

SIDS INITIAL ASSESSMENT PROFILE

CAS No.	151-21-3
Chemical Name	Sodium dodecyl sulfate (SDS)
Structural Formula	$\text{CH}_3-(\text{CH}_2)_{11}-\text{O}-\text{SO}_3^-\text{Na}^+$
RECOMMENDATION OF THE SPONSOR COUNTRY Based on an initial assessment of the effect and exposure data provided in the SIDS dossier, the chemical can be considered to present a low potential for risk to man and the environment. Thus there is no current priority for undertaking post-SIDS testing and/or exposure analysis or an in-depth assessment.	
SHORT SUMMARY WHICH SUPPORTS THE REASONS FOR THE CONCLUSIONS AND RECOMMENDATIONS The production volume of SDS is ca. 10,000 t/a in Germany. SDS is used as a surfactant in detergents, dispersants, cosmetics and toiletry. SDS is classified as "readily biodegradable" with "low bioaccumulation". The most sensitive environmental species to SDS is the clam <i>Corbicula fluminea</i> (30d-NOEC = 0.65 mg/l). All relevant toxicity endpoints are covered. SDS is a substance of low toxicity. The substance did not induce mutations in different test systems. The lowest NOAEL was established for repeated dose toxicity, being 100 mg/kg bw/day. The aquatic local PEC was estimated to be 2.3 µg/l, additional to a "background" regional PEC of further 2.3 µg/l. It is calculated that adult consumers may be exposed to up to 0.030 mg/kg/day and that babies may be exposed to 0.034 mg/kg/day. The highest consumer exposure, however, is estimated to occur to children, with the worst case exposure being 0.160 mg/kg/day. Babies (ca. 0.25 mg/kg/day) and adults (ca. 0.05 mg/kg/day) are exposed to a lesser extent. Occupational exposure is calculated to be about 0.100 mg/kg/day, and the combined consumer and occupational exposure for workers is about 0.130 mg/kg/day. Based on the NOEC of 0.65 mg/l, a risk to the aquatic compartment is not to be expected. A safety margin for worst case human exposure (children) of > 600 was established in the risk assessment. Taking into account the quality and quantity of the toxicological data and the kind of health effects observed (mild hepatotoxicity), a safety margin of > 600 is considered sufficient. Therefore, it is concluded that sodium dodecyl sulfate is of no concern with respect to human health.	
NATURE OF FURTHER WORK RECOMMENDED none	