

## SAFETY DATA SHEET

Creation Date 23-Sep-2009

Revision Date 14-Feb-2020

Revision Number 3

### 1. Identification

**Product Name** Oleic acid

**Cat No. :** 31997

**CAS-No** 112-80-1  
**Synonyms** cis-9-Octadecenoic acid

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.  
**Details of the supplier of the safety data sheet**

**Company**

Alfa Aesar  
Thermo Fisher Scientific Chemicals, Inc.  
30 Bond Street  
Ward Hill, MA 01835-8099  
Tel: 800-343-0660  
Fax: 800-322-4757  
**Email:** tech@alfa.com  
www.alfa.com

**Emergency Telephone Number**

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660.  
After normal business hours, call Carechem 24 at (866) 928-0789.

### 2. Hazard(s) identification

**Classification**

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the  
Globally Harmonized System (GHS)

**Label Elements**

**Hazard Statements**

**Precautionary Statements**

**Hazards not otherwise classified (HNOC)**

None identified

### 3. Composition/Information on Ingredients

| Component  | CAS-No   | Weight % |
|------------|----------|----------|
| Oleic acid | 112-80-1 | >95      |

#### 4. First-aid measures

|                                            |                                                                                                                   |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>General Advice</b>                      | If symptoms persist, call a physician.                                                                            |
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.   |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. |
| <b>Inhalation</b>                          | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.      |
| <b>Ingestion</b>                           | Clean mouth with water and drink afterwards plenty of water.                                                      |
| <b>Most important symptoms and effects</b> | None reasonably foreseeable.                                                                                      |
| <b>Notes to Physician</b>                  | Treat symptomatically                                                                                             |

#### 5. Fire-fighting measures

|                                         |                                                                                       |
|-----------------------------------------|---------------------------------------------------------------------------------------|
| <b>Suitable Extinguishing Media</b>     | Water spray, carbon dioxide (CO <sub>2</sub> ), dry chemical, alcohol-resistant foam. |
| <b>Unsuitable Extinguishing Media</b>   | No information available                                                              |
| <b>Flash Point</b>                      | 189 °C / 372.2 °F                                                                     |
| <b>Method -</b>                         | No information available                                                              |
| <b>Autoignition Temperature</b>         | 363 °C / 685.4 °F                                                                     |
| <b>Explosion Limits</b>                 |                                                                                       |
| <b>Upper</b>                            | No data available                                                                     |
| <b>Lower</b>                            | No data available                                                                     |
| <b>Sensitivity to Mechanical Impact</b> | No information available                                                              |
| <b>Sensitivity to Static Discharge</b>  | No information available                                                              |

#### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

#### Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

#### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### NFPA

Health  
0

Flammability  
1

Instability  
1

Physical hazards  
N/A

#### 6. Accidental release measures

|                                  |                                                                             |
|----------------------------------|-----------------------------------------------------------------------------|
| <b>Personal Precautions</b>      | Use personal protective equipment as required. Ensure adequate ventilation. |
| <b>Environmental Precautions</b> | Should not be released into the environment.                                |

**Methods for Containment and Clean Up** Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

|                 |                                                                                                                                                               |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b> | Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Do not get in eyes, on skin, or on clothing. |
| <b>Storage</b>  | To maintain product quality: Store in freezer. Keep container tightly closed in a dry and well-ventilated place. Store under an inert atmosphere.             |

## 8. Exposure controls / personal protection

|                                      |                                                                                                                                                                                                                                                   |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exposure Guidelines</b>           | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.                                                                                                     |
| <b>Engineering Measures</b>          | Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.                                                                                                 |
| <b>Personal Protective Equipment</b> |                                                                                                                                                                                                                                                   |
| <b>Eye/face Protection</b>           | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.                                                                       |
| <b>Skin and body protection</b>      | Wear appropriate protective gloves and clothing to prevent skin exposure.                                                                                                                                                                         |
| <b>Respiratory Protection</b>        | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| <b>Hygiene Measures</b>              | Handle in accordance with good industrial hygiene and safety practice.                                                                                                                                                                            |

## 9. Physical and chemical properties

|                                               |                            |
|-----------------------------------------------|----------------------------|
| <b>Physical State</b>                         | Liquid                     |
| <b>Appearance</b>                             | Colorless                  |
| <b>Odor</b>                                   | fatty odor                 |
| <b>Odor Threshold</b>                         | No information available   |
| <b>pH</b>                                     | No information available   |
| <b>Melting Point/Range</b>                    | 13 °C / 55.4 °F            |
| <b>Boiling Point/Range</b>                    | 360 °C / 680 °F @ 760 mmHg |
| <b>Flash Point</b>                            | 189 °C / 372.2 °F          |
| <b>Evaporation Rate</b>                       | No information available   |
| <b>Flammability (solid,gas)</b>               | Not applicable             |
| <b>Flammability or explosive limits</b>       |                            |
| Upper                                         | No data available          |
| Lower                                         | No data available          |
| <b>Vapor Pressure</b>                         | 1 mmHg @ 176 °C            |
| <b>Vapor Density</b>                          | 9.7                        |
| <b>Specific Gravity</b>                       | 0.890                      |
| <b>Solubility</b>                             | Insoluble in water         |
| <b>Partition coefficient; n-octanol/water</b> | No data available          |
| <b>Autoignition Temperature</b>               | 363 °C / 685.4 °F          |
| <b>Decomposition Temperature</b>              | > 80°C                     |
| <b>Viscosity</b>                              | 39.1 mPa.s at 20 °C        |
| <b>Molecular Formula</b>                      | C18 H34 O2                 |
| <b>Molecular Weight</b>                       | 282.46                     |

