Part IV

Environmental Protection Agency

40 CFR Part 372
Addition of Certain Chemicals; Toxic Chemical Release Reporting; Community Right-to-Know; Proposed Rule
levels of sodium fluoroacetate caused salivation, loss of speech, violent convulsions, and coma in a male worker. The patient ultimately recovered. Neurological effects have also been reported in rats in a 13-week oral study. Four of 20 female rats treated with 0.50 mg/kg/day (the highest dose tested) exhibited convulsions at day 79, with no recurrence for the remainder of the study. An estimated lethal dose of sodium fluoroacetate in humans ranges from 5 to 10 mg/kg.

EPA believes that there is sufficient evidence for listing sodium fluoroacetate on EPCRA section 313 pursuant to EPCRA section 313(d)(2)(B) based on the neurologic, reproductive, and myocardial toxicity data for this chemical.

Measured oral LD50 values of fluoroacetate in the house sparrow, redwing blackbird, starling and golden eagle are 3.0, 4.22, 2.37, and 1.25 to 5 mg/kg, respectively. In addition, measured acute toxicity data for mammalian wildlife include an oral LD50 of 0.22 to 0.44 mg/kg for mule deer, an oral LD50 of 1.41 mg/kg for male ferrets, and an oral LD50 of 0.5 to 1.0 mg/kg for bears. EPA believes that there is sufficient evidence for listing sodium fluoroacetate on EPCRA section 313 pursuant to EPCRA section 313(d)(2)(C) based on the environmental toxicity data for this chemical.

228. Sodium nitrite (CAS No. 000062-74-8) (CERCLA; EPCRA EHS; FIFRA SR; RCRA APPB; RCRA P) (Ref. 8). In a 13-week oral study in rats, gavage administration of sodium nitrite (0.02 mg/kg/day) resulted in decreased testis weight and altered spermatogenesis in males (the NOAEL was 0.05 mg/kg/day). In addition, increased heart weight was noted in females and males administered 0.20 mg/kg/day of sodium fluoroacetate. The increase in heart weight, however, was only accompanied by subacute, minimal inflammation (not dose-related). Also, nitrite levels were significantly increased after 4 weeks in males administered 0.50 mg/kg/day and after 13 weeks in both male and female rats administered 0.20 or 0.50 mg/kg/day. The testicular and cardiac effects were reported to be consistent with those noted in the literature.

A case study reported a deliberate ingestion of an unspecified dose of sodium nitrite by a healthy female. The patient experienced nausea, vomiting, and abdominal pain 30 minutes after ingestion, with subsequent seizures occurring 60 minutes after the initial onset of symptoms. Neurological examination after 2 weeks revealed severe cerebellar dysfunction. By 18 months, memory disturbances and depressive behavior persisted. Initial exposure to unspecified

232. Sodium o-phenylphenoxide (CAS No. 000132-27-5) (CERCLA; IARC) (Ref. 8). Sodium o-phenylphenoxide has been classified by IARC as a Group 2B compound, i.e., a probable human carcinogen. This was based on the occurrence of increased incidence of hamartomas, liver and bone lesions in female mice. EPA believes that there is sufficient evidence for listing sodium o-phenylphenoxide on EPCRA section 313 pursuant to EPCRA section 313(d)(3)(B) based on the available carcinogenicity data for its parent compound, pentachlorophenol.