

LAURYL ALCOHOL ETHOXYLATE (9 moles)

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Identification

Substance name : Lauryl alcohol ethoxylate 9 moles
CAS # : 68439-50-9
Chemical family : Nonionic Surfactants
Synonyms : Dodecyl poly(oxyethylene)ether; Ethoxylated lauryl alcohol;
Lauromacrogol; Lauryl alcohol ethoxylated; Lauryl poly(oxyethylene) ether

1.2. Recommended use and restrictions on use

Applications of the substance/mixture

- Detergents
- Industrial & Institutional cleaning
- Industrial use
- Production of other chemicals

1.3. Supplier

Address : Novichem Co.
30 Magnolia Str, Qaem Maqam Farahani Ave.
Tehran 15886-13941 IRAN

1.4. Emergency telephone number

Emergency number : +98-21-88329799 (Product information)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Short-term (acute) aquatic hazard Category 1 Very toxic to aquatic life.
Long-term (chronic) aquatic hazard Category 3 Harmful to aquatic life with long lasting effects.
Eye irritation Category 2 Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word

Warning

Hazard statements

H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P391 Collect spillage.
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

Danger of slipping after spill or leakage.

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substances**

Component	Product identifier	%
Lauryl-Myristyl alcohol Ethoxylate	CAS-No. 68439-50-9	99.9

4. FIRSTAID MEASURES**4.1 Description of first aid measures**

General advice	If you feel unwell, seek medical advice (show the label where possible). Take off all contaminated clothing immediately.
If inhaled	Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a physician.
In case of skin contact	Wash off immediately with plenty of water. Consult a physician if necessary.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Consult a physician. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed	Symptoms: No information available. Risks: No information available.
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4.3 Indication of any immediate medical attention and special treatment needed

Indication of any immediate medical attention and special treatment needed	Treatment: No information available.
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5. FIREFIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media	Water spray, Dry powder, Foam, Carbon dioxide (CO ₂)
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5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	Dangerous gases or fumes may occur in case of fire.
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5.3 Advice for firefighters

Special protective equipment for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions Avoid subsoil penetration.
Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). The material taken up must be disposed of in accordance with regulations.

6.4 Reference to other sections

For personal protection see section 8.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling Wear personal protective equipment.
Avoid contact with skin and eyes.

Advice on protection against fire and explosion Normal measures for preventive fire protection.
Do not spray on a naked flame or any incandescent material.

Fire-fighting class B: Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperatures.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Keep tightly closed in a dry and cool place.

Storage class (TRGS 510) 10: Combustible liquids not in Storage Class 3

Other data Stable at normal ambient temperature and pressure.

7.3 Specific end use(s)

Specific use(s) This information is not available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

National occupational exposure limits

No data available

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

No data available

DERIVED NO EFFECT LEVEL (DNEL)

Substance name: Alcohols, C12-14 (even numbered), ethoxylated (CAS: 68439-50-9)

No data available

PREDICTED NO EFFECT CONCENTRATION (PNEC)

Substance name: Alcohols, C12-14 (even numbered), ethoxylated (CAS: 68439-50-9)

No data available

8.2 Exposure controls

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection	No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.
Hand protection	<p>The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).</p> <p>gloves suitable for permanent contact: Material: butyl-rubber Break through time: >= 480 min Layer thickness: >= 0,7 mm</p> <p>gloves suitable for splash protection: Material: Nitrile rubber/nitrile latex Break through time: >= 30 min Layer thickness: >= 0,4 mm</p>
Eye protection	Tightly fitting safety goggles, Safety glasses with side-shields
Skin and body protection	Wear suitable protective equipment.
Hygiene measures	Avoid contact with the skin and the eyes. Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke.
Protective measures	Avoid contact with the skin and the eyes. Wear suitable gloves and eye/face protection.

ENVIRONMENTAL EXPOSURE CONTROLS

General advice	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.
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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	liquid; 20 °C;
Form	hazy viscous liquid
Colour	50 Max. pt-co
Odour	mild
Odour Threshold	No valid method available
pH	5 - 7; 20 g/l; 20 °C
HLB, calculated	13.1 - 13.8
Boiling point/boiling range	Not applicable
Cloud point (10% in 25% BDG)	79 - 81 °C

Material Safety Data Sheet

Viscosity at 50 °C	24 - 26 C.st
Flammability (solid, gas)	not applicable (liquid)
Lower explosion limit	No data available
Upper explosion limit	No data available
Average molecular weight	0.98 ± 0.02 g/mol
Hydroxyl value	93 - 98 mgKOH/g
Density	0.85 - 0.95 gr/cm ³
Water content	0.5 wt% Max.
Partition coefficient: n-octanol/water	Not relevant / not applicable Justification: surface-active substance
Auto-ignition temperature	not auto-flammable
Viscosity, dynamic	No data available
Explosive properties	not expected based on structure and functional groups
Oxidizing properties	not expected based on structure and functional groups

10. STABILITY AND REACTIVITY**10.1 Reactivity**

Note Stable at normal ambient temperature and pressure.

10.2 Chemical stability

Note No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions None known.

10.4 Conditions to avoid

Conditions to avoid Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.

10.5 Incompatible materials to avoid

Materials to avoid Strong acids and oxidizing agents;

10.6 Hazardous decomposition products

Hazardous decomposition products No decomposition if stored and applied as directed.

Thermal decomposition Hazardous decomposition products formed under fire conditions.

11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****Acute toxicity**

Acute oral toxicity Alcohols, C12-14, ethoxylated (>=2.5 EO):
LD50 Rat: > 2.000 mg/kg
own test results/literature values
Category approach
Based on available data, the classification criteria are not met.

