

# SAFETY DATA SHEET

Creation Date 11-Feb-2010

Revision Date 18-Dec-2025

Revision Number 7

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

|                             |   |
|-----------------------------|---|
| <b>Product Name</b>         | n-Undecane  |
| <b>Cat No. :</b>            | <b>AC140660000; AC140660025; AC140660050; AC140660100; AC140661000; AC140665000</b> |
| <b>CAS No</b>               | 1120-21-4   |
| <b>Synonyms</b>             | No information available  |
| <b>Recommended Use</b>      | Laboratory chemicals.   |
| <b>Uses advised against</b> | Food, drug, pesticide or biocidal product use.                                      |

### Details of the supplier of the safety data sheet

|                           |                     |
|---------------------------|---------------------|
| <b>Company</b>            |                     |
| Fisher Scientific Company | Acros Organics      |
| One Reagent Lane          | One Reagent Lane    |
| Fair Lawn, NJ 07410       | Fair Lawn, NJ 07410 |
| Tel: (201) 796-7100       |                     |

### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99

CHEMTRAC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

## 2. Hazard(s) identification

### Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

|                     |            |
|---------------------|------------|
| Flammable liquids   | Category 3 |
| Aspiration Toxicity | Category 1 |

### Label Elements

#### **Signal Word**

Danger

#### **Hazard Statements**

Flammable liquid and vapor

May be fatal if swallowed and enters airways

**Precautionary Statements****Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

Ground and bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting equipment

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

Take action to prevent static discharges

Use non-sparking tools

**Skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

**Ingestion**

IF SWALLOWED: Immediately call a POISON CENTER or doctor

Do NOT induce vomiting

**Fire**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

**Storage**

Store locked up

Store in a well-ventilated place. Keep cool

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Repeated exposure may cause skin dryness or cracking

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available

### 3. Composition/information on Ingredients

| Component | CAS No    | Weight % |
|-----------|-----------|----------|
| Undecane  | 1120-21-4 | >95      |

### 4. First-aid measures

**General Advice**

If symptoms persist, call a physician.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. Risk of serious damage to the lungs (by aspiration).

**Ingestion**

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim

lean forward.

|  |  |
|--|--|
| <b>Most important symptoms and effects</b> | None reasonably foreseeable. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting |
| <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. Water mist may be used to cool closed containers. |
| <b>Unsuitable Extinguishing Media</b>   | Water may be ineffective, Do not use a solid water stream as it may scatter and spread fire   |
| <b>Flash Point</b>                      | 60 °C / 140 °F  |
| <b>Method -</b>                         | Literature reference: Pensky Martens Closed Cup (ASTM D93, BS EN 22719, BS 2000 Part 404, IP 404, ISO 2719, AS/NZS 2106)                |
| <b>Autoignition Temperature</b>         | 240 °C / 464 °F   |
| <b>Explosion Limits</b>                 |   |
| Upper                                   | 6.5 vol %   |
| Lower                                   | 0.6 vol %   |
| <b>Sensitivity to Mechanical Impact</b> | No information available  |
| <b>Sensitivity to Static Discharge</b>  | No information available  |

### Specific Hazards Arising from the Chemical

Flammable. Risk of ignition. Containers may explode when heated. Keep product and empty container away from heat and sources of ignition.

### Hazardous Combustion Products

Thermal decomposition can lead to release of irritating gases and vapors.

### 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 | Flammability | Instability | Physical hazards |
|--|--------|--------------|-------------|------------------|
|  | 3      | 2            | 0           | N/A              |

## 6. Accidental release measures

|   |   |
|---|---|
| <b>Personal Precautions</b>                 | Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.            |
| <b>Environmental Precautions</b>            | Should not be released into the environment.  |
| <b>Methods for Containment and Clean Up</b> | Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. |

## 7. Handling and Storage

|                 |   |
|-----------------|---|
| <b>Handling</b> | Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Ensure adequate ventilation. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges. |
| <b>Storage.</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Flammables area. Incompatible Materials. Strong oxidizing agents.   |

## 8. Exposure controls / personal protection

### Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protective Equipment

#### **Eye/face Protection**

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. Tight sealing safety goggles.

#### **Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

#### **Respiratory Protection**

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.

