



MATERIAL SAFETY DATA SHEET

LAURIC ACID

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Description	Lauric Acid/ Dodecanoic Acid 99% min
CAS Number	143-07-7
EC number	205-582-1
Relevant identified uses of the substance or mixture and uses advised against	No further relevant information available.
Application of the substance / the mixture	Intermediate Additives Chemical intermediate Tanning agent Fragrance Lubricant

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture



corrosion

Eye Dam. 1 H318 Causes serious eye damage.

Label elements

GHS label elements

The substance is classified and labelled according to the Globally Harmonised System (GHS).

Hazard pictograms



GHS05

Signal word Danger



Hazard statements

H318 Causes serious eye damage.

Precautionary statements

P280 Wear eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if

present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterisation: Substances

CAS No. Description

143-07-7 Lauric Acid

Identification number(s)

EC number: 205-582-1

4. FIRST AID MEASURES

Description of first aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

Then consult a doctor.

After swallowing: If symptoms persist consult doctor.

Information for doctor:

Most important symptoms and effects, both acute and delayed

Breathing difficulty

Dizziness

Headache

Coughing

Indication of any immediate medical attention and special treatment needed

No further relevant information available.



5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

Special hazards arising from the substance or mixture

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Environmental precautions: Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling

Keep away from heat and direct sunlight.

Store in cool, dry place in tightly closed receptacles.

Thorough dedusting.

Information about fire - and explosion protection: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

Information about storage in one common storage facility: Store away from oxidising agents.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

DNELs		
Dermal	DNEL	10 mg/kg bw/day (WORKERS)
Inhalative	DNEL	17,632 mg/m ³ (WORKERS)
PNECs		
Water - Fresh Water		0.047 mg/L
Water - Marine Water		0.0047 mg/L
Sediment-Fresh water		4.09 mg/kg
Sediment-Marine Water		0.409 mg/kg
STP		912 mg/L

Additional information: The lists valid during the making were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.

Respiratory protection: Suitable respiratory protective device recommended.

Protection of hands:

- Avoid direct contact with the chemical/ the product/ the preparation by organisational measures.
- Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

Nitrile rubber, **NBR**

Chloroprene rubber, **CR**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

General Information

Appearance:

Form	Solid
Colour	White
Odour	Light
Odour threshold	Not determined
pH-value	Not applicable.
Change in condition	
Melting point/freezing point:	~42-44 °C
Initial boiling point and boiling range:	~225 °C
Flash point	160-165 °C (ISO 2592 OPEN CUP)
Flammability (solid, gas)	Product is not flammable.
Ignition temperature	>250 °C
Decomposition temperature	Not determined.
Auto-ignition temperature	Not determined.
Explosive properties	Product does not present an explosion
Explosion limits:	Not determined.
Lower	



Upper	Not determined.
Vapour pressure at 25 °C	0.00213 hPa
Density at 20 °C	0.49 g/cm ³ (POUR DENSITY)
Relative density	Not determined
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with water at 25 °C:	0.00481 g/l
Partition coefficient: n-octanol/water	Not determined
Viscosity: Dynamic at 52 °C: Kinematic: Other information	7 mPas Not applicable. further relevant information available.

10. STABILITY AND REACTIVITY

Reactivity No further relevant information available.

Chemical stability Stable at environment temperature

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions Reacts with oxidizing agents

Conditions to avoid See Section 7 for information on safe handling

Incompatible materials: See Section 7 for information on safe handling

Hazardous decomposition products:

Irritant gases/vapours

Carbon monoxide and carbon dioxide

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity		
Dermal	LD50	>2,000 mg/kg bw/day (rat) (OECD 434;
Inhalative	LC50	>0.1521 mg/L
LD/LC50 values relevant for classification		
Oral	LD50	>5,000 mg/kg (rat)



Primary irritant effect:

Skin corrosion/irritation No irritant effect.

Serious eye damage/irritation Strong irritant with the danger of severe eye injury.

Respiratory or skin sensitisation No sensitising effects known.

Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

Repeated dose toxicity		
Oral	NOAEL (subchronic)	1,000 mg/kg bw/d (rat) (OECD 422; CAS112-85-6; C22)

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity		
Oral	NOAEL (fertility)	1,000 mg/kg bw/d (rat) (OECD 422; CAS112-85-6; C22)

STOT-single exposure Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity	
EC50 (48h)	3.6 mg/L (daphnia magna) (OECD 202;
LC50 (96h)	5 mg/L (fish) (OECD 203; CAS143-07-7; C12)
NOEC (chronic) (21d)	0.47 mg/L (daphnia magna) (OECD 211; CAS143-07-7)

Persistence and degradability Easily biodegradable

Behaviour in environmental systems:

Bioaccumulative potential Does not accumulate in organisms

Mobility in soil

CAS 334-48-5 (C10); Koc 261.8

CAS143-07-7 (C12); Koc 501.3

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralised.



Results of PBT and vPvB assessment

PBT: No

vPvB: No

Other adverse effects No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation

Must be specially treated adhering to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

UN-Number ADR, ADN, IMDG, IATA	not regulated
UN proper shipping name ADR, ADN, IMDG, IATA	not regulated
Transport hazard class(es) ADR, ADN, IMDG, IATA	not regulated
Packing group ADR, IMDG, IATA	not regulated
Environmental hazards	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
Product name	Fatty Acids, C12+
Pollution category	Y
Ship type	2
UN "Model Regulation"	not regulated



15. REGULATORY INFORMATION

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

GHS label elements

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Hazard pictograms



GHS05

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Hazard statements

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Precautionary statements

P280 Wear eye protection / face protection.

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Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed.

National regulations:

Other regulations, limitations and prohibitive regulations

Positive Country Substance Listing

USA (TSCA), Canada (DSL), Europe (EINECS), Japan (ENCS), Australia (AICS), Korea (ECL), China (IECSC), Philippines (PICCS), New Zealand (NZIOC), Taiwan (CSNN)

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Eye Dam. 1: Serious eye damage/eye irritation – Category 1