4. PRODUCTION, IMPORT, USE, AND DISPOSAL

4.1 PRODUCTION

BDCM is produced commercially by the reaction of dichloromethane with aluminum bromide. Small quantities of BDCM are currently produced in the United States, but quantitative production volumes are not available.

4.2 IMPORT

No data on imports or exports of BDCM were located. Little, if any, of either is expected.

4.3 USE

In the past, BDCM has been used as a solvent for fats, waxes, and resins, as a flame retardant, as a heavy liquid for mineral and salt separations, and as a fire extinguisher fluid ingredient (Sax 1984). At present, the principal use of BDCM is as a chemical intermediate for organic synthesis and as a laboratory reagent (Sittig 1985; Verschueren 1983). BDCM is not listed as a current ingredient in fire extinguishers, solvents or other commercial products (Gosselein et al. 1984).

4.4 DISPOSAL

Bromodichloromethane is categorized as a hazardous waste constituent (40 CFR 261 App. VIII) and, therefore, must be disposed of in accordance with RCRA regulations. Acceptable disposal methods include incineration using liquid injection, rotary kiln or fluidized bed techniques. At the present time, land disposal of BDCM is also permitted, although trihalomethanes are being evaluated for land disposal prohibition.

BDCM has been detected in the raw and treated wastewater of numerous industries (EPA 1983), but no quantitative data on amounts of BDCM disposed of to the environment were located. BDCM has been detected at 7% of chemical waste sites investigated under Superfund (CLPSD 1988).

4. PRODUCTION, IMPORT, USE AND DISPOSAL

4.5 ADEQUACY OF THE DATABASE

Section 104(i)(5) of CERCLA, directs the Administrator of ATSDR (in consultation with the Administrator of EPA and agencies and programs of the Public Health Service) to assess whether adequate information on the health effects of BDCM is available. Where adequate information is not available, ATSDR, in cooperation with the National Toxicology Program (NTP), is required to assure the initiation of a program of research designed to determine these health effects (and techniques for developing methods to determine such health effects). The following discussion highlights the availability, or absence, of exposure and toxicity information applicable to human health assessment. A statement of the relevance of identified data needs is also included. In a separate effort, ATSDR, in collaboration with NTP and EPA, will prioritize data needs across chemicals that have been profiled.

4.5.1 Data Needs

Production, Use, Release and Disposal. The minimal commercial use of BDCM is reflected in the absence of available production data. Data on current uses and disposal practices would be valuable in determining whether industrial activities pose an important source of human exposure to BDCM.

According to the Emergency Planning and Community Right to Know Act of 1986(EPCRTKA), (§313), (Pub. L. 99-499, Title III, §313), industries are required to submit release information to the EPA. The Toxic Release Inventory (TRI), which contains release information for 1987, became available in May of 1989. This database will be updated yearly and should provide a more reliable estimate of industrial production and emission.