

LAURIC ACID

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SECTION 1: IDENTIFICATION

1.1 GHS Product identifier:

LAURIC ACID
Synonyms: Dodecanoic Acid; n-Dodecanoic Acid; C12 Fatty Acid
CAS: 143-07-7

Other means of identification:

Not relevant

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Raw material for soap and surfactant manufacture, cosmetic and personal-care ingredient, ester and emulsifier production, lubricant additive intermediate. For industrial user only.
Uses advised against: All uses not specified in this section or in section 7.3.

1.3 Supplier's details:

SURAJ CHEMICALS
No 92, Govindappa Naicken Street, Shiva Complex, Chennai – 600001, Tamil Nadu, India
Tel: +91 - 7092722822, +91 - 9840284032 / +91 - 44 - 25393652, 42130281
Email: sales@surajchemicals.com | Website: www.surajchemicals.com
GST No: 33ACEPV8190L1ZZ

1.4 Emergency phone number:

Emergency Contact No: +91 - 7092722822, +91 - 9840284032

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GHS:
Classification of this product has been carried out in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Based on available data, this substance does not meet the classification criteria for any physical, health or environmental hazard class.

Not classified	This substance/mixture does not meet the criteria for classification under GHS, based on available data.
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2.2 GHS label elements, including precautionary statements:

GHS: No signal word / pictogram required

Hazard statements:

None assigned.

Precautionary statements:

P280: Wear protective gloves/eye protection where repeated or prolonged contact with molten material is expected.
P501: Dispose of contents/container in accordance with local regulations.

2.3 Other hazards which do not result in classification:

Fine powder/flaked material may create a combustible dust hazard in the presence of an ignition source (see sections 7 and 10). Molten material may cause thermal burns. Does not meet the criteria for PBT or vPvB.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Chemical description: Saturated C12 fatty acid (dodecanoic acid)
In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration
CAS: 143-07-7	Lauric Acid — Not classified	≥98%

To obtain more information on the hazards of the substances, consult sections 11, 12 and 16.

3.2 Mixtures:

Non-applicable – single substance product.

SECTION 4: FIRST AID MEASURES

4.1 Description of necessary first-aid measures:

Generally regarded as non-hazardous under normal conditions of use.

By inhalation:

Not a normal route of exposure. If dust is inhaled and irritation occurs, remove to fresh air.

By skin contact:

No action normally required. If molten product contacts skin, cool rapidly with water and seek medical attention for burns.

By eye contact:

Rinse with plenty of water for a few minutes. If irritation persists, seek medical advice.

By ingestion/aspiration:

Rinse mouth with water. Not expected to require first aid in small quantities.

4.2 Most important symptoms/effects, acute and delayed:

No significant acute or delayed effects expected under normal use. See section 11.

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

Not relevant

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media:

Suitable: Water spray/fog, foam, dry chemical powder, carbon dioxide.

Unsuitable: High-pressure water/air jet on dust/powder (may disperse combustible dust cloud).

5.2 Specific hazards arising from the chemical:

Combustible solid. Finely divided powder may form a combustible dust cloud in air in the presence of an ignition source. Combustion produces oxides of carbon.

5.3 Special protective actions for fire-fighters:

Evacuate non-essential personnel. Use self-contained breathing apparatus and full protective clothing in enclosed spaces. Cool exposed containers with water spray.

Additional provisions:

Avoid creating dust clouds near ignition sources. Contain fire-fighting water run-off.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Avoid generating dust. Avoid slipping on spilled molten material. Use PPE as per section 8.

For emergency responders:

No special equipment required beyond standard PPE.

6.2 Environmental precautions:

Prevent large spills from entering drains, watercourses or soil.

6.3 Methods and materials for containment and cleaning up:

Sweep up/collect flakes or powder, avoiding dust generation, and place in a labelled container for disposal or reuse.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A. General precautions for safe use:

Avoid generating and accumulating dust; minimise dust-cloud formation in the presence of ignition sources (combustible dust precaution). Avoid contact with strong oxidisers and strong bases.

B. Technical recommendations for the prevention of fires and explosions:

Use earthed/bonded equipment when handling powder in bulk to control static electricity; avoid open flames near dust clouds.

C. Technical recommendations on general occupational hygiene:

Wash hands after handling.

D. Technical recommendations to prevent environmental risks:

Avoid release to drains and watercourses.

7.2 Conditions for safe storage, including any incompatibilities:

A. Specific storage requirements:

Storage Temp.	Below 30°C, cool and dry
Maximum time	24 Months in original closed container

B. General conditions for storage:

Store in a cool, dry, well-ventilated place away from strong oxidising agents, strong bases and direct heat.

7.3 Specific end use(s):

Except for the instructions already specified, it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

No specific occupational exposure limit has been established for lauric acid under the Factories Act, 1948, as amended. General guidance for inert/nuisance dust may be referred to where applicable:

Identification	Occupational Exposure Limit Type	Value
Particulates (not otherwise classified), reference	Time Weighted average concentration (8 hrs)	10 mg/m³ (total dust, general guidance)

8.2 Appropriate engineering controls:

General ventilation is normally adequate; local exhaust ventilation recommended where dust is generated.

B. Respiratory protection:

Particulate mask (FFP1/FFP2) recommended where dust is generated.

