SIDS INITIAL ASSESSMENT PROFILE

CAS No.	78-93-3
Chemical Name	Methyl Ethyl Ketone (MEK)
Structural Formula	$H_{3}C \underbrace{C}_{H_{2}}C \underbrace{C}_{CH_{3}}$

CONCLUSIONS AND RECOMMENDATIONS

Methyl Ethyl Ketone is currently considered of low priority for further work.

SHORT SUMMARY WHICH SUPPORTS THE REASONS FOR THE CONCLUSIONS AND RECOMMENDATIONS

MEK is high production volume chemical (1940 million pounds annually in the world; 620 million pounds annually in US) which is primarily used in commercial and industrial settings and is rarely found in commercial products. The major use of MEK is as a solvent and chemical intermediate. As a solvent, MEK is used surface coatings, adhesives, inks, traffic making paints, cleaning fluids, and dewaxing agents. Manufacture of MEK takes place in an enclosed process and transport of the material occurs through enclosed systems or bulk carrier. This condition significantly limits exposure during manufacture and handling.

Based on physical and chemical properties, MEK is an unlikely environmental contaminant. It undergoes degradation in the atmosphere and in aqueous environments and has a low degree of toxicity to environmental species. MEK may contribute to the formation of photochemical smog.

MEK has been shown to be of a low order of toxicity following acute oral, dermal, and inhalation exposure. Contact with the eyes may produce irritation. MEK has not been shown to produce skin sensitization. No significant signs of toxicity were seen following repeated inhalation exposure of rats to MEK at high concentrations. MEK and its metabolic surrogate, 2-butanol, do not appear to present significant risk of adverse reproductive or developmental effects. MEK has not been shown to have any neurotoxic potential. MEK has been consistently negative in genotoxicity studies, both *in vitro* and *in vivo*. Human volunteers exposed to relatively high levels of MEK did not demonstrate any significant effects, other than minor irritation and sensory effects.

NATURE OF FURTHER WORK RECOMMENDED