Logged in as John Heinze from CLER. Log out

Search

Your Account

Help



# General Ingredient Information - Viewing as a Formulator - Back

Company	CLER Website
Product Name	LAS
Status	Reviewed
Supplier Product Number	CLER Standard
Charge Class	Anionic
Chemical Class	linear alkylbenzene sulfonate, sodium salt
Product Description	LAS is any commercial material that has the CAS number and name listed under Components. Specifications are for 100% active LAS; specifications for commercial products vary and should be selected to best meet formulation needs. Commercial product is also available as the sulfonic acid; neutralization with NaOH in liquid formulations yields LAS.
Applications	Hard Surface Cleaner Hand Dish Soap Carpet Laundry
Suggested Uses	Workhorse surfactant for laundry detergents and cleaning products

EU Detergent Directive Compliance	Yes
EU Detergent Directive Comments	LAS complies with the EU Detergent Directive by virtue of the fact that it is readily biodegradable. See environmental data for documentation of LAS ready biodegradability.
Technical Data Link	http://www.cler.com

# **Physical Properties**

Physical Form	Solid @ 25°C / 77°F
% Active Surfactant	100 %
HLB	-
рН	-
Critical Micelle Concentration	0.1 g/L
Surface Tension	31 Dynes/cm at 0.1 g/L at 25°C / 77°F
Density or Specific Gravity	1.06 kg/L
Flash Point	-
Cloud Point	-

# Components

Name	CAS	%
Decylbenzene sulfonic acid, sodium salt	1322-98-1	100%
Dodecylbenzene sulfonic acid, sodium salt	25155-30-0	100%
Tridecylbenzene sulfonic acid, sodium salt	26248-24-8	100%
Undecylbenzene sulfonic acid, sodium salt	27636-75-5	100%
C10-C16 Monoalkylbenzene sulfonic acid, sodium salt	68081-81-2	100%
C10-C13 Alkylbenzene sulfonic acid, sodium salt	68411-30-3	100%
C10-C14 Alkyl deriv. benzene sulfonic acid, sodium salt	69669-44-9	100%
C10-C14 Monoalkylbenzene sulfonic acid, sodium salt	85117-50-6	100%
C10-C13 Alkyl deriv. benzene sulfonic acid, sodium salt	90194-45-9	100%
4-C10-13-sec Alkyl deriv. benzene sulfonic acid, sodium salt	127184-52-5	100%

# Ingredient-Level Environmental Summary

**DfE Screen** Yes

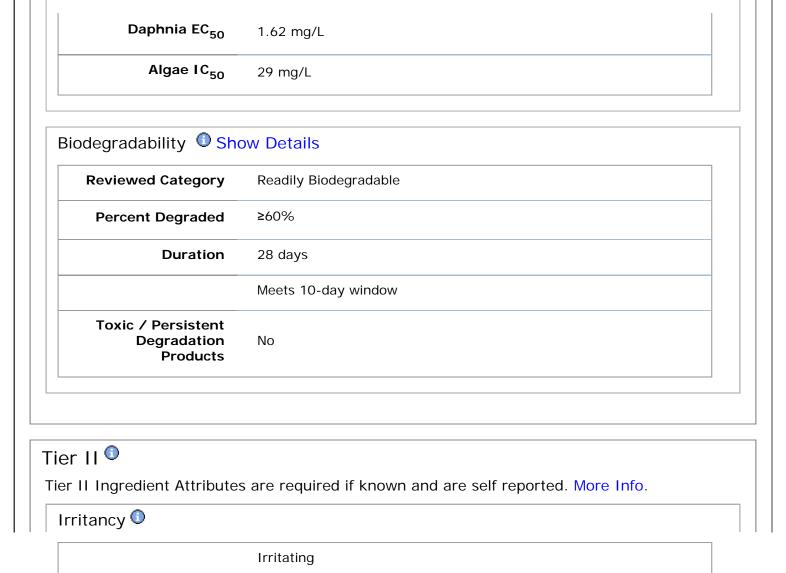
Tier I 0

Tier I Ingredient Attributes require the submission of test data and third party review. More Info.

Acute Aquatic Toxicity Show Details

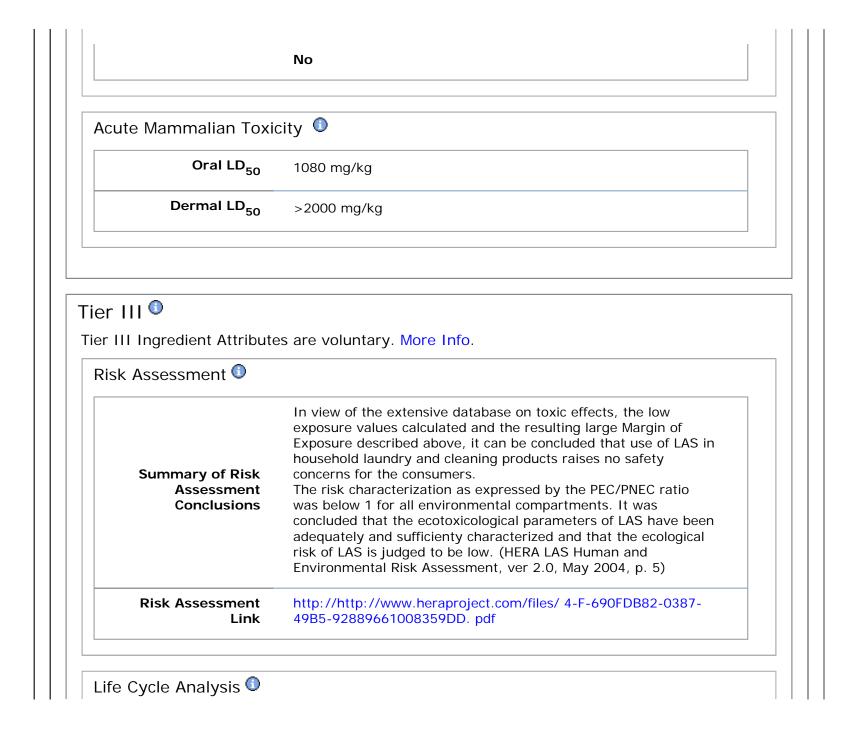
 Reviewed Category
 >1 and ≤10 mg/L

 Fish LC<sub>50</sub>
 1.67 mg/L



## to about 1% (some congestion does occur at 0.05-0.5%), moderately irritating at 5%, and more severely irritating at 47-50%. At these higher concentrations the irritation may be present for up to 14 days. In studies that included rinsing, **Irritancy Test** irritation effects diminished with rinsing after 30 seconds of Results exposure and were slight with rinsing after 4 seconds of exposure. Human experience has established that irritation effects of consumer products containing LAS and other surfactants are moderate, transient and reversible (LAS OECD SIDS Initial Assessment Report, August 15, 2005, p. 25). Sensitization 0 Is the ingredient or are any of its components (@ >0.1% concentration) known to be a sensitizer? No Skin sensitization studies with guinea pigs showed no sensitization at either lower (6.7%) or higher (50%) concentrations. Results of animal studies, human exposure **Sensitization Test** studies and actual use support the conclusion that LAS does not Results have significant skin sensitization properties (LAS OECD SIDS Initial Assessment Report, August 15, 2005, p. 25). VOC Content 0 % VOC (w/w) 0 % Presence of APEs Does the ingredient or do any of its components contain **APEs**

alkylphenol ethoxylates?



### Summary of Life Cycle Analysis Conclusions

Life-Cycle inventories "do not support fundamental shifts in surfactant usage or feedstock sourcing on the basis of environmental concerns as no single surfactant or feedstock was identified as superior across all resource and emissions criteria examined."

Pittenger et al.LCI.1993.pdf - 1.32 MB

#### LCA File

Life-Cycle inventories were compiled to characterize natural resource requirements and environmental emissions of surfactants for detergents and cleaning products. Surfactants examined included linear alkylbenzene sulfonate, alcohol sulfate, alcohol ethoxylate, alcohol ethoxylate sulfate and methyl ester sulfonate. Feedstocks examined included animal fat (tallow), natural gas, palm and palm kernel oils and petroleum.

