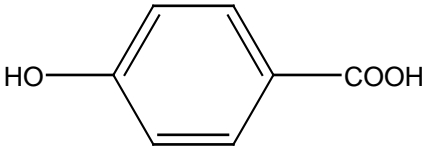


**SIDS INITIAL ASSESSMENT PROFILE**

<b>CAS No.</b>	99-96-7
<b>Chemical Name</b>	4-Hydroxybenzoic acid
<b>Structural Formula</b>	
<p style="text-align: center;"><b>RECOMMENDATIONS</b></p> <p style="text-align: center;">The chemical is currently of low priority for further work.</p>	
<p style="text-align: center;"><b>SUMMARY CONCLUSIONS OF THE SIAR</b></p> <p><b>Human Health</b></p> <p>Oral LD<sub>50</sub> of 4-hydroxy benzoic acid for rats is more than 2,000 mg/kg. This chemical is considered to be slightly irritating to skin and moderate to eyes, and a mild skin sensitizer. In an OECD combined repeat dose and reproductive/developmental toxicity study in rats at 40, 200 and 1,000 mg/kg/day, this chemical induced rale and rhinorrhea, indicative of irritation to respiratory tract irritation, and small fluctuation of blood chemistry with no changes of histopathological findings and organ weights. These changes of blood chemistry are considered not to be adverse. Therefore, no sign of toxic effects in repeated dose toxicity testing were detected at the highest dose of 1,000 mg/kg/day. Reproductive toxicity was not observed up to the highest test dose of 1000 mg/kg/day, suggesting no reason for concern. This chemical is not genotoxic, based on negative results of bacterial mutation test and chromosomal aberration test <i>in vitro</i>. In vaginal cornification and uterotrophic assay of mice, this chemical showed estrogenic response.</p> <p><b>Environment</b></p> <p>4-Hydroxybenzoic acid is readily biodegradable (OECD 301C: 100 % after 28-day), and low bioaccumulative based on Log P<sub>ow</sub> value (1.37 at 25 °C).</p> <p>Toxicity of this chemical seems to be relatively low to aquatic organisms because all toxicity data to test organisms belonging to three trophic levels were higher than 32 mg/l. For the algal test (<i>Selenastrum capricornutum</i>), 72-h EC<sub>50</sub>, 72-h NOEC and 96-h EC<sub>50</sub> are 68.5 mg/l, 32.0 mg/l and 42.8 mg/l, respectively. For testing in daphnids, <i>Daphnia magna</i>, both 48-h EC<sub>50</sub> for immobilisation and 21-day EC<sub>50</sub> for reproduction were more than 100 mg/l. LC<sub>50</sub>s of <i>Oryzias latipes</i> were &gt;100 mg/l (48 hours), 92.8 mg/l (72 hours) and 92.8 mg/l (72 hours), 14-day LC<sub>50</sub> was 66.5 mg/l. No data are available for effects on terrestrial organisms.</p> <p><b>Exposure</b></p> <p>It is produced ca. 10,000 tons/year by one company in Japan, and 142 tons (ca. 1.4 %) is wasted through a wastewater treatment plant with a removal rate of 97 % together with 4.4 × 10<sup>9</sup> L/year effluent into sea. This chemical is used as intermediate for pesticide, antiseptics and pharmaceuticals. No consumer use is reported.</p>	

A generic fugacity model (Mackey level III) shows that most (99.5%) of this chemical will be distributed in water phase after discharged into water.

**NATURE OF FURTHER WORK RECOMMENDED**