SIDS INITIAL ASSESSMENT PROFILE

CAS No.	123-01-3 and 6742-54-7
Chemical Name	Benzene, C10-C16 Alkyl derivatives
Structural Formula	CH ₃ CH ₃ Where $x + y = 7 - 13$ and $x = 0 - 6$

CONCLUSIONS AND RECOMMENDATIONS

This group of chemicals is currently of low priority for further work.

SHORT SUMMARY WHICH SUPPORTS THE REASONS FOR THE CONCLUSIONS AND RECOMMENDATIONS

Attention: This chemical is to be discussed with 6742-54-7, 68442-69-3, 68648-86-2, 68648-87-3, 129813-58-7, 129813-59-8 and 129813-60-1 as a group of Alkylbenzenes.

Dodecylbenzene (123-01-3) and undecylbenzene (6742-54-7) are not produced in significant commercial quantity as pure materials. Manufacturers produce various mixtures of long-chain linear alkybenzenes with the alkyl group containing from 10 to 16 carbon atoms.

The production of linear alkylbenzene sulfonate (LAS), a detergent surfactant, consumes greater that 98% of all linear alkylbenzenes. The potential for employee exposure is limited and infrequent. The low vapor pressure and controls utilized for other materials used in the process limits the emission of linear alkylbenzenes to air.

Linear alkylbenzenes undergo rapid primary biodegradation in natural waters and complete mineralization by microorganisms under aerobic conditions and in sludge amended soils. Due to their metabolism, these materials possess little potential to bioconcentrate in fish. They do not appear to undergo direct photolysis or chemical change in the environment.

Linear alkylbenzene, at various concentrations up to and exceeding their approximate water solubility limits, had no acute effects on all the species tested, except *Daphnia magna*. Linear alkylbenzene is 10 times more toxic to Daphnids than fish in acute tests.

Linear alkylbenzenes are not acutely toxic. Data from repeat exposure, reproductive and genotoxicity studies also indicate a low potential for toxic effects.

The levels of both consumer and occupational exposure are expected to be very low based on their physical and

chemical properties, use and handling patterns.

NATURE OF FURTHER WORK RECOMMENDED

No need for further work.