

#### 4. PRODUCTION, IMPORT, USE, AND DISPOSAL

##### 4.1 PRODUCTION

1,2-Dibromo-3-chloropropane was first produced commercially in the United States in 1955 (IARC 1979). In 1969, U.S. production was 8.58 million pounds (IARC 1979). Estimates of annual production during 1974-1975 ranged from 18 to 20 million pounds (IARC 1979; NTP 1985). 1,2-Dibromo-3-chloropropane is no longer commercially manufactured in the United States (Hawley 1981; Sax and Lewis 1987). R.W. Greeff & Co., Inc., in Old Greenwich, Connecticut, is listed as a current supplier of 1,2-dibromo-3-chloropropane for domestic research purposes (OPD 1989). It is not known whether this supplier produces 1,2-dibromo-3-chloropropane in the United States or imports the chemical. Two companies were listed as producers of 1,2-dibromo-3-chloropropane in 1977 (EPA 1989b). The production volume of Columbia Organic Chemicals Co., in Columbia, South Carolina, was listed as less than 1,000 pounds. No production volume was listed for the other producer, Velsicol Chemical Corp., in El Dorado, Arkansas. As 1,2-dibromo-3-chloropropane is no longer used as a fumigant and nematocide in the United States, it is likely that its current production volume in the United States, if any, is very low.

##### 4.2 IMPORT/EXPORT

No quantitative data concerning the recent import or export of 1,2-dibromo-3-chloropropane in the United States were found. Ameribrom Inc., in New York, New York, was listed as an importer of 1,2-dibromo-3-chloropropane in 1977; no import volume was listed (EPA 1989b). Because R.W. Greeff & Co., Inc., is listed as a current supplier of 1,2-dibromo-3-chloropropane (OPD 1989), it may be an importer of the chemical. It is unlikely that significant amounts of the chemical are imported into the United States since its former major uses as a soil fumigant and nematocide are no longer permitted in the United States (EPA 1977, 1979, 1985b, 1985c). No significant exports are expected since it has been reported that 1,2-dibromo-3-chloropropane is no longer made in the United States (Hawley 1981; Sax and Lewis 1987).

##### 4.3 USE

1,2-Dibromo-3-chloropropane is used as an intermediate in the synthesis of organic chemicals, such as the brominated flame retardant tris[(2,3-dibromopropyl)phosphate] (Verschueren 1983). Until 1977, 1,2-dibromo-3-chloropropane was extensively used as a soil fumigant and nematocide on over 40 different crops in the United States (Anonymous 1988). The chemical was used to protect field crops, vegetables, fruits and nuts, nursery and greenhouse crops, and turf from pests (NTP 1985). From 1977 to 1979, EPA suspended registration of products containing 1,2-dibromo-3-chloropropane except for use on pineapples in Hawaii (Anonymous 1988; EPA 1977, 1979). In 1985, EPA issued an intent to cancel all registrations for 1,2-dibromo-3-chloropropane-containing pesticide products, including use on pineapples.

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Subsequently, the use of existing stocks of 1,2-dibromo-3-chloropropane on pineapples was prohibited (EPA 1985b, 1985c).

Prior to the cancellation of pesticide uses, 1,2-dibromo-3-chloropropane was used extensively; 9.8 million pounds of 1,2-dibromo-3-chloropropane were applied in 1974 (NTP 1985). In California, 831,000 pounds of the chemical were applied, mainly on grapes and tomatoes, during 1977 (NTP 1985). The volume of 1,2-dibromo-3-chloropropane applied to pineapple fields in Hawaii between 1979 and 1985 was probably high, since during much of that time, the chemical was the preferred fumigant for use on pineapple fields (Albrecht 1987).

##### **4.4 DISPOSAL**

1,2-Dibromo-3-chloropropane has been identified as a hazardous waste by EPA, and the disposal of this compound is regulated under the federal Resource Conservation and Recovery Act (RCRA) (EPA 1988b, 1988c). Specific information regarding federal regulations on the land disposal of 1,2-dibromo-3-chloropropane is provided in the Code of Federal Regulations (EPA 1988c). No acceptable chemical decontamination is known for 1,2-dibromo-3-chloropropane (HSDB 1989). Dilution of the chemical with a flammable solvent is necessary for incineration to be effective, and the products must be passed through scrubbers to remove the hydrogen bromide and hydrogen chloride that is produced (HSDB 1989).