
Naming of Generic Hydrocarbon Solvents: an Update

by Alan Phenix

In a previous article, "Generic Hydrocarbon Solvents: a guide to nomenclature" (Vol. 29, No. 2, May 2007), I attempted to unravel some of the web of confusion that surrounds this particular subject. I've recently come across a publication which brings the situation a bit more up-to-date, at least from the European perspective, and I thought to offer this information as a kind of addendum.

In the 2007 article, I tried to explain some of the difficulties that occurred when using CAS Registry or European EINECS numbers for describing hydrocarbon solvents. Within the regulatory bodies of the European Community, the inconsistent and inaccurate description of hydrocarbon solvent products using CAS and EINECS registry conventions was recognized as a special problem, particularly in relation to environmental hazard classifications. In the late 1990s the European Chemicals Board invited the Hydrocarbon Solvents Producers Association (HSPA) – which is the solvents industry representative of the European Chemical Industry Council – to provide a rationale for the classification of these products, primarily with regard to their environmental, especially aquatic, toxicity. The first report by HSPA was published in 2000.

In 2008 HSPA published a further document on the subject entitled "Substance identification and naming convention for hydrocarbon solvents under REACH," available online and well worth a look. In all probability, the naming convention established by HSPA will become the descriptive framework for hydrocarbon solvents in years to come under the Europe-wide REACH initiative. The document gives some nice examples of how the new naming convention works, such as:

Common name	HSPA convention name
Hexane, technical	Hydrocarbons, C6, n-alkanes/ isoalkanes/cyclics, n-hexane (5-80%)
Regular white spirit	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics (2–25%)
De-aromatized white spirit	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

"Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics 2 – 25%" may not roll off the tongue as smoothly as white spirits, but it's a bit more precise in terms of describing what it actually is.

Notes and References

The Classification of petroleum solvent streams and related complex hydrocarbon solvents for aquatic environmental effects and the EU Dangerous Substances Directive. Report prepared by the Hydrocarbon Solvent Producers Association, August 2000. CEFIC – SPA Brussels, Belgium. Ref.: ECBI/73/95 Add. 10.rev. 1. See: esig.org/uploads/documents/121-560-hspa_substance_identification.pdf.

REACH is the EC Regulation for Registration, Evaluation, Authorisation, and Restriction of Chemicals. It entered into force on 1st June 2007 to streamline and improve the former legislative framework on chemicals of the European Union. REACH places greater responsibility on industry to manage the risks that chemicals may pose to the health and the environment. For further information, see: reach.jrc.it/.