

4. PRODUCTION, IMPORT, USE, AND DISPOSAL

4.1 PRODUCTION

Bromomethane is produced by reaction of methanol with hydrobromic acid, followed by distillation of the product (HSDB 1989; IARC 1986; Windholz 1983). Table 4-1 summarizes information on U.S. companies that reported the manufacture or use of bromomethane in 1987 (TRI 1989). The quality of the TRI data must be viewed with caution since the 1987 data represent first-time, incomplete reporting by these facilities. Not all facilities that should have reported have done so. Of the companies that did report, only two facilities produced bromomethane for sale and distribution: the Ethyl Corporation production facility in Magnolia, Arkansas, and the Great Lakes Chemical Corporation production facility in El Dorado, Arkansas (HSDB 1989; SRI 1987, 1988, 1989; TRI 1989). The current combined production volume of these two facilities is approximately 19,500 metric tons (43 million pounds) (HSDB 1989; IARC 1986). This is nearly a two-fold increase over the production volume of 11,200 metric tons (25 million pounds) reported for 1972 (IARC 1986).

4.2 IMPORT/EXPORT

Imports of bromomethane were 735 metric tons (1.6 million pounds) in 1982, while exports were 2,130 metric tons (4.7 million pounds) in 1984 and 4,135 metric tons (9 million pounds) in 1987 (HSDB 1989). More detailed data regarding the import and export of bromomethane were not located.

4.3 USE

The primary use of bromomethane is as a soil or space fumigant for the control of insects, fungi, and rodents (EPA 1986b; HSDB 1989; IARC 1986). Space fumigation is usually performed by enclosing the structure in a sealed tent and releasing bromomethane gas inside, while soil fumigation is usually done by injecting bromomethane into the soil underneath a nonporous covering. Bromomethane is also used as a methylating agent in various chemical reactions, and as a solvent to extract oils from nuts, seeds, and wool. Bromomethane was also used in fire extinguishers in Europe from the 1920s through the 1940s (IARC 1986), but never gained widespread use as a fire extinguishing agent in the United States (Alexeeff and Kilgore 1983).

4.4 DISPOSAL

Because bromomethane is a gas above 3.6°C (38°F), most disposal is by release to the atmosphere (see Section 5.2.1). Disposal of liquid or solid wastes that contain bromomethane is regulated by federal restrictions which apply to hazardous substances (see Chapter 7).

TABLE 4-1. Facilities That Manufacture or Process Bromomethane^a

Facility	Location	Maximum Amount on site (lbs)	Use
Amoco Chemical Company	Decatur, AL	100-999	As an impurity
Great Lakes Chemical Co. El Dorado- Main Plant	El Dorado, AR	1,000,000-9,999,999	For sale/distribution
Gerber Products Company	Fort Smith, AR	1,000-9,999	In ancillary or other uses
Ethyl Corporation	Magnolia, AR	1,000,000-9,999,999	Produce; for sale/distribution; as a byproduct
Asgrow Florida Company	Hollister, CA	100,000-999,999	As a formulation component
Hms Chemicals Inc	Belle Glade, FL	No Data	As a formulation component
Florida Fertilizer Co. Inc.	Palmetto, FL	100,000-999,999	As a formulation component
Hercules-Brunswick Plant	Wauchula, FL	100,000-999,999	For sale/distribution; in repackaging
Borden, Inc. Grocery & Specialty Products	Brunswick, GA	1,000-9,999	In ancillary or other uses
Borden, Inc. Grocery & Specialty Prds.	Lowell, MA	10,000-99,999	In ancillary or other uses
Mobay Corporation - Agricultural Chemicals Div.	Warren, MI	1,000-9,999	In ancillary or other uses
Comet Delta, Inc.	Kansas City, MO	100,000-999,999	As a reactant
Coastal Chemical Corporation	Greenville, MS	1,000-9,999	In ancillary or other uses
The Pillsbury Company	Greenville, NC	100,000-999,999	In re-packaging
Hershey Chocolate U.s.a. Hershey Plant	Buffalo, NY	No Data	In ancillary or other uses
Consolidated Cigar Corp.	Hershey, PA	1,000-9,999	In ancillary or other uses
Amoco Chemical Company Cooper River	Cayey, PR	No Data	In ancillary or other uses
Cargill Flour Milling	Wando, SC	100-999	Produce; as a byproduct
	Saginaw, TX	1,000-9,999	In ancillary or other uses

^aDerived from TRI 1989.