

INCI and CAS

According to CAS, “CAS registry numbers are not dependent upon any system of chemical nomenclature. CAS numbers provide a common link between the various nomenclature terms used to describe substances and serve as an international resource for chemical substance identifiers used by scientists, industry and regulatory bodies” (<https://www.cas.org/>). Thus, CAS numbers can be interpreted to represent a link to numerous terms, including various INCI names and chemical names.

The relationship between a CAS number and an INCI name is not always one-to-one. In some cases, more than one INCI name may have the same CAS number, or more than one CAS number may apply to an INCI name. For example, the CAS number 1245638-61-2 has the CA Index Name of 2-Propenoic acid, reaction products with pentaerythritol. This CAS number can accurately be associated with two INCI names: Pentaerythrityl Tetraacrylate and Pentaerythrityl Triacrylate. Alternatively, the INCI name, Glucaric Acid can be associated with two CAS numbers: 87-73-0 which has the CA Index Name of D-Glucaric acid, and 25525-21-7, which has the CA Index Name of DL-Glucaric acid. Both of these examples are accurate associations between CAS and INCI.

Scientists, regulatory professionals, and government agencies should keep in mind that while CAS numbers are very helpful for tracking substances and filing various registrations, multiple numbers might be suitable for substance identification. It is also important for ingredient suppliers and their business partners to understand that the association between a CAS number and an INCI name is interpretative and should not restrict, nor promote, the usage of an ingredient. Ultimately, the listing of a CAS number in the INCI data base does not imply any regulatory status for the said ingredient in any particular jurisdiction. Suppliers may use CAS numbers for product descriptions and registrations independent of their inclusion in the INCI data base.