Acute inhalation toxicity	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): No data available
Acute dermal toxicity	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): LD50 Rabbit: > 2.000 mg/kg; Category approach (literature value) Based on available data, the classification criteria are not met.
Skin corrosion/irritation	
Skin irritation	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): Rabbit: not irritating own test results/literature values Category approach Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	
Eye irritation	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): Rabbit: Irritation to eyes, reversing within 7 days Category approach own test results/literature values Causes serious eye irritation.
Respiratory or skin sensitisation	
Sensitisation	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): Maximisation Test Guinea pig: not sensitizing Category approach (literature value) Based on available data, the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity in vitro	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): In vitro tests did not show mutagenic effects Category approach own test results/literature values
Genotoxicity in vivo	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): In vivo tests did not show mutagenic effects Category approach (literature value)

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): LC50 (96 h) Brachydanio rerio (zebrafish): > 0,1 - 1 mg/l ; semi-static test own test results/literature values Category approach
Toxicity to daphnia and other aquatic invertebrates	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): EC50 (48 h) Daphnia magna (Water flea): > 0,1 - 1 mg/l ; static test; own test results/literature values Category approach
Toxicity to aquatic plants	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): EC50 (72 h) Desmodesmus subspicatus (green algae): > 0,1 - 1 mg/l ; static test; own test results/literature values; Category approach Alcohols, C12-14, ethoxylated (≥ 2.5 EO): EC10 (72 h) Desmodesmus subspicatus (green algae): 0,1 - 1 mg/l ; static test; own test results/literature values; Category approach
Toxicity to bacteria	Alcohols, C12-14, ethoxylated (≥ 2.5 EO): EC50 activated sludge: 140 mg/l; Respiration inhibition Category approach (literature value)

Toxicity to terrestrial flora Alcohols, C12-14, ethoxylated (≥ 2.5 EO):
emergence, growth; NOEC: 10 mg/kg; Lepidium sativum (cress); OECD Test
Guideline 208
own test results/literature values
Category approach

Toxicity for other terrestrial non-mammalian fauna Alcohols, C12-14, ethoxylated (≥ 2.5 EO):
No data available

12.2 Persistence and degradability

Biodegradability Alcohols, C12-14, ethoxylated (≥ 2.5 EO):
Readily biodegradable.; $> 60\%$; 28 d; aerobic; OECD Test Guideline 301B
own test results/literature values
Category approach

12.3 Bioaccumulative potential

Bioaccumulation Alcohols, C12-14, ethoxylated (≥ 2.5 EO):
Bioaccumulation is unlikely.
(literature value)

12.4 Mobility in soil

Mobility Alcohols, C12-14, ethoxylated (≥ 2.5 EO):
Moderately mobile in soils

12.5 Results of PBT and vPvB assessment

Results of PBT assessment This substance/mixture contains no components considered to be either persistent,
bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative
(vPvB) at levels of 0.1% or higher.

Results of PBT assessment Alcohols, C12-14, ethoxylated (≥ 2.5 EO):
This substance is not considered to be persistent, bioaccumulating and toxic
(PBT).
This substance is not considered to be very persistent and very bioaccumulating
(vPvB).
Category approach

12.6 Other adverse effects

General advice Alcohols, C12-14, ethoxylated (≥ 2.5 EO):
Very toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Can be incinerated, when in compliance with local regulations.

waste code of the European Union: EWC A waste code in accordance with the European Waste Catalogue (EWC) may not
be assigned to this product since it admits of a classification only when the
consumer uses it for some purpose. The waste code must be determined in
agreement with the regional waste disposal authority or company.

14.1 UN number

ADR	3082
RID	3082
ADN	3082
IMDG	3082
ICAO/IATA	3082

14. TRANSPORT INFORMATION

14.2 Proper shipping name

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty alcohol polyethoxylated)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty alcohol polyethoxylated)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty alcohol polyethoxylated)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty alcohol polyethoxylated)
ICAO/IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty alcohol polyethoxylated)

14.3 Transport hazard class

ADR	9
RID	9
ADN	9
IMDG	9
ICAO/IATA	9

14.4 Packing group

ADR	III
RID	III
ADN	III
IMDG	III
ICAO/IATA	III

14.5 Environmental hazards

ADR	Environmentally hazardous	yes
RID	Environmentally hazardous	yes
ADN	Environmentally hazardous	yes
IMDG	Marine pollutant	yes
ICAO/IATA	Environmentally hazardous	yes

14.6 Special precautions for user

ADR	Hazard Identification Number	90
	Labels	9
	Tunnel restriction code	(-)
IMDG	Labels	9
	EmS Number 1	F-A
	EmS Number 2	S-F
ICAO/IATA	Labels	9MI

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

NOTIFICATION STATUS

Switzerland. Consolidated Inventory	CH INV	listed (product or constituents are listed)
US. Toxic Substances Control Act	TSCA	listed (product or constituents are listed)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	DSL	listed (product or constituents are listed)
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	listed (product or constituents are listed)
Japan. Kashin-Hou Law List	ENCS (JP)	listed (product or constituents are listed)
Japan. Industrial Safety & Health Law (ISHL) List	ISHL (JP)	listed (product or constituents are listed)
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	listed (product or constituents are listed)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	listed (product or constituents are listed)
China. Inventory of Existing Chemical Substances (IECSC)	INV (CN)	listed (product or constituents are listed)

Please note: the names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in chapter 3.

15.2 Chemical safety assessment

Alcohols, C12-14 (even numbered), ethoxylated (CAS: 68439-50-9)

A Chemical Safety Assessment is not required for this substance (exempted from obligation to register).

16. OTHER INFORMATION

Information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.