

Scope and Limitations of the Work

In compiling this dictionary every effort has been made to be as complete as possible. All sources of information open to the author have been used. These have included reference books, textbooks, magazines, journals, patents, government publications, company literature and product information, as well as the Internet and private market research work. A surprisingly large quantity of information on the industry is available in the public domain, although not always presented in the most straightforward way. A problem is distinguishing between what is speculation and what is fact.

The chemical routes and process details used in industry are rarely disclosed and then only in the most general terms. This means that judgements have had to be made concerning the raw materials and the chemistry involved. Often this can be done by analogy with related products or by the presence of a clear feedstock or technology position in manufacturers' portfolios. For smaller volume chemicals, patent information is useful as a guide. The temptation to simply assume that the obvious laboratory preparation is used in industry has been avoided wherever possible, however.

This element of judgement means that the information presented in the book should be treated with some caution by readers and viewed more as a personal interpretation of the public and private information available to the author than as the last word on the subject. In spite of considerable effort being made to ensure that information is correct in both substance and detail, there will undoubtedly be errors. Readers are therefore advised to keep this in mind when using the book. The dictionary is not intended as a laboratory or production manual and does not include data on the toxicity or handling of the chemicals listed. The absence of information on these topics should in no way be interpreted as implying that the chemical is free from hazard.

Nomenclature

The dictionary is arranged in alphabetical order by chemical name ignoring all leading number and letter prefixes. This means that entries such as *p*-methylbenzaldehyde or *N*-methyldicyclohexylamine are listed under 'm' rather than under 'p' or 'N'. Each chemical is referred to by a name commonly used in industry and does not adhere to any standard form of nomenclature. Abbreviations are expanded to the full names. The entries for 'MEK' and '2-butanone', for example, although both in the name index, point the reader to 'methyl ethyl ketone' as the prime entry for the chemical. For pesticides and drugs, ISO and INN names, respectively, have been used. Dyes and pigments are referred to by their Colour Index numbers, except in those few cases where trivial chemical names exist. Particular care should be taken with chemicals derived from natural oils, many of which are often named in a fairly loose way by industry and in this dictionary. Formulae of the type 'C18:2' are commonly used by the oil and surfactant producers to denote (in this case) an 18 carbon chain containing two double bonds. This nomenclature is used here.

Presentation

Entries follow the same pattern to a greater or lesser extent for each chemical. Under each heading are the various alternative names for the chemical, including well-known trade names, abbreviations and the Chemical Abstracts and EINECS/ELINCS numbers. Different names are separated with a semicolon (;).

The subsection headed 'Production' gives the synthetic routes believed to be used for the production of the chemical in industry. The 'Production' subsection generally includes raw materials, but not reagents unless these are specifically known. The different chemical products are separated by means of a plus (+) sign; alternative feedstocks are separated with a slash (/).

Information on the way a chemical is produced is provided in one of two ways. Large-tonnage commodity chemicals are usually made in dedicated plants and often by an individually named process. In these cases only the process name itself is provided in

the brackets immediately following the list of reactants. For other products the production route is indicated by means of reaction signposts, which should allow the steps in the synthesis to be worked out from basic chemical principles. Note that the reactants are used in the sequence in which they are written so the first step mentioned refers to reaction on the first chemical or between the first two chemicals. The second reaction step is then on the product of the first reaction, and so on. Occasionally the reaction sequence switches completely to a new reactant, but it is usually obvious when this is occurring so no special indication has been made. Where a chemical is made as a single product, no further information is provided. When it is produced as a coproduct or by-product, however, the associated products are listed after the reaction information, again using the slash (/) separator.

The 'Production' subsection is followed by the 'Derivatives' subsection which simply lists all the other entries in the book in which that chemical is referred to as a raw material. Its purpose is to provide a cross-reference to all the downstream products of the named chemical so that these can be referred to individually. The term 'Derivative' should be interpreted loosely.

The English spelling and terminology used in this dictionary is that of the United Kingdom. In most cases it the same as that used in the USA and should present no difficulties for English-speaking people of any nationality.

Feedback

The author would appreciate questions, comments, feedback, errors and additions that readers might have. He can be contacted using the form on the Feedback page.

Title Page Image

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Abbreviations

ACC	Abel closed cup
BP	boiling point
BR	boiling range
CAS	Chemical Abstracts Service
CC	closed cup
CFA	copper ferrocyanide
CI	Colour Index
COC	Cleveland open cup
d	density
EC	European Commission
EO	ethylene oxide
FAO	UN Food and Agriculture Organisation
FDA	US Food and Drug Administration
FP	freezing point
HLB	hydrophilic-lipophilic balance
INCI	International Nomenclature of Cosmetics Ingredients
INN	International Nonproprietary Name
ISO	International Organisation of Standardization
M	molecular weight
MP	melting point
NSE	non self-emulsifiable
OC	open cup
PMCC	Pensky-Martens closed cup
PMTA	phosphomolybdotungstic acid
PO	propylene oxide
SE	self-emulsifiable
TOC	Tag open cup