure that their use (e.g., blow molding, fiber extrusion, etc.) is included in the (extended) SDS, or Safety Data Sheet.

Potential Impact of REACH on Downstream Users

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

- May need to reformulate products → new approval processes with customers.
- Business complexity may be increased greatly.
- In-house competence and resources will be necessary to manage additional workloads.
- Additional product safety and software resources will be needed.

Possible reformulations, new approvals, etc.

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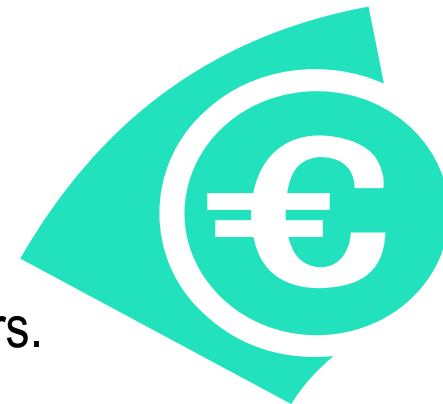
Downstream Users

Impacts of REACH

What Is Clariant Doing?

Possible Impacts of REACH

Possible Impacts of REACH



- Significant costs may impact Manufacturers/Importers.
- Some chemicals may disappear from the market due to costs of testing and registration, or failure to gain authorization.
- Suppliers may rationalize their product ranges.
- Price increase in consumer goods?
- Some manufacturing can move outside the EU – only the finished article will be imported.

Additional costs for the chemical industry in Europe

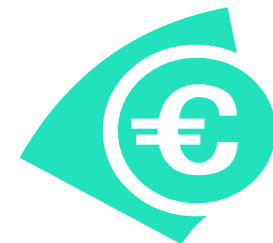
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Downstream Users

Impacts of REACH

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Estimated Testing Costs per Substance*



Volume Band		Costs		
limit		1000 €		
lower	upper	lower	upper	mean
1	10	10	30	20
10	100	100	200	150
100	1000	300	700	500
1000	∞	3000		3000

* Source: VCI; lower/upper difference due to assumed waiving of tests; already existing data result in cost reduction.

Cost burdens to industry

Possible Impacts of REACH

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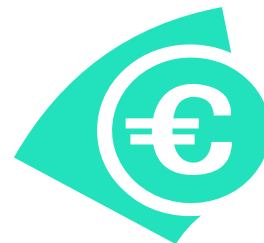
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- Requirements for more Product Safety professionals.
- Increased administrative costs.
- Increased communication and information exchange along the supply chain.
- Increased reliance on competent suppliers.
- Increased control over the effects on health and the environment.

No data – no market!



REACH

Possible Impacts of REACH Marketing Perspective

- Improved control through the whole supply chain of chemicals targeted to the protection of human health and the environment.
- Create the potential to establish “European Quality Brand.”
- Long-term business sustainability.
- Protection against unfair competition (non-registered sources with low control/quality related to safe handling of chemicals, uncontrolled hazardous substances, etc.).
- *REACH provides only limited protection against import of finished articles.*

Business sustainability and quality differentiation

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Downstream Users

Impacts of REACH

What Is Clariant Doing?

REACH – What Is Clariant Doing ?

What Is Clariant Doing?

Clariant's position on REACH

With REACH, the European Chemical Industry has an opportunity to demonstrate its professionalism in product management and handling practices to ensure the safe use of chemicals.

Clariant has supported the general objectives set by the European Commission from the beginning: “Ensure a high level of protection of human health and the environment as well as the free movement of substances, on their own, in preparations and in articles, while enhancing competitiveness and innovation.”

Opportunity to demonstrate and prove chemical professionalism

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

What Is Clariant Doing?

Clariant's preparation for REACH

Clariant was among the first companies to proactively follow the REACH preparation and implementation process.

Clariant REACH organization today comprises a coordinated team of professionals:

- a high-level steering committee with members of the Clariant Main Board.
- an Operating Committee responsible for managing the REACH implementation process.
- a number of functional and cross-functional expert teams.

High-level commitment to REACH implementation

What Is Clariant Doing?

Internal

- Establishment of the REACH Operating Committee and implementation teams – Corporate – Divisional – Local Units.
- Competent people employed to prepare for REACH – new investment.
- Education and training of employees throughout the organization.

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

Defined internal roles

What Is Clariant Doing?

External

- Clariant is a corporate (active) member of CEFIC (European Chemical Industry Council) and ETHIC (European Thermoplastic Independent Compounders) – sector of EuPC (European Plastics Converters).
- CEFIC and EuPC work closely with legislators and assist in preparation of guidelines for the industry.
- Clariant participates in REACH-related projects – RIPs (REACH Implementation Projects) and SPORT (Strategic Partnership On REACH Testing).
- Clariant communicates with stakeholders.

Effective external interfaces

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

REACH – What Is Clariant Doing?

*Masterbatches
Division*

What Is Clariant Doing? Masterbatches Division

We are working to be prepared:

- Masterbatches Division has constituted the MIRT (Masterbatches Implementation REACH Team), with experts from Sourcing Offices, Technical Department, Product Safety Offices, and Production; we are actively and regularly working together to be prepared in time for the coming challenges.
- Some MIRT members are active in Sector Associations REACH Workgroups as ETHIC (European Thermoplastic Independent Compounders) and EuPC (European Plastics Converters).

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

Active and responsible Downstream User

What Is Clariant Doing? Masterbatches Division

- Clariant Masterbatches supports the CEFIC position on communication along the supply chain. A REACH-related product data exchange should start after Technical Guidance Documents (TGDs) are available.
- Clariant Masterbatches, as any Downstream User, cannot guarantee future availability of all substances in the current portfolio, as this is primarily a task and responsibility of Manufacturers/Importers.
- It is our intention to make all efforts needed to make complying with REACH easier for our customers.

REACH implementation and efforts to assist our customers

What Is REACH?

Downstream Users

Impacts of REACH

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What Is Clariant Doing? Masterbatches Division

We are working for our customers:

- Supporting our suppliers in developing the correct Exposure Scenario for the Plastic Industry's uses.
- Being aware of the uses not identified by Manufacturer/Importer.
- Avoiding substances drop-out where feasible.
- Avoiding reformulation and striving to guarantee continuity of our MB products.
- Minimizing troubles and hardships to our customers

Cooperation throughout the supply chain

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

In Clariant Masterbatches Tomorrow Is Already Here

What Is REACH?

Downstream Users

Impacts of REACH

What Is Clariant Doing?

- Today we can already provide you with Masterbatches products in line with current regulations and the underlying basic principles of REACH.
- Our added value permits our customers to fulfill consumers' desire to leave a smaller footprint on the environment.
- Following development of environmental protection needs, Clariant Masterbatches is already responding to the demand for natural non-petroleum-based products with color and performance additives made from natural ingredients and organic materials.
- What is an extra cost today will be a market advantage tomorrow.

We move ahead with REACH

Thank you!



Exactly your chemistry.