



Incorez position with regard to the use of N-Methyl Pyrrolidone and N-Ethyl Pyrrolidone in products.

Introduction

N-Methyl Pyrrolidone (NMP, CAS No.872-50-4) and N-Ethyl Pyrrolidone (NEP, CAS No.2687-91-4) are widely used in industrial and professional applications including process chemicals, coatings, adhesives, agricultural chemicals, electronics, pigment dispersions and paint stripping and cleaning.

In Europe the only supported uses of NMP are in industrial and professional applications. Workers may be exposed to NMP during such activities such as product transfer, repackaging, formulation, laboratory activities or as use as a component in professional or industrial products. Whilst the exposure to NMP in manufacturing facilities is considered low because of enclosed process, storage and handling operations, worker exposure can still potentially occur during operations such as product transfer, product sampling, or maintenance repair activities on product containing systems.

Regulation of Pyrrolidone Solvents

NMP is being phased out of many applications due to its reproductive toxicity. NMP is under evaluation in the European Union as a substance of very high concern (SVHC) and NMP based formulations must be labelled as reproductive toxicant category 1B (H360D) in accordance with regulation (EC) No 1272/2008 (CLP). The options for NMP are restrictions on its use or a complete ban on usage with controlled authorisation.

The immediate chemical replacement for NMP was NEP. Although initially thought to have reduced chemical hazard in comparison to NMP. NEP has undergone fuller assessment in recent years. In 2012, NEP was added to the Community Rolling Action Plan (CoRAP) list for further assessment of effects to human health and the environment. Following the consultation period and further testing, NEP has now also reclassified as a reproductive toxicant category 1B (H360D) in accordance with Commission Regulation (EU) No 944/2013. This regulation shall apply from 1st January 2015.

Non-toxic Alternative Dispersions

As a responsible manufacturer of speciality resins and intermediates for the coatings industry, Incorez Limited strives to eliminate the presence of potentially hazardous raw materials in our products. Reclassification of pyrrolidone solvents has been addressed by the launch of a new range of polyurethane and polyurethane/acrylic dispersions called the **Dispurez** range. These new products are without any hazard classification and have been designed to enable formulators to enhance the performance of their coatings over and above NMP/NEP containing products without the need to significantly increase volatile organic compound (VOC) content.