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Release Agents and Their Correct Classification in the CLP Regulation

Technical Paper

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Correct Labeling of Greensand Release Agents

In 2008, the GHS Regulation (EC) No. 1272/2008, known as the CLP Regulation (Classification, Labeling and Packaging), was adopted. After the expiry of all transition periods on 01.01.2017, it has now fully replaced all the "old" directives.
Suppliers are obliged to implement classification, labeling and the appropriate containers strictly in accordance with the legal requirements; there is no room for discretion.

The user will be able to clearly recognize this from the labeling and information on the containers and in the safety data sheets.
Taking into account what has been said above, both users and suppliers have a common interest in keeping classification and labeling as correct as possible with regard to safety, the environment and health.

Suitable Ingredients

This is achieved first and foremost by selecting suitable ingredients. In the case of release agents, a distinction can always be made between actual active ingredients that enhance the performance,i.e. influence the separating effect, and the carrier media. The active ingredients of modern release agents are completely unproblematic in terms of safety, the environment and health. Problematic ingredients or traces in the raw materials are usually below the legal limits due to low concentrations or are below these limits in relation to the overall formulation.

The situation is different, however, with regard to the carrier media, the spectrum of which ranges from conventional solvents with high classification and labeling requirements to the carrier medium water, which is completely free of labeling and classification requirements. Between the former and a water-based release agent, there are various nuances, the classification and labeling of which require very precise consideration and evaluation.

Main Facts

In principle, the classification of chemicals is clearly defined from the point of view of safety with regard to flammability, health (such as the labeling of toxic or allergic effects) or the environment with regard to, for example, water pollution or damage to the ozone layer.

The classification of release agents for greensand applications nevertheless requires explanation:
The carrier media of greensand release agents may contain liquid substances and mixtures of mineral products (hydrocarbons) in excess of 10%, which have a kinematic viscosity of < 20.5 cSt (mm^2/sec) at 40°C.
In this case, the greensand release agents concerned must be labeled with the H statement (H = Hazard) 304 "Danger – May be fatal if swallowed and enters airways" and bear the GHS 08 pictogram.
According to CLP Regulation, the classification and labeling must be based on the kinematic viscosity. It is not permissible to express the viscosity as dynamic viscosity at 20°C in the unit mPas.

Reporting and labeling a numerically higher value based on the dynamic results in misleading and false labeling.
The impression is given that the greensand release agent is not to be labeled either in the safety data sheet or on the container. The user is not fully informed about the actual hazard potential of the greensand release agent.

Conventional release agents carry the hazard pictogram GHS 08.

BENTOGLISS 121 HV from ASK Chemicals is completely label-free according to CLP Regulation.

With the greensand release agent BENTOGLISS 121 HV, ASK Chemicals offers foundries a material that is particularly suitable for molding plants and hand molding machines. BENTOGLISS 121 HV is characterized by the complete absence of solvents, is therefore particularly environmentally friendly, health-friendly and absolutely label-free according to the CLP Regulation.

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