

Summary of Public Comments received on the Challenge substances Diethyl sulfate (CAS RN 64-67-5) and Dimethyl sulfate (CAS RN 77-78-1) Proposed Risk Management Approach documents for Batch 4

Comments on the proposed risk management approach for diethyl sulfate and dimethyl sulfate to be addressed as part of the Chemicals Management Plan Challenge were provided by Inuit Tapiriit Kanatami, Chemical Sensitivities Manitoba, and the Canadian Environmental Law Association. The table contains a condensed version of each comment and a response in non-technical terms.

A summary of comments and responses is included below, organized by topic:

- [Vulnerable populations](#)
- [Risk management](#)
- [Risk management instruments](#)
- [Occupational exposure](#)
- [Alternatives](#)

TOPIC	COMMENT	RESPONSE
Vulnerable populations	With so many uses of diethyl sulfate and dimethyl sulfate, risk of exposure is high, with particular implications for vulnerable populations, children, and communities without adequate disposal facilities.	The absence of data on the amounts of dimethyl sulfate or diethyl sulfate in products, along with the way these substances are used in manufacturing, suggests their presence in finished products is very small, so risk of exposure would be low. Diethyl sulfate and dimethyl sulfate also break down in water, so affected waste streams are unlikely sources of exposure.
	Vulnerable populations such as Northern peoples must be protected from exposures to diethyl sulfate and dimethyl sulfate.	These substances breakdown quickly in the environment. So it is expected that community industrial sites / sources will not be affected as there are little or no amounts remaining in the environment.
Risk management	There is no plan to add diethyl sulfate and dimethyl sulfate to the <i>Environmental Emergency Regulations (E2 Regulations)</i> despite the fact that they meet the criteria.	Under the <i>E2 Regulations</i> , where a substance on Schedule 1 meets or exceeds the set threshold, Environment Canada requires submission of information and/or preparation of an Environmental Emergency (E2) plan.

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	Diethyl sulfate and dimethyl sulfate should be added to the <i>E2 Regulations</i> based on their carcinogenicity.	At this time, diethyl sulfate or dimethyl sulfate do not require addition to the <i>E2 Regulations</i> since the quantities of these substances either present or imported into Canada are below proposed thresholds. Environment Canada monitors quantities of these substances found in Canada. Any increase above proposed thresholds reported as a result of a notice in response to the Significant New Activity provisions, may trigger their addition to the <i>E2 Regulations</i> .
	Future use notification for dimethyl sulphate is not comprehensive enough to protect the environment and people. Such a proposal does not encourage industry to reduce or eliminate this chemical. Historic, present, and future uses and releases must be considered for risk management of diethyl sulfate and dimethyl sulphate.	The assessment reports note that exposure to these substances by the general population is very limited, in light of the indication that they are not released to the general environment in Canada, and because of their very reactive nature. Therefore, the Significant New Activity provisions under CEPA 1999 are recommended, such that any new manufacture, import or use of these substances will be assessed to determine if further risk management is needed.
Risk management instruments	Because diethyl sulfate and dimethyl sulfate are carcinogens, there should be no threshold for reporting their releases under the NPRI.	With some exceptions, the NPRI specifies release-reporting thresholds for all categories of substances, including carcinogens. Those substances with lower or no threshold reporting limits are substances that are known to have a greater risk of causing harm. The framework for listing substances with an alternative threshold is available at: http://www.ec.gc.ca/inrp-npri/default.asp?lang=en&n=E972C079-1 . While the inherent hazard associated with a substance is one factor, other factors are considered, such as; volume and type of use, behaviour in the environment, significance of releases at the local and regional level, and the reasonable expectation that releases from sources will exceed the established alternate threshold.
	Listing diethyl sulfate and dimethyl sulfate substances on the <i>Cosmetic Ingredient Hotlist</i> does not lead to restrictions on the	No data on residuals levels of diethyl sulfate and/or dimethyl sulfate have been identified in cosmetics in Canada, and these substances are not listed in the Canadian Cosmetic, Toiletry and

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	concentration of these substances in these products.	Fragrance Association (CCTFA) International Cosmetic Ingredient Dictionary. There are no active suppliers of these raw materials to the cosmetic industry. The Government of Canada will regard diethyl sulfate and/or dimethyl sulfate as substances of concern when present in a cosmetic and this will be communicated on Health Canada's Cosmetic Ingredient Hotlist, which is an administrative tool to communicate to manufacturers and others that certain substances, when used in a cosmetic, may cause injury to the health of the user in contravention of section 16 of the Food and Drugs Act.
Alternatives	Diethyl sulfate and dimethyl sulfate have a wide range of industrial and consumer uses. Residual concentrations of these substances may be present in cosmetics, children's toiletries, and pharmaceuticals. So they should be phased out, and Pollution Prevention (P2) Plans should be developed and alternatives identified.	No data on residuals levels of diethyl sulfate and/or dimethyl sulfate have been identified for cosmetics, toiletries or pharmaceuticals in Canada. Based on available data, it would be expected that consumer exposure through finished products would be negligible and therefore alternatives or phase-out is not required.
Occupational exposure	Occupational exposures for diethyl sulfate and dimethyl sulfate should be subject to government management.	While the scope of assessments reports under CEPA 1999 are focused on the potential risks to the general Canadian public, occupational exposures are considered with respect to the potential health effects associated with a substance. In terms of risk management, again the focus is on protecting the health of the Canadian public at large; however the detailed scientific information within the assessment report is made available to officials at the federal and provincial levels responsible for occupational health and safety and they may subsequently consider additional action with respect to workers.