SIDS INITIAL ASSESSMENT PROFILE

CAS No.	104-90-5
Chemical Name	5-Ethyl-2-picoline
Structural Formula	

CONCLUSIONS AND RECOMMENDATIONS

This chemical is currently of low priority for further work.

SHORT SUMMARY WHICH SUPPORTS THE REASONS FOR THE CONCLUSIONS AND RECOMMENDATIONS

This chemical was produced in the range of 10,000-50,000 tonnes in 1992. This chemical is mainly used as an industrial intermediate for the production of nicotinic acid and nicotinamide. This chemical may be released to water and air during production and filling processes. In surface water this chemical will degrade and will not bioconcentrate in fish. In air the substance is degraded quite rapidly.

This chemical has a log Pow<3, a relatively high water solubility and is degradable. The lowest aquatic effect concentrations were determined with algae (NOEC(72h): 0.689mg/l). Applying an assessment factor of 10 the resulting PNEC is 0.0689mg/l. This value has to be compared with that derived from the lowest toxicity value of the acute tests (biomass algae: EC50(72h): 30.6mg/l). An assessment factor of 100 has to be chosen when L(E)C50 values for all three taxonomic groups are available. With this assessment factor the PNEC is 0.31mg/l. Comparing the two derived PEC values (0.002mg/l and 0.03mg/l) with the lower PNEC of 0.0689 mg/l gives PEC/PNEC ratios of 0.03 and 0.44. This chemical is of moderate acute toxicity, is not genotoxic, has to be classified as corrosive and has no effect on the general reproductive performance of test animals. Based on the NOEL of 30mg/kg/day from the 28-days oral toxicity study in rats, the estimated dose of low concern (EDLC) can be calculated taking into account an uncertainly factor (UF) of 100, so 0.3 mg/kg/day. EDLC/EHEocc = 37.5.

The results of occupational exposure do not give cause for concern, and no hazard to human health exists for the general population in the vicinity of the plant.

NATURE OF FURTHER WORK RECOMMENDED