# 林缘香料

# Safety Data Sheet MSDS / SDS

# According to the UN GHS revision 9

Version: 1.0 Creation Date: July 15, 2019 Revision Date: July 15, 2019

#### **SECTION 1: Identification**

1.1 GHS Product identifier

 $MF:C_{14}H_{28}O_2$ 

**Product name** Myristic acid

1.2 Other means of identification

Product number -

Other names triacontyl alcohol; Nutron; 3H-myristic acid

1.3 Recommended use of the chemical and restrictions on use

**Identified uses** Industrial and scientific research use.

Uses advised against no data available

1.4 Supplier's details

Company Jiangxi LinQ Spices Co.,Ltd.

Address Building15#,Xinghai Gardon,TianLi Square,QingYuan District,

Ji'An City, JiangXi Province

**Telephone** (+86)0796-8287629

## **SECTION 2: Hazard identification**

#### 2.1 Classification of the substance or mixture

Not classified.

#### 2.2 GHS label elements, including precautionary statements

Pictogram(s)No symbol.Signal wordNo signal word

Hazard statement(s) none

**Precautionary statement(s)** 

PreventionnoneResponsenoneStoragenoneDisposalnone

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

no data available

# **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Myristic acid	Myristic acid	544-63-8	208-875-2	100%

#### **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.

#### 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. Consult a doctor.

#### Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

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

SYMPTOMS: Symptoms of exposure to this compound may include irritation of the skin and eyes. ACUTE/CHRONIC HAZARDS: This compound may cause irritation of the skin and eyes. When heated to decomposition it emits acrid smoke and fumes. (NTP, 1992)

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

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Organic acids and related compounds

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

## 5.1 Suitable extinguishing media

Fires involving this material can be controlled with a dry chemical, carbon dioxide or Halon extinguisher. (NTP, 1992)

#### 5.2 Specific hazards arising from the chemical

This chemical is probably combustible. (NTP, 1992)

# 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

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

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

Avoid dust formation. 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. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

# **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. Prevent fire caused by electrostatic discharge steam.

#### 7.2 Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

# **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.

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

#### Eve/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.

#### Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

#### Thermal hazards

no data available

# **SECTION 9: Physical and chemical properties and safety characteristics**

Physical state PHYSICAL DESCRIPTION: Oily white crystalline solid. (NTP, 1992) 体绿香料

Colour Oily, white, crystalline solid

Odour The odor should be faint with no rancidity.

Melting point/freezing point 255°C(lit.)

Boiling point or initial boiling 102°C/14mmHg(lit.)

point and boiling range

**Flammability** no data available Lower and upper explosion no data available

limit/flammability limit

Flash point 91°C(lit.)

Auto-ignition temperature no data available **Decomposition temperature** no data available no data available pH

Kinematic viscosity 5.83 mPa sec at 70 deg C

less than 1 mg/mL at 64° F (NTP, 1992) **Solubility** 

Partition coefficient n-

octanol/water

log Kow = 6.11

1 mm Hg at 288° F; 5 mm Hg at 345° F; 760 mm Hg at 604° F (NTP, Vapour pressure

1992)

Density and/or relative

density

0.898 g/cm3

Relative vapour density no data available **Particle characteristics** no data available

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

no data available

#### 10.2 Chemical stability

no data available

#### 10.3 Possibility of hazardous reactions

Combustible TETRADECANOIC ACID is a carboxylic acid. Carboxylic acids donate hydrogen ions if a base is present to accept them. They react in this way with all bases, both organic (for example, the amines) and inorganic. Their reactions with bases, called "neutralizations", are accompanied by the evolution of

substantial amounts of heat. Neutralization between an acid and a base produces water plus a salt. Carboxylic acids with six or fewer carbon atoms are freely or moderately soluble in water; those with more than six carbons are slightly soluble in water. Soluble carboxylic acid dissociate to an extent in water to yield hydrogen ions. The pH of solutions of carboxylic acids is therefore less than 7.0. Many insoluble carboxylic acids react rapidly with aqueous solutions containing a chemical base and dissolve as the neutralization generates a soluble salt. Carboxylic acids in aqueous solution and liquid or molten carboxylic acids can react with active metals to form gaseous hydrogen and a metal salt. Such reactions occur in principle for solid carboxylic acids as well, but are slow if the solid acid remains dry. Even "insoluble' carboxylic acids may absorb enough water from the air and dissolve sufficiently in it to corrode or dissolve iron, steel, and aluminum parts and containers. Carboxylic acids, like other acids, react with cyanide salts to generate gaseous hydrogen cyanide. The reaction is slower for dry, solid carboxylic acids. Insoluble carboxylic acids react with solutions of cyanides to cause the release of gaseous hydrogen cyanide. Flammable and/or toxic gases and heat are generated by the reaction of carboxylic acids with diazo compounds, dithiocarbamates, isocyanates, mercaptans, nitrides, and sulfides. Carboxylic acids, especially in aqueous solution, also react with sulfites, nitrites, thiosulfates (to give H2S and SO3), dithionites (SO2), to generate flammable and/or toxic gases and heat. Their reaction with carbonates and bicarbonates generates a harmless gas (carbon dioxide) but still heat. Like other organic compounds, carboxylic acids can be oxidized by strong oxidizing agents and reduced by strong reducing agents. These reactions generate heat. A wide variety of products is possible. Like other acids, carboxylic acids may initiate polymerization reactions; like other acids, they often catalyze (increase the rate of) chemical reactions.

#### 10.4 Conditions to avoid

no data available

#### 10.5 Incompatible materials

no data available

#### 10.6 Hazardous decomposition products

When heated to decomposition it emits acrid smoke and irritating fumes.

# **SECTION 11: Toxicological information**

#### Acute toxicity

• Oral: LD50 Rat oral >10000 mg/kg C12: 2.7%, C14 95.4%, C16 1.9%

Inhalation: no data availableDermal: no data available

#### Skin corrosion/irritation

no data available

#### Serious eye damage/irritation

no data available

#### Respiratory or skin sensitization

no data available

#### Germ cell mutagenicity

no data available

#### 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

# **SECTION 12: Ecological information**

# 12.1 Toxicity



- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

## 12.2 Persistence and degradability

AEROBIC: Myristic acid reached 2% of its theoretical BOD over 5 days using a sewage inoculum(1). Fatty acids above 7 to 11 carbon atoms showed increased resistance to oxidation in Warburg respirometer tests using activated sludge from three different sources(2). In Warburg respirometer tests using an activated sludge seed, myristic acid, present at a concn of 500 ppm, reached 0.6, 1.7, and 3.7% of its theoretical oxygen demand after 6, 12, and 24 hours incubation, respectively(3). In Warburg tests using an unacclimated activated sludge inoculum, myristic acid, present as the sodium salt, was observed to biodegrade with half-lives of 13, 20, and 30 hours at 30, 25, and 20 deg C, respectively(4).

#### 12.3 Bioaccumulative potential

An estimated BCF of 56 was calculated in fish for myristic acid(SRC), using a log Kow of 6.11(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is moderate, provided the compound is not metabolized by the organism(SRC).

#### 12.4 Mobility in soil

The Koc of myristic acid is estimated as 50,000 fro the free acid(SRC), using a log Kow of 6.11(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that undissociated myristic acid is expected to be immobile in soil. The pKa of myristic acid is 4.90(4), indicating that this compound will exist almost entirely in anion form in the environment and anions generally do not adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(5).

#### 12.5 Other adverse effects

no data available

## **SECTION 13: Disposal considerations**

# 13.1 Disposal methods

#### **Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

# **SECTION 14: Transport information**

#### 14.1 UN Number

ADR/RID: UN1479 (For reference only, please check.)

IMDG: UN1479 (For reference only, please check.)

IATA: UN1479 (For reference only, please check.)

#### 14.2 UN Proper Shipping Name

ADR/RID: OXIDIZING SOLID,
N.O.S. (For reference only, please check.)

IMDG: OXIDIZING SOLID,
N.O.S. (For reference only, please check.)

IATA: OXIDIZING SOLID,
N.O.S. (For reference only, please check.)

#### 14.3 Transport hazard class(es)

ADR/RID: 5.1 (For reference only, please check.)

IMDG: 5.1 (For reference only, please check.)

IATA: 5.1 (For reference only, please check.)

#### 14.4 Packing group, if applicable

ADR/RID: I (For reference only, please check.)

IMDG: I (For reference only, please check.)

IATA: I (For reference only, please check.)

#### 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

# **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
Myristic acid	Myristic acid	544-63-8	208-875-2
<b>European Inventory of</b>	Listed.		
EC Inventory	Listed.		
<b>United States Toxic Sul</b>	Listed.		
China Catalog of Haza	Not Listed.		
New Zealand Inventory	Listed.		
Philippines Inventory of	Listed.		
Vietnam National Cher	Listed.		
Chinese Chemical Inve	Listed.		
<b>Korea Existing Chemic</b>	Listed.		

## **SECTION 16: Other information**

#### Information on revision

**Creation Date Revision Date**July 15, 2019
July 15, 2019

#### 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
- CÂMEO 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/

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