## 10. Stability and reactivity

|                                         |                                                                         |
|-----------------------------------------|-------------------------------------------------------------------------|
| <b>Reactive Hazard</b>                  | None known, based on information available                              |
| <b>Stability</b>                        | Air sensitive.                                                          |
| <b>Conditions to Avoid</b>              | Incompatible products. Excess heat. Exposure to light. Exposure to air. |
| <b>Incompatible Materials</b>           | Strong oxidizing agents                                                 |
| <b>Hazardous Decomposition Products</b> | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )                 |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.                                |
| <b>Hazardous Reactions</b>              | None under normal processing.                                           |

## 11. Toxicological information

### Acute Toxicity

#### Product Information Component Information

| Component  | LD50 Oral              | LD50 Dermal | LC50 Inhalation |
|------------|------------------------|-------------|-----------------|
| Oleic acid | LD50 = 25 g/kg ( Rat ) | Not listed  | Not listed      |

**Toxicologically Synergistic Products** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                        |                                                                                          |
|------------------------|------------------------------------------------------------------------------------------|
| <b>Irritation</b>      | No information available                                                                 |
| <b>Sensitization</b>   | No information available                                                                 |
| <b>Carcinogenicity</b> | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Component  | CAS-No   | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|------------|----------|------------|------------|------------|------------|------------|
| Oleic acid | 112-80-1 | Not listed | Not listed | Not listed | Not listed | Not listed |

|                                 |                           |
|---------------------------------|---------------------------|
| <b>Mutagenic Effects</b>        | No information available  |
| <b>Reproductive Effects</b>     | No information available. |
| <b>Developmental Effects</b>    | No information available. |
| <b>Teratogenicity</b>           | No information available. |
| <b>STOT - single exposure</b>   | None known                |
| <b>STOT - repeated exposure</b> | None known                |

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

### Ecotoxicity

| Component  | Freshwater Algae | Freshwater Fish                                       | Microtox   | Water Flea |
|------------|------------------|-------------------------------------------------------|------------|------------|
| Oleic acid | Not listed       | LC50: = 205 mg/L, 96h static<br>(Pimephales promelas) | Not listed | Not listed |

**Persistence and Degradability** May persist

**Bioaccumulation/ Accumulation** No information available.

**Mobility** . Is not likely mobile in the environment due its low water solubility.

| Component  | log Pow |
|------------|---------|
| Oleic acid | 7.73    |

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

**DOT** Not regulated  
**TDG** Not regulated  
**IATA** Not regulated  
**IMDG/IMO** Not regulated

### 15. Regulatory information

#### United States of America Inventory

| Component  | CAS-No   | TSCA | TSCA Inventory notification -<br>Active/Inactive | TSCA - EPA Regulatory<br>Flags |
|------------|----------|------|--------------------------------------------------|--------------------------------|
| Oleic acid | 112-80-1 | X    | ACTIVE                                           | -                              |

**Legend:**

**TSCA** - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA 12(b)** - Notices of Export Not applicable

#### International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

| Component  | CAS-No   | DSL | NDL | EINECS    | PICCS | ENCS | AICS | IECSC | KECL     |
|------------|----------|-----|-----|-----------|-------|------|------|-------|----------|
| Oleic acid | 112-80-1 | X   | -   | 204-007-1 | X     | X    | X    | X     | KE-26450 |

#### U.S. Federal Regulations

**SARA 313** Not applicable

**SARA 311/312 Hazard Categories** See section 2 for more information

**CWA (Clean Water Act)** Not applicable

**Clean Air Act** Not applicable

**OSHA** - Occupational Safety and Health Administration Not applicable

**CERCLA** Not applicable

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Component  | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|------------|---------------|------------|--------------|----------|--------------|
| Oleic acid | -             | -          | X            | -        | X            |

**U.S. Department of Transportation**

Reportable Quantity (RQ): N  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

## 16. Other information

**Prepared By** Health, Safety and Environmental Department  
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www.alfa.com

**Creation Date** 23-Sep-2009  
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**Print Date** 14-Feb-2020  
**Revision Summary** SDS authoring systems update, replaces ChemGes SDS No. 112-80-1/2.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**