

# SAFETY DATA SHEETS



Version: 1.0  
Creation Date: November 12, 2024  
Revision Date: September 05, 2024

## SECTION 1: Identification

### 1.1 GHS Product identifier

Product name C12 LAURIC

### 1.2 Other means of identification

Product number -  
Other names Dodecanoic acid, Lauric Acid, C12 Fatty Acid, n-Dodecanoic acid

### 1.3 Recommended use of the chemical and restrictions on use

Identified uses Laboratory chemicals, Industrial & for professional use only.  
Uses advised against no data available

### 1.4 Supplier's details

Company NUOL Green Chemistry  
Address Heron Road, 17936 – Little Falls/MS - USA  
Telephone -----

### 1.5 Emergency phone number

Emergency phone number -----  
Service hours Monday to Friday, 9am-5pm (Standard time zone: CST / UTC-6).

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Serious eye damage, Category 1, H318

### 2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word Danger  
Hazard statement(s) H318 Causes serious eye damage.

Precautionary statement(s)

Prevention Wash hands and face thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/  
Response If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Storage  
Disposal Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### 2.3 Other hazards which do not result in classification

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration	Chemical Formula
C12 Lauric	Dodecanoic acid, C12 Fatty Acid	143-07-7	205-582-1	<=100%	C12H24O2

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

#### **If inhaled**

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical. Consult a doctor.

#### **Following skin contact**

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

#### **Following eye contact**

Rinse with pure water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

#### **Following ingestion**

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. After swallowing: immediately make victim drink water (two glasses at most). Call a doctor or Poison Control Center immediately.

### **4.2 Most important symptoms/effects, acute and delayed**

no data available

### **4.3 Indication of immediate medical attention and special treatment needed, if necessary**

no data available

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## **SECTION 5: Fire-fighting measures**

### **5.1 Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>) Foam Dry powder.

### **5.2 Specific hazards arising from the chemical**

Carbon oxides

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

### **5.3 Special protective actions for fire-fighters**

Wear self-contained breathing apparatus for firefighting if necessary. Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved people should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so. When extinguishing fire, be sure to wear personal protective equipment.

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## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### **6.2 Environmental precautions**

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

### **6.3 Methods and materials for containment and cleaning up**

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Soak up with inert absorbent material and dispose of as hazardous waste. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Handling in a well-ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools.

### **7.2 Conditions for safe storage, including any incompatibility**

Do not contaminate water, food, or feed by storage. Keep container tightly sealed when not in use. Store only in original container in a dry place inaccessible to children and pets. Storage class (TRGS 510): 11: Combustible Solids.

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## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Occupational Exposure limit values**

no data available

#### **Biological limit values**

no data available

### **8.2 Appropriate engineering controls**

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area. Also install safety shower and eye bath. Wash hands before breaks and at the end of workday.

### **8.3 Individual protection measures, such as personal protective equipment (PPE)**

#### **Eye/face protection**

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

#### Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Thermal hazards

no data available

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## SECTION 9: Physical and chemical properties

<b>Physical state (20°C)</b>	Solid (Powder)
<b>Form</b>	Clear
<b>Colour</b>	white, to, light yellow
<b>Odour</b>	weak characteristic odour
<b>Melting point/freezing point</b>	43 - 45 °C
<b>Boiling point or initial boiling point and boiling range</b>	299 °C at 1.013 hPa
<b>Flammability</b>	no data available
<b>Lower and upper explosion limit/flammability limit</b>	Lower explosion limit: 0,6 %(V)
<b>Flash point</b>	176 °C - closed cup
<b>Auto-ignition temperature</b>	> 250 °C
<b>Decomposition temperature</b>	no data available
<b>pH</b>	no data available
<b>Kinematic viscosity</b>	Viscosity, kinematic: No data available Viscosity, dynamic: 7 mPa.s at 50 °C
<b>Solubility</b>	Soluble in water - 0,058 g/l at 20 °C
<b>Partition coefficient n-octanol/water</b>	Log Kow = 3.42
<b>Vapour pressure</b>	0,15 hPa at 100 °C < 0,1 hPa at 25 °C - (Lit.)
<b>Density and/or relative density</b>	0,883 g/cm <sup>3</sup> at 50 °C
<b>Relative vapour density</b>	6,91
<b>Particle characteristics</b>	no data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### 10.2 Chemical stability

Stable under proper conditions.