C. Specific protection for the hands:

Protective gloves recommended for handling molten/hot material.

D. Eye and face protection:

Safety glasses recommended where dust is generated or molten material is handled.

E. Bodily protection:

Standard industrial workwear; heat-resistant gloves/apron when handling molten product.

F. Additional emergency measures:

Eyewash station recommended in processing areas.

Environmental exposure controls:

Avoid environmental spillage of both the product and its container.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	
Physical state at 20°C	Solid (crystalline flakes/powder)
Appearance	White to pale yellow crystalline solid
Color	White / pale yellow
Odor	Faint, characteristic fatty acid odor
Odour threshold	Not established
Volatility	
Boiling point at atmospheric pressure	~298°C (may decompose)
Vapour pressure at 20°C	Negligible
Evaporation rate at 20°C	Negligible

Product Description	
Density / Relative density at 20°C	~0.88 – 0.89 g/cm³
pH (1% aqueous dispersion)	~5 – 6 (practically insoluble, weak acid)
Solubility in water at 20°C	Practically insoluble; soluble in alcohols, ethers
Melting point/freezing point	43 – 46°C
Flammability	
Flash Point	~190°C (typical)
Flammability (solid, gas)	Combustible solid; not classified Flam. Sol.
Autoignition temperature	Typical value — refer to current specification sheet
Lower / Upper flammability limit	Not established
Particle Characteristics	
Median equivalent diameter	Grade dependent (flake/powder)

9.2 Other information:

Explosive properties	Not relevant; combustible dust applies in fine powder form – see section 10
Oxidising properties	Not relevant
Corrosive to metals	Non-corrosive
Heat of combustion	Typical value — refer to current specification sheet

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

Reacts with strong bases (forms soap/saponification) and may react with strong oxidising agents. Fine powder may form a combustible dust cloud with air near an ignition source.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Exothermic reaction with strong alkalis (saponification); otherwise hazardous reactions are not expected.

10.4 Conditions to avoid:

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Avoid dust-cloud formation near ignition sources	Avoid prolonged heating/open flame	No special measures	No special measures

10.5 Incompatible materials:

Strong Oxidisers	Strong Bases
Avoid contact	Avoid contact – exothermic saponification

10.6 Hazardous decomposition products:

On combustion: carbon monoxide, carbon dioxide and smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Lauric acid is a naturally occurring fatty acid widely present in coconut and palm kernel oil and is regarded as having very low acute and chronic toxicity.

A. Ingestion (acute effect):

Practically non-toxic; a common dietary fatty acid.

B. Inhalation (acute effect):

Not a normal route of exposure; dust may cause mild irritation.

C. Contact with skin and eyes (acute effect):

Non-irritating to mildly irritating under normal conditions of use.

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity):

Classification criteria are not met based on available data. IARC: Not classified.

E. Sensitizing effects:

Classification criteria for skin or respiratory sensitisation are not met based on available data.

F/G. Specific target organ toxicity (STOT):

Classification criteria are not met based on available data.

H. Aspiration hazard:

Classification criteria are not met based on available data.

Product-specific toxicological information:

Identification	Acute Toxicity	Genus
Lauric Acid CAS: 143-07-7	LD50 oral: >10000 mg/kg	Rat
	LD50 dermal: >2000 mg/kg	Rabbit

SECTION 12: ECOLOGICAL INFORMATION

Not classified as hazardous to the aquatic environment.

12.1 Toxicity:

Acute Toxicity	Species	Genus
LL/EL50 >10 mg/L, typical value	Typical value — refer to current specification sheet	Fish / Crustacean

12.2 Persistence and degradability:

Readily biodegradable (natural fatty acid).

12.3 Bioaccumulative potential:

Not established as bioaccumulative; rapidly metabolised in biological systems.

12.4 Mobility in soil:

Koc	Henry	Dry Soil	Moist Soil
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Moderate to high	Low	Low mobility	Low mobility
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12.5 Results of PBT and vPvB assessment:

Does not meet PBT/vPvB criteria.

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Dispose of as general industrial solid waste or via an authorised waste contractor in accordance with local regulations. Do not discharge to drains or watercourses in bulk.
Refer to national and local regulations on waste management.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR 2023 / RID 2023):

14.1 UN number	Not assigned – non-hazardous for transport
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	Non-applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by sea (IMDG 41-22):

14.1 UN number	Not assigned – non-hazardous for transport
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	Non-applicable
14.5 Marine pollutant	No
14.6 Special precautions for user	Non-applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by air (IATA/ICAO 2024):

14.1 UN number	Not assigned – non-hazardous for transport
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	Non-applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

SECTION 15: REGULATORY INFORMATION

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

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of local circumstances, in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product. Material intended for cosmetic/food-grade use should additionally conform to the applicable pharmacopoeial or cosmetic-grade specification.

Other legislation:

Manufacture, Storage and Import of Hazardous Chemicals Rules 1989
The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Texts of the legislative phrases mentioned in sections 2 and 3:

Not classified – no hazard statements assigned.

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

The United Nations Economic Commission for Europe (UNECE); publicly available GHS classification and physical-constant references for CAS 143-07-7.

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association | ICAO: International Civil Aviation Organisation | LD50: Lethal Dose 50 | Koc: Partition coefficient of organic carbon | IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within Suraj Chemicals' awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET