

BACKGROUND

The provisions of Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) allow chemicals to be added to or deleted from the Section 313 list as a result of petitions initiated by private citizens, industries, state governors, or by Agency initiative. As specified in Section 313(d)(2) of the statute, chemicals may be added to the list if they are known to cause, or can be anticipated to cause, adverse health and/or environmental effects. On May 25, 1993, the EPA Administrator announced that the Agency is in the process of developing a rulemaking to add chemicals to the Toxic Release Inventory (TRI) by the end of the year.

Under this Work Assignment, ICF/Clement is preparing chemical summaries containing health and environmental effects data from readily available secondary sources including IRIS, Inhalation RfC documents, Health Advisories, NTP studies, ATSDR Toxicological Profiles, Shepard's Catalogue of Teratogenic Agents, and O'Donoghue's Neurotoxicity of Industrial and Commercial Chemicals. Data on EPA rated Group A and B carcinogens were retrieved from IRIS. For chemicals with no EPA carcinogenicity rating and chemicals that are rated EPA group C, D, or E, emphasis is placed on the chronic, subchronic, or acute toxicity, developmental/reproductive toxicity, neurotoxicity and/or target organ effects resulting in systemic toxicity. Occasionally, genotoxicity data are presented to support the carcinogenicity of a compound. All effects are summarized from secondary sources. On-line searches of a limited number of databases, including CCRIS, HSDB, IRIS, RTECS, NPIRS, MERCK INDEX, CHEMFATE, EPA/OPP'S ENVIRONMENTAL FATE, ENVIRONMENTAL EFFECTS and TOX ONE-LINERS, QSAR and AQUIRE, were also performed to supplement the information from the secondary sources. Additional data from EPA/OPP's files, including Cancer and Developmental Peer Reviews, Phase IV Reviews, List A Registration Standards and Reference Dose documents, were made available for review by OPP.

Each chemical summary presents information on the physical/chemical properties, environmental fate, and adverse health and environmental effects of the subject chemicals, along with NOEL and LOEL values, in an effort to focus decision making on those key health and environmental effects that are most likely to support the EPCRA Section 313 finding of reasonably anticipated, significant, and irreversible toxicity. As specified in Section 313 (d)(2) of the statute, a chemical may be added to the list if any one of the following criteria are met: "(A) The chemical is known to cause or can reasonably be anticipated to cause significant adverse, acute human health effects...; (B) the chemical is known to cause or can reasonably be anticipated to cause in humans--(i) cancer or teratogenic effects, or (ii) irreversible effects, (iii) reproductive

dysfunctions, (iv) neurological disorders, (v) heritable genetic mutations, or (vi) other chronic health effects; (c) the chemical is known to cause or can reasonably be anticipated to cause, because of its toxicity, toxicity and persistence, or toxicity and bioaccumulation, a significant adverse effect on the environment."

Based on readily available information for each chemical, except for acute toxicity, all effects were compared to the Section 313 criteria outlined in the Draft Hazard Assessment Guidelines For Listing Chemicals On The Toxic Release Inventory (EPA 1992). For assessing acute toxicity data for each chemical, the EPCRA Section 302 criteria developed for listing chemicals on the extremely Hazardous Substances List (i.e., Acute inhalation LC₅₀: 0.5 mg/L for exposures less than or equal to 8 hours; oral LD₅₀: 25 mg/kg/day; dermal LD₅₀: 50 mg/kg/day) were applied. These criteria were applied only if the key effect of concern was acute and no chronic toxicity data existed or the other available data were inadequate. A summary of the health and environmental hazard recommendations reached for each pesticide follows.

CHEMICAL SUMMARY

Chemical Name: **CHLORSULFURON**
[2-Chloro-N-[[[4-methoxy-6-methyl-1,3,5-triazin-2-yl]amino]carbonyl]benzenesulfonamide]

CAS No.: 64902-72-3

Key Effects: Developmental, reproductive

Developmental: In a rabbit developmental study, an increased incidence of fetal resorptions was observed at the LOEL of 75 mg/kg/day. The NOEL was 25 mg/kg/day (route and duration not reported) (24).

Reproductive: In a 3-generation rat reproduction study, a decrease in fertility index was observed at 125 mg/kg/day (LOEL). The NOEL was 25 mg/kg/day (24).

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