Specialty Chemicals Electronic Source Book. 1997 Edition on CD-ROM

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The Specialty Chemicals Electronic Source Book on CD-ROM is an electronic version of the two volume book of the same name. It is also available on diskette, and all three versions are priced at $375 from Synapse Information Resources, Inc. (1247 Taft Ave., Endicott, NY 13760, 607-748-4115, Toll Free 1-888-SYNCHEM, http://www.SynapseInfo.com, salesinfo@SynapseInfo.com). Minimum system requirements include Intel 386 CPU, 4 MB RAM, and Windows 3.1. Recommended requirements include Intel Pentium, 16 MB RAM, and Windows 95 or NT.

Although any of the hypertext enhancements will only work with Windows 95 or NT, the 16 bit, Windows 3.12 version works quite well. Navigation is quite facile and well described. An extensive table of contents and user guide is always available in the left hand window of the screen.

The print version, Specialty Chemical Source Book, contains monographs on more than 7400 chemical entities, four indexes, and a manufacturers directory. The electronic version (henceforth SCESB) contains these features plus a total of 16 browsable indexes, directories, and cross-references. The substances described are specialty chemicals used in a wide variety of applications, including agriculture, pharmaceuticals, food additives, oil field, coatings, and other polymer applications. The chemicals can be searched by name, synonyms, molecular formula, plus by various cross-reference directories, e.g., CAS Registry Numbers, EINECS/ELINCS numbers, and applications. Structure searching is not possible, but this is less of a problem because the compounds covered often have indefinite or unknown structures.

An example of a chemical intermediate is pyridine-*N*-oxide, which can be found by browsing the indexes or by a word search. The listing displays a number of fields including the name, CAS Registry and EINECS/ELINCS numbers, classification (heterocyclic *N*-oxide), synonyms, empirical formula, properties (sol., fp, mp, bp), toxicology (LD50 data, "irritant; mutagen; possible teratogen; TSCA listed"), precautions, storage, uses, and manufacturers/distributors. All of the data in these fields (exceptions: classification, physical properties) appear in a variety of colors, each color corresponding to a separate index or cross-reference. Clicking on a manufacturers name displays the directory listing for that company.

Scanning the comprehensive index for "garlic" yields the reference to "oil garlic" which is a synonym for allyl sulfide. In addition to the other fields mentioned, this record has toxicology data and precautions ("flammable") listed. Both are color highlighted and searchable in the appropriate cross-reference directory. Since listed use is as a synthetic food flavoring, both use level data and regulatory information (FDA) are shown but not highlighted or searchable.

Sources and descriptions of polymers are generally less available from traditional sources than for monomeric chemicals. These source books do list polymers, making them a valuable source. Searching the SCESB for "polybutene" retrieves a detailed listing for polybutene including a good definition: "polymer formed by polymerization of a mixture of iso- and normal butenes". Although the properties (lower MW), molecular formula (polymer of isobutylene), and the uses further define the material, misconceptions from CAS Registry are carried over (CASRN 9003-28-5, synonym 1-butene, homopolymer). As described elsewhere, polybutenes are better described as "polybutylenes" (one of the synonyms) or polymers of (primarily) isobutylene. ("Polyisobutene" or polyisobutylene, CASRN 9003-27-4, is listed and describes polyisobutylene rubber and other related materials.) The uses listed are extensive as well as the manufacturers/distributors and the trade names, making this a valuable reference.

For users who are at all oriented to applications or materials, these source books should be valuable, especially at the price. The ability to search for chemicals by toxicity, precautions, and storage requirements (e.g., allergen, reacts violently, light sensitive) as well as uses or applications (e.g., cosmetics, lubricants, germicides, stabilizers) is especially valuable.

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