View File Info | Delete File

### Origin of Feedstock 0



### **Feedstock Type**

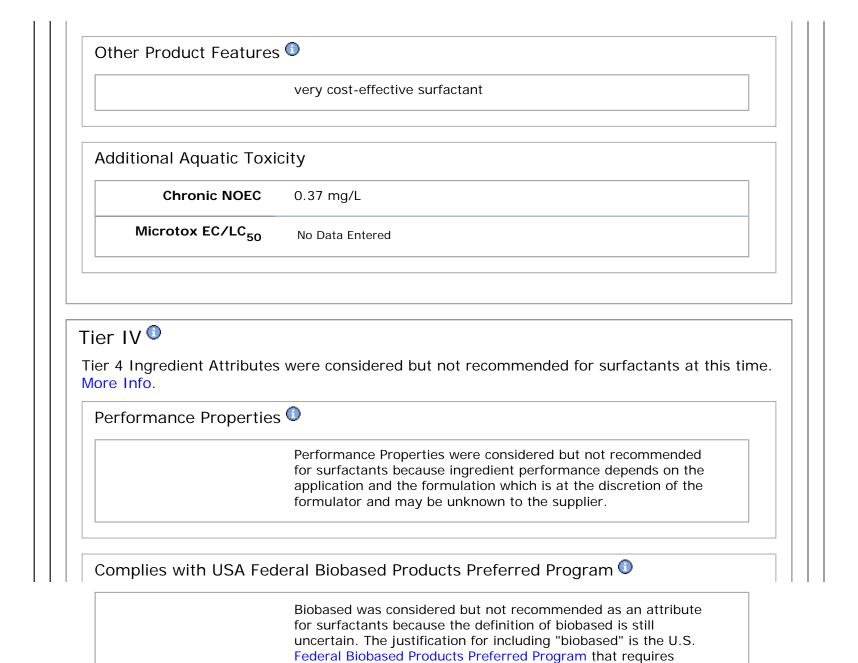
None

The available scientific data "do not support fundamental shifts in surfactant usage or feedstock sourcing on the basis of environmental concerns as no single surfactant or feedstock was identified as superior across all resource and emissions criteria examined." See LCA information above.

### Endocrine Disruption 0



Neither LAS nor its sulfophenylcarboxylate biodegradation intermediates displayed estrogenic activity in two in vitro assays. See LAS\_Dossier\_0805.doc (link above), Section 4.9(b) and (c), page 157.



government purchasers to prefer **domestic** biobased products

when feasible. Due to inherent conflicts between the Farm Bill and trade legislation passed by Congress, the definition of biobased may be extended to include bioderived materials sourced from international trade partners. Until the definition is resolved, it is problematic to include biobased as an attribute. The TAC recommended revisiting the biobased attribute once the definition of biobased is resolved.

### Bioaccumulation 0

Bioaccumulation potential was considered but not recommended for surfactants because surfactants are considered surface active and not bioaccumulating. Bioaccumulation potential will be relevant to other ingredient classes.

## Neurotoxicity 0

Neurotoxicity was considered but not recommended for inclusion as a surfactant attribute because it is not considered a significant issue with surfactants. Neurotoxicity will be relevant to other ingredient classes.

## Carcinogens, Mutagens and Reproductive toxins (CMR)

Carcinogens, mutagens and reproductive toxins (CMR) were considered but not recommended for inclusion for surfactants because CMRs are not considered to be a significant issue for surfactants. Carcinogenicity, mutagenicity and reproductive toxicity will be relevant to other ingredient classes.

Disclaimer: Only data on acute aquatic toxicity, biodegradability, and degradation products are reviewed by a designated third party for purposes of listing in the CleanGredients(tm) database. All other data and product information are provided by ingredient suppliers who are individually responsible for the accuracy of the information. All TestCorp and GreenBlue Ingredients are fictional and are provided for demonstration purposes only.

If you experience technical difficulties or have any suggestions or comments, please let us know at info@cleangredients.org