

An introduction on substitution of hazardous chemicals in Jotun



Group Product Safety



Decorative Paints



Marine Coatings



Protective Coatings



Powder Coatings



Jotun's values



Loyalty



Care



Respect



Boldness



Reducing
VOC emissions



Reducing
hazardous
materials



Reducing
energy
consumption



Reducing
carbon
footprint



Reducing
waste



Part of Jotun's GreenSteps

Management of hazardous chemicals in Jotun in a global perspective

Why do HSE assessments of chemicals in Jotun?

Use of chemicals may represent a risk to Jotun's

- non-professional and professional customers
- employees (operators and inspectors)
- property
- and to the environment

Jotun A/S therefore needs to identify chemical risks and manage them in a safe and responsible way and as a minimum in accordance with the legislation in the markets Jotun operates.

How are chemicals managed in the product development (R&D)?

Whenever there is new information on existing chemicals (raw materials), or new chemicals are introduced, the technical, economical and HSE aspects of the chemicals shall be assessed.

Since year 1998 Jotun A/S has formalized the identification and internal restrictions (e.g. bans) on hazardous chemicals even if their use is not restricted by legislation

AND made this policy valid to Jotun R&D world wide.

General guideline to R&D

Any use of carcinogens, mutagens or reprotoxins, very potent sensitisers or chemicals that have high acute toxicity (incl. severe corrosives) should be avoided whenever possible.

Neither should there be any use of chemicals that are defined as PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent, very bioaccumulative).

Also; in order to reduce impact of VOC (volatile organic compounds, solvents) products containing as low as possible of these compounds should be developed.

Technical

Customer needs

Best on the market

Economical

Evaluation of contribution margin and market

Evaluation of supplier

Restriction lists on chemicals

The Group Chemical Policy contains two chemical lists and two annexes (position papers):

List 1: Shall not be used

List 2: To be phased out

Annex I and II

The Chemical Policy is revised on a regular basis (annually)

Important principles are

- The substitution principle
- The precautionary principle

Risk Management

Substitution/ Elimination

Technical measures (e.g. ventilation)

Organisatorial (e.g. work procedure)

Personal Protective Equipment



Examples of substitution

AP and APE

DCM and NMP

Toluene

Chromates

Coal tar

Phthalates

D4

Solventborne to waterborne

Biocides (PT6 and PT7)

Titaniumdioxide

Observation: High (regulatory) stress level on the chemical industry – inevitably causing a change from being proactive to being reactive

Working on the most important topics?

Summing up...

- Our Chemical Policy shows proactivity in substituting chemicals
 - Responsible care
 - One step ahead of regulations
 - Trustworthy long-term partner (all stakeholders)
- Future restrictions/ limitations
 - Many challenges ahead
 - Need to defend low risk key chemicals
 - Never-ending story but we'll keep up working on finding less hazardous – and less risky – chemicals!

