

The exemption attempts to avoid duplication of paperwork because the Food and Drug Administration requires the transmittal of detailed information from the manufacturer in the form of package inserts and labels. Investigational drugs use clinical brochures as a substitute for the package insert.

Clinical brochures should be available on the clinical drugs at your institution for personnel handling and administering these antitumor agents, please request them from:

Pharmaceutical Management Branch
Cancer Therapy Evaluation Program
Division of Cancer Treatment
National Cancer Institute
Room 804, Executive Plaza North
Bethesda, Maryland 20892

Proper Handling and Disposal of Anti-Cancer Drugs:

The potential risks to individuals working with antineoplastic drugs have been the subject of much interest and concern in the health care community. Procedures for proper handling and disposal of anti-cancer drugs should be considered. Several guidelines on this subject have been published to assist practitioners who prepare and administer antineoplastic drugs in establishing a program of procedures designed to minimize inadvertent exposure to these agents (1-3). In addition, a videotape entitled "Safe Handling of Cytotoxic and Hazardous Drugs", 1990 edition, is available from the American Society of Hospital Pharmacists and may be used in training staff members. Although the nature and extent of any risks that might exist are uncertain, practitioners are encouraged to implement a program that will minimize their level of exposure.

Material Safety Data Sheets:

There have been several recent changes in the Hazard Communication Standard. The Hazard Communication Standard final rule was published August 24, 1987 and required that chemical manufacturers, importers, and distributors ensure that Material Safety Data Sheets (MSDS's) are provided with the next shipment of hazardous chemicals to non-manufacturing employers or distributors after September 23, 1987 (Federal Register 52:31852-31886, 1987). This revised standard exempted "drugs when they are solid, and in final form for direct administration to the patient (i.e., pills or tablets)".

Subsequently the final rule was amended December 4, 1987 (Federal Register 52: 46075-46080) to exempt any drug regulated by the FDA in the non-manufacturing sector from the requirement to supply MSDS's.

established expiration date. The year that a drug was manufactured by a National Cancer Institute contractor can also be determined from the first two digits of the lot number (e.g. BV-87-301 and UI-90-202 were manufactured in 1987 and 1990, respectively). Any expired drug should be returned to the NCI Clinical Drug Repository along with a completed Return Drug Form.

Preparation Information:

The recommended constitution and dilution directions are based on formulation and solution stability studies performed on each drug. 0.9% Sodium Chloride Injection, USP, 5% Dextrose Injection, USP, or 5% Dextrose in 0.45% Sodium Chloride Injection, USP, the most common infusion vehicles, are usually selected for solution compatibility studies. The omission of other vehicles does not imply incompatibility. The solution stability data which have been developed are presented.

Infrequently, the formulation of a product is changed or a new vial size is made available in between editions of this book. Information in these monographs should not be used as a substitute for the preparation instructions on the label of the product.

Compatibility:

Compatibility of the investigational agents with other drugs or with antibacterial preservatives is not usually evaluated. Investigational agents manufactured by the NCI are designed as single-use dosage forms and admixture with other agents is, in general, not recommended. Compatibility studies of selected investigational agents in plastic are currently being conducted by NCI contractors.

recommendations are frequently based on accelerated shelf-life studies at elevated temperatures. Each new lot of investigational products manufactured by a National Cancer Institute is placed on a shelf-life surveillance study. Generally, each lot is studied for five years in the freezer (-10 °C) and recommended storage conditions. Elevated temperatures are included as appropriate. The NCI receives updated stability data every three months for the first year, every six months for the second year and yearly thereafter.

Many of the product monographs in this book include stability data for temperatures higher than the recommended storage condition. These data are provided to allow decisions on whether to use products which may have inadvertently been stored above the labeled temperature for short periods of time (e.g. a product which is labeled for refrigerated storage which is left at room temperature for a day or two).

Shipping:

Storage information is provided on the label. Occasionally, product labeling requires refrigeration, but the product is shipped without ice. These products are stable for short periods of time at room temperature, but still must be stored under refrigeration upon receipt.

Expiration Dating:

Older products carry an expiration date placed on the label, which is based on real-time stability studies. The drug may be used through the end of the month specified.

Newer drugs will carry only the manufacturing date; these drugs are undergoing stability evaluation but do not yet have an

GENERAL INFORMATION

Product information is presented in a uniform manner. The standardized format begins with the drug's labeled name as the monograph title. When a United States Adopted Name (USAN) is available, it is generally used. Otherwise, the name most commonly applied to the agent, or in some cases the chemical name, may be used. Other identification data presented include the structural formula, CAS registry number, chemical name, any common names other than those previously listed, the molecular formula and the molecular weight.

The composition and packaging of the investigational dosage forms are then described. Descriptive terminology for parenteral products (e.g. "Sterile.....", "..... for Injection") as defined in the official United States Pharmacopeia is utilized.

NSC Numbers:

Each investigational compound studied by the NCI is assigned a unique number. This universally recognized identification number is called the "NSC" number, which refers to the former Cancer Chemotherapy National Service Center. The NCI maintains its files and data for each compound based on its assigned NSC number. When information is requested on a particular NCI compound, use of the NSC number will facilitate a response and assure that both the requestor and NCI are referring to the same compound. **NSC numbers for special diluents have been added where appropriate.**

Stability and Storage:

Recommended storage conditions for the intact dosage forms are presented in each monograph. For new products, the