**LAB CAS 123-01-3:**

This message is regarding a linear alkylbenzene (LAB) product CAS 123-01-3 that is categorized as a priority chemical on the Domestic Substance List. The message is being sent on behalf of CEPSA Quimica, S.A., a Spanish company that is a world leader in LAB production, with an LAB plant in Canada (Bécancour – Québec).

In providing this information on LAB, CEPSA is supported by CLER, the Council for LAB/LAS Environmental Research, an organization of scientists and technical specialists representing manufacturers of linear alkylbenzene (LAB) and linear alkylbenzene sulfonate (LAS). CLER's mission is to conduct research and distribute scientific information on the environmental and human safety of these materials.

LAB is an extremely well documented product, with extensive data available from a completed dossier (IUCLID 2000), an EU Risk Assessment Report (Revision June 1997), and an OECD SIDS Assessment Report (OECD 2002). Based on this data we are providing the following information with the request that the information be used to update the categorization of LAB CAS 123-01-3 on the DSL:

Inherently Toxic to Aquatic Organisms?

The most reliable data indicate that LAB does not demonstrate acute aquatic toxicity at water soluble concentrations based on the results of several tests carried out at saturated concentrations not only on LAB but on pure homologues and showing no adverse effects (See EU Risk Assessment report, p. 18, available at: http://ecb.jrc.it/DOCUMENTS/Existing-Chemicals/RISK_ASSESSMENT/REPORT/labreport009.pdf)

Based on the weight of available evidence, LAB should not be categorized as inherently toxic to aquatic organisms.

Bioaccumulative?

Data are available from a bioconcentration factor (BCF) study in fish (*Lepomis macrochirus*) using radiolabeled LAB. The results, BCF = 35, indicate low bioaccumulative potential. The BCF findings are supported by other data indicating rapid metabolism (depuration) in fish (and in rats) of LAB and of its sulfonated derivative, linear alkylbenzene sulfonate (LAS). (See EU Risk Assessment report, pp. 8-9)

The weight of available evidence strongly supports the DSL categorization that LAB is not bioaccumulative.

Persistent?

The available data indicate that LAB undergoes rapid biodegradation, for instance, demonstrating greater than 60% biodegradation in 28 days in the OECD 301F and 301B tests. (See EU Risk Assessment report, p. 7)

The weight of available evidence strongly supports the DSL categorization that LAB is not persistent.

Meets Environmental Criteria for Categorization?

The available data (above) demonstrating that LAB is not inherently toxic to aquatic organisms, as well as the data concurring with the DSL categorization that LAB is neither bioaccumulative nor persistent, strongly supports the DSL categorization that LAB does not meet the environmental criteria.

Human Health Priorities?

LAB is an intermediate used to produce LAS, a cleaning agent or surfactant used in detergents. Because residual levels of LAB in LAS are low (typically 0.5%) consumer exposure to LAB from detergents products is low. Because LAB is manufactured and processed in close systems, worker exposure to LAB is also low. (See EU Risk Assessment report, pp. 6-17)

Based on the weight of available evidence, LAB should be categorized as Lowest Potential for Exposure.

The low health hazard potential of LAB is well documented (EU Risk Assessment report, pp. 24-33). Consequently, LAB should be categorized as a Low Hazard compound.

Regarding the potential risks of LAB, the EU Risk Assessment (p. VII) concluded:

> No concern for workers. The margins of safety range from 46 (dermal exposure) to more than 100 (inhalation exposure).
>
> For consumers, the margins of safety are very high, more than 8000.
>
> For men exposed indirectly via the environment, the margins of safety do not indicate concern (MOS > 100000).

Based on the weight of available evidence, LAB should be categorized as Low Human Health Priority.

Meets Human Health Categorization Criteria?

The available data (above) demonstrating that LAB has low potential for human exposure and is neither persistent nor bioaccumulative and is a low toxicity compound with low risks (large margins of safety) for workers, consumers and indirect exposure via the environment strongly supports the DSL categorization that LAB does not meet the human health criteria.

Meets CEPA Categorization Criteria?

The available data (above) concurring that LAB does not meet the environmental or human health criteria strongly supports the DSL categorization that LAB does not meet the CEPA criteria.

We respectfully request that the information cited in this message be used to update the categorization of LAB CAS 123-01-3 on the DSL and that this information be retained in the CEPA DSL file on this material.

Additional information sources

Additional information on LAB may be found at the United Nations Environment Programme website (http://www.chem.unep.ch/irptc/sids/OECDSIDS/LAB.pdf) and at the websites for Ecosol (http://www.lasinfo.org/) and CLER (www.cler.com).