#### **Recommended Filter type:**

Organic gases and vapours filter. Type A. Brown. conforming to EN14387.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Appearance

#### **Physical State**

Liquid

#### **Color**

Colorless

#### **Odor**

Petroleum distillates

#### **Odor Threshold**

No information available

#### **Property**

#### Values

#### Remarks

#### • Method

#### **Melting Point/Range**

-26 °C / -14.8 °F

@ 760 mmHg

#### **Softening Point**

No data available

**Method** - Literature reference: Pensky Martens Closed Cup (ASTM D93, BS EN 22719, BS 2000 Part 404, IP 404, ISO 2719, AS/NZS 2106)

#### **Boiling Point/Range**

196 °C / 384.8 °F

On basis of test data

#### **Flash Point**

60 °C / 140 °F

Liquid

#### **Flammability (liquid)**

Combustible liquid Flammable

#### **Flammability (solid,gas)**

Not applicable

#### **Explosion Limits**

**Lower** 0.6 vol%

@ 760 mmHg

**Upper** 6.5 vol%

**Method** - Literature reference: Pensky Martens Closed Cup (ASTM D93, BS EN 22719, BS 2000 Part 404, IP 404, ISO 2719, AS/NZS 2106)

#### **Autoignition Temperature**

240 °C / 464 °F

On basis of test data

#### **Decomposition Temperature**

No data available

Liquid

#### **pH**

No information available

#### **Viscosity**

No data available

#### **Water Solubility**

Insoluble

#### **Solubility in other solvents**

No information available

#### **Partition Coefficient (n-octanol/water)**

0.6 hPa @ 20 °C

#### **Vapor Pressure**

0.740

Liquid

#### **Density / Specific Gravity**

Not applicable

(Air = 1.0)

#### **Bulk Density**

5.4

#### **Vapor Density**

Not applicable (liquid)

#### Other Information

|                             |  |
|-----------------------------|--|
| <b>Molecular Formula</b>    | C11 H24                                |
| <b>Molecular Weight</b>     | 156.31                                 |
| <b>Explosive Properties</b> | explosive air/vapour mixtures possible |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactive Hazard</b>                  | None known, based on information available  |
| <b>Stability</b>                        | Stable under normal conditions.   |
| <b>Conditions to Avoid</b>              | Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition. |
| <b>Incompatible Materials</b>           | Strong oxidizing agents   |
| <b>Hazardous Decomposition Products</b> | Thermal decomposition can lead to release of irritating gases and vapors                              |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.  |
| <b>Hazardous Reactions</b>              | None under normal processing.   |

## 11. Toxicological information

### Information on expected route of exposure

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | Not an expected route of exposure.  |
| <b>Ingestion</b>  | May be harmful if swallowed. Harmful if swallowed. Potential for aspiration if swallowed. |
| <b>Eyes</b>       | Avoid contact with eyes.  |
| <b>Skin</b>       | Avoid contact with skin.  |

### Toxicology data for the components

| Component | LD50 Oral                 | LD50 Dermal                  | LC50 Inhalation              |
|-----------|---------------------------|------------------------------|------------------------------|
| Undecane  | LD50 > 2000 mg/kg ( Rat ) | LD50 > 5000 mg/kg ( Rabbit ) | LC50 > 2.82 mg/L ( Rat ) 8 h |

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** No data available

**(c) serious eye damage/irritation;** No data available

**(d) respiratory or skin sensitization;**  
**Respiratory** No data available  
**Skin** No data available

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;**

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

| Component | CAS No    | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|-----------|-----------|------------|------------|------------|------------|------------|
| Undecane  | 1120-21-4 | Not listed |

**(g) reproductive toxicity;** No data available

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** No data available

**Target Organs** None known.

**(j) aspiration hazard;** Category 1

**Symptoms / effects,both acute and delayed** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

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

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

### Ecotoxicity

No information available.

**Persistence and Degradability** Insoluble in water May persist based on information available.

**Bioaccumulation/ Accumulation** No information available.

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

## 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

**UN-No** UN2330  
**Proper Shipping Name** UNDECANE  
**Hazard Class** 3  
**Packing Group** III

### TDG

**UN-No** UN2330  
**Proper Shipping Name** UNDECANE  
**Hazard Class** 3  
**Packing Group** III

### IATA

**UN-No** UN2330  
**Proper Shipping Name** UNDECANE  
**Hazard Class** 3  
**Packing Group** III

### IMDG/IMO

**UN-No** UN