Coatings, regulations and the environment reviewed

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Summaries

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European legislation has both quickened and intensified over the last decade. The proliferating adaptations to the Dangerous Substances Directive and the New Solvent Directive are cases in point. In fact, the real effect of legislation which strikes at the very heart of the coatings industry is found in six areas: classification and labelling, market restrictions, the notification of new chemicals, the risk assessment of existing chemicals, the occupational exposure limits and VOC controls.

Industry itself has learned to work within the framework of regulatory requirements. Indeed, a subtle change is making itself felt—a voluntary self-regulatory impulse arising from the grassroots, which, collectively and individually, is beginning to espouse environmental correctness. A compliance culture has been born.

Règlementations et l'environnement passés en revue


L’industrie elle-même a appris à opérer dans le cadre des exigences réglementaires. En effet, un changement subtil se fait sentir, un mouvement volontaire et même autorégulateur à partir de la base qui, collectivement et individuellement, commence à embrasser la bienséance environnementale. Une culture de conformité est née.

Vorschriften, Umwelt und die Coatingsindustrie: ein Überblick


Inzwischen hat sich die Industrie selbst an die gesetzlichen Ansprüche angepasst. Ihre Einstellung hat sich langsam geändert, in dem man schon einen selbstregulierenden Impuls spüren kann.
Introduction: A decade of change

There is much merit in revisiting old hunting grounds. Features stand out sharper, changes appear clearer. Much has happened during the last decade, during which environmental legislation has both quickened and intensified. It was the 1990s in which a new vocabulary was learned, such as EPA, IPC, IPPC, BATNEEC and SHE. CPL during this time turned into CHIP and CIMAH into COMAH.

Also it was the decade in which European legislation became even more paramount, ushering in a state of new Directives, from safety and health (including working conditions) to transport, air pollution and waste. After struggling for a decade, VOC control received European-wide legal sanction. Above all, chemical legislation reached new heights: the 7th Amendment, a Biodidal Products Directive, a new Preparations Directive, the risk assessment of existing substances and newly classified dangerous substances galore. The scope of European legislation is indicated in Table 1.

Chemicals themselves have come under threat, not only from over-enthusiastic regulators, but also from pseudo-scientific evidence, press scares and hearsay. Endocrine disruptors are making the headlines and scare stories prevail. Today the demand for compliance comes from all directions, from national regulations, European Directives, international conventions and even from unilateral decisions of Member states. Indeed, the movement towards international harmonisation of the classification and labelling of chemicals, though an admirable goal, actually can bring confusion by introducing yet more change.

Industry itself over this decade has learned to work within the framework of the new requirements, re-formulating products, making do without restricted chemicals, classifying, labelling and assessing risks, investing in abatement equipment, monitoring emissions, keeping records and completing forms, paying fees and fines. A compliance culture had been born.

The pressures are compounded by developments from below. Parts of industry, mainly large end-users, are themselves flexing their environmental muscle in pursuit of their own commercial ends. At the same time, a subtle change is making itself felt, a voluntary or a self-regulatory impulse coming from the grassroots of the industry. This impulse takes many forms, in which industry itself is beginning to take the environmental initiatives. These voluntary moves are widening the scope of legislative compliance or even bypassing its agenda.

Thus the relationship between coatings, regulations and the environment has become interactive, subtle and complex. First this paper will review the legislation, then highlight the emergence of a compliance culture.

The effect of legislation

The real effect of legislation, which strikes at the very heart of the coatings industry, is found in six areas. This is the legislation which hurts most because it defines the conditions of the manufacture, formulation, supply and application of coatings.

- Classification & labelling
- Market restrictions
- The notification of new chemicals
- The risk assessment of existing chemicals
- Occupational exposure limits and
- VOC controls

It is these areas on which this paper will concentrate. Most of this legislation is of European origin, derived from two main legislative streams:

- Chemical legislation as set out in the Dangerous Substances, Dangerous Preparations, Marketing and Use and associated Directives
- The 1999 VOC Control Directive

Occupational Exposure Limits, set mainly at national level, apply only partly Europe-wide.

Classification and labelling

Classification and labelling legislation sets fundamental restrictions on the formulation of coatings, as well as defining the conditions under which coatings are supplied. Although dangerous substances are not necessarily forbidden, their classification, complete with danger symbol and risk and safety phrases, has the effect of discouraging their use. The classification of TGIC as a mutagenic is a case in point. There has been a substantial growth both in the volume and scope of this legislation. Originally, in the UK, this had been implemented by the CPL (Classification, Packaging and Labelling) Regulations and from 1993 onward by the Chemicals Hazard Information and Packaging Regulations, (CHIP).

Table 1: Scope of European SHE legislation

1) Chemical Controls

- Classification, packaging, labelling
- Notification of new chemicals
- Existing substances
- Risk assessment
- Market restrictions
- Biocidal Products Directive
- Dangerous chemicals export/import restrictions

2) Health & Safety At Work

- Framework Health & Safety at Work and numerous amendments
- Social Protection Directives
- Pregnant women
- Working time
- Young people
- Occupational Exposure
- Chemical Agents
- Biological Agents
- Limit Values

3) Plant Safety

- COMAH

4) Environmental Pollution

- Integrated Pollution Control
- Air Pollution
- Solvent Directive
- Ambient Air Quality
- Ozone-depleting substances

- Water Protection
- Discharge of Dangerous Substances into Aquatic Environment
- Water Framework Directive
- Daughter Directives

- Waste
- Framework
- Hazardous wastes
- Shipment of wastes
- Landfill
- Waste incineration
- Packaging waste

5) Consumer Protection

- Food contact
- Food contact with plastics
- Toys Safety
- Standards
- Specific chemicals
- Phthalates
- General
- General product safety
- Integrated product safety

6) Transport

- ADR/RID Directives