

台灣地區砷、汞、鎘及其化合物之用途和用量調查研究

Usage and Amount of Arsenic, Mercury and Cadmium

Compounds in Taiwan Area.

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摘要

砷、汞、鎘及其化合物在工業、農業及製藥的使用相當廣泛，但也是美國環境保護署列為最優先列管的毒性化學物質。我國台灣地區本地並未出產砷、汞、鎘等金屬，全仰賴進口以供應各產業之需求。為瞭解砷、汞、鎘及其化合物在國內的用途和用量，本研究依據經濟部國貿局商務中心建檔之進口資料加以統計分析，並實地訪查大宗進口之廠商，以瞭解其產品與製程。調查結果顯示：砷及其化合物之進口量，民國 71 年為 574 公噸，76 年高達 769 公噸，79 年（1-8 月）為 398 公噸；主要用於農藥製造業和玻璃製造業。汞及其化合物之進口量，民國 71 年為 10 公噸，76 年高達 48 公噸，79 年（1-8 月）為 20 公噸；主要用於中藥業、儀器製造業、電子製造業和燈管製造業。鎘及其化合物之進口量，民國 71 年為 174 公噸，75 年高達 477 公噸，78 年以後因氧化鎘不必申報，故申報進口量降至 79 年的 9 公噸；主要用於化學製造業。為確實掌握砷、汞、鎘及其化合物的用途和用量，宜加強砷、汞、鎘及其化合物進口廠商的海關申報作業，環保單位應嚴格要求製造及使用廠商確實定期申報進口量，使用量及庫存量等運作記錄，並隨時不定期查核，此外更應社絕地下工廠獲得原料的管道，才能真正掌握台灣地區砷、汞、鎘及其化合物的用途和用量。

Abstract

Arsenic, mercury and cadmium compounds are used widely in industry, agriculture and pharmaceutical manufacture. They are also listed as the important toxic substances to be controlled with top priorities by the U.S.A. Environmental Protection Agency. The specific aim of this study is to estimate the usage and amount of arsenic, mercury, and cadmium compounds in Taiwan area. Based on the analysis of official data and field survey, all materials of arsenic, mercury, and cadmium compounds were imported. The imported arsenic compounds were 574 kilotons in 1982, 769 kilotons in 1987 and 398 kilotons in 1990 (from January through August). These compounds were used mainly in pesticide and glass manufacturing industry. The imported mercury compounds were 10 kilotons in 1982, 48 kilotons in 1987 and 20 kilotons in

1990 (from January through August). They were used mainly in manufacturing Chinese pharmaceuticals and electronic utilities. The imported cadmium compounds were 174 kilotons in 1982, 477 kilotons in 1986. The imported amount of cadmium oxide was no longer reported after 1990. They were used in chemical manufacturing industry. In order to control the usage and amount of these toxic compounds effectively, it is important to enforce the official imported materials reporting system and a manufacture recording system of these compounds.