### 10.3 Possibility of hazardous reactions

Violent reactions possible with: Bases, Strong oxidizing agents and Strong reducing agents

### 10.4 Conditions to avoid

Strong heating.

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### Acute toxicity

- Oral: LD50 Oral - Rat - male and female - > 5.000 mg/kg
- Inhalation: LC50 Inhalation - Rat - male and female - 4 h - > 0,162 mg/l - vapor
- Dermal: Rabbit - male and female - > 2.000 mg/kg

### Skin corrosion/irritation

Skin – Rabbit - Result: No skin irritation - 4 h

### Serious eye damage/irritation

Eyes – Rabbit - Result: Causes serious eye damage.

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster lung cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Remarks: The value is given in analogy to the following substances: Docosanoic acidTest

Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Remarks: The value is given in analogy to the following substances: Decanoic Acid.

#### **Carcinogenicity**

no data available

#### **Reproductive toxicity**

no data available

#### **STOT-single exposure**

no data available

#### **STOT-repeated exposure**

no data available

#### **Aspiration hazard**

no data available

#### **Additional Information: Endocrine disrupting properties**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU). 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male and female - Oral - 42 Days - NOAEL (No observed adverse effect level) - 1.000 mg/kg. *Remarks:* The value is given in analogy to the following substances: Docosanoic acid. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

- Toxicity to fish: semi-static test LC50 - *Oryzias latipes* (Orange-red killifish) - 5 mg/l - 96 h
- Toxicity to daphnia and other aquatic invertebrates: semi-static test EC50 - *Daphnia magna* (Water flea) - 3,6 mg/l - 48h
- Toxicity to algae: static test ErC50 - *Pseudokirchneriella subcapitata* - > 7,6 mg/l - 72h
- Toxicity to microorganisms: static test EC10 - *Pseudomonas putida* - > 1.000 mg/l - 30 min

### **12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 30 d. Result: 86 % - Readily biodegradable. (OECD Test Guideline 301D)

### **12.3 Bioaccumulative potential**

Bioaccumulation *Danio rerio* (zebra fish) - 28 d at 21,5 °C - 2 mg/l(lauric acid). Bioconcentration factor (BCF): 234 – 249

### **12.4 Mobility in soil**

no data available

### **12.5 Results of PBT and vPvB 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.

### **12.6 Endocrine disrupting properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### **12.7 Other adverse effects**

no data available

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## **SECTION 13: Disposal considerations**

### **13.1 Disposal methods**

#### **Product**

no data available

#### **Contaminated packaging**

no data available

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## **SECTION 14: Transport information**

### **14.1 UN Number**

ADR/RID: no data available

IMDG: no data available

IATA: no data available

#### 14.2 UN Proper Shipping Name

ADR/RID: not dangerous goods

IMDG: not dangerous goods

IATA: not dangerous goods

#### 14.3 Transport hazard class(es)

ADR/RID: no data available

IMDG: no data available

IATA: no data available

#### 14.4 Packing group, if applicable

ADR/RID: no data available

IMDG: no data available

IATA: no data available

#### 14.5 Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

#### 14.6 Special precautions for user

no data available

#### 14.7 Transport in bulk according to IMO instruments

no data available

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### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number	Chemical Formula
C12 Lauric	Dodecanoic acid, C12 Fatty Acid	143-07-7	205-582-1	C <sub>12</sub> H <sub>24</sub> O <sub>2</sub>
United States Toxic Substances Control Act (TSCA) Inventory			Listed	

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

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### SECTION 16: Other information

#### Information on revision

Creation Date November 12, 2024  
Revision Date September 05, 2025

Full text of H-Statements referred to under sections 2 and 3: **H318 – Causes serious eye damage.**

#### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

#### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>