

## SAFETY DATA SHEET

Creation Date 26-Sep-2009

Revision Date 24-Dec-2021

Revision Number 4

### 1. Identification

**Product Name** Undecylenic acid

**Cat No. :** AC154490000; AC154490025; AC154490050; AC154492500;  
AC154495000

**CAS No** 112-38-9  
**Synonyms** 10-Undecenoic 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

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Emergency Telephone Number** For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                                   |            |
|-----------------------------------|------------|
| Skin Corrosion/Irritation         | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Combustible dust                  | Yes        |

#### Label Elements

##### **Signal Word**

Warning

##### **Hazard Statements**

May form combustible dust concentrations in air  
Causes skin irritation

Causes serious eye irritation

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

**Skin**

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

**Storage**

Store in a well-ventilated place. Keep container tightly closed

**Hazards not otherwise classified (HNOC)**

Harmful to aquatic life with long lasting effects

### 3. Composition/Information on Ingredients

| Component          | CAS No   | Weight % |
|--------------------|----------|----------|
| 10-Undecenoic acid | 112-38-9 | >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. Get medical attention.                       |
| <b>Inhalation</b>                          | Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.                             |
| <b>Ingestion</b>                           | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.           |
| <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>                    | 148 °C / 298.4 °F   |

|   |                          |
|---|--------------------------|
| <b>Method -</b>                         | No information available |
| <b>Autoignition Temperature</b>         | 275 °C / 527 °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**

Dust can form an explosive mixture with air.

**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**  
2

**Flammability**  
1

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

|   |  |
|---|--|
| <b>Personal Precautions</b>                 | Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.  |
| <b>Environmental Precautions</b>            | Should not be released into the environment. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage. |
| <b>Methods for Containment and Clean Up</b> | Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.   |

## 7. Handling and storage

|                 |   |
|-----------------|---|
| <b>Handling</b> | Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation. |
| <b>Storage.</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Bases. Reducing Agent.   |

## 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>           | Tight sealing safety goggles.   |
| <b>Skin and body protection</b>      | Wear appropriate protective gloves and clothing to prevent skin exposure.   |
| <b>Respiratory Protection</b>        | No protective equipment is needed under normal use conditions.  |

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties**

|  |                          |
|--|--------------------------|
| Physical State                         | Low melting solid Solid  |
| Appearance                             | Light yellow             |
| Odor                                   | sweet                    |
| Odor Threshold                         | No information available |
| pH                                     | No information available |
| Melting Point/Range                    | 24.5 °C / 76.1 °F        |
| Boiling Point/Range                    | 275 °C / 527 °F @ 2 mmHg |
| Flash Point                            | 148 °C / 298.4 °F        |
| Evaporation Rate                       | Not applicable           |
| Flammability (solid,gas)               | No information available |
| Flammability or explosive limits       |                          |
| Upper                                  | No data available        |
| Lower                                  | No data available        |
| Vapor Pressure                         | No information available |
| Vapor Density                          | Not applicable           |
| Specific Gravity                       | 0.911                    |
| Solubility                             | Insoluble in water       |
| Partition coefficient; n-octanol/water | No data available        |
| Autoignition Temperature               | 275 °C / 527 °F          |
| Decomposition Temperature              | > 275°C                  |
| Viscosity                              | Not applicable           |
| Molecular Formula                      | C11 H20 O2               |
| Molecular Weight                       | 184.28                   |

**10. Stability and reactivity**

|                                  |   |
|----------------------------------|---|
| Reactive Hazard                  | None known, based on information available                |
| Stability                        | Stable under normal conditions.                           |
| Conditions to Avoid              | Avoid dust formation. Incompatible products. Excess heat. |
| Incompatible Materials           | Bases, Reducing Agent                                     |
| Hazardous Decomposition Products | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )   |
| Hazardous Polymerization         | Hazardous polymerization does not occur.                  |
| Hazardous Reactions              | None under normal processing.                             |

**11. Toxicological information****Acute Toxicity****Product Information****Component Information**

| Component          | LD50 Oral                 | LD50 Dermal | LC50 Inhalation |
|--------------------|---------------------------|-------------|-----------------|
| 10-Undecenoic acid | LD50 = 2500 mg/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**

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component          | CAS No   | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|--------------------|----------|------------|------------|------------|------------|------------|
| 10-Undecenoic acid | 112-38-9 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** 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. See actual entry in RTECS for complete information.

## 12. Ecological information

### Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

| Component          | Freshwater Algae | Freshwater Fish  | Microtox   | Water Flea        |
|--------------------|------------------|--|------------|-------------------|
| 10-Undecenoic acid | Not listed       | LC50: = 32.3 mg/L, 96h semi-static (Oncorhynchus mykiss) | Not listed | EC50: 28 mg/L/48h |

**Persistence and Degradability** Insoluble in water Persistence is unlikely

**Bioaccumulation/ Accumulation** No information available.

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

| Component          | log Pow |
|--------------------|---------|
| 10-Undecenoic acid | 3.86    |

## 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 - Active-Inactive | TSCA - EPA Regulatory Flags |
|--------------------|----------|------|---|-----------------------------|
| 10-Undecenoic acid | 112-38-9 | X    | ACTIVE  | -                           |

**Legend:**

TSCA US EPA (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), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component          | CAS No   | DSL | NDL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|--------------------|----------|-----|-----|-----------|-------|------|------|------|-------|----------|
| 10-Undecenoic acid | 112-38-9 | X   | -   | 203-965-8 | X     | X    | X    | X    | X     | KE-35091 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**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 Not applicable

**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 Slight risk, Grade 1

Authorisation/Restrictions according to EU REACH

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

| Component | CAS No | OECD HPV | Persistent Organic | Ozone Depletion | Restriction of |
|-----------|--------|----------|--------------------|-----------------|----------------|
|-----------|--------|----------|--------------------|-----------------|----------------|

|                    |          |                | Pollutant      | Potential      | Hazardous Substances (RoHS) |
|--------------------|----------|----------------|----------------|----------------|-----------------------------|
| 10-Undecenoic acid | 112-38-9 | Not applicable | Not applicable | Not applicable | Not applicable              |

| Component          | CAS No   | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|--------------------|----------|---|--|----------------------------|------------------------------------|
| 10-Undecenoic acid | 112-38-9 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |

## 16. Other information

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**Revision Summary**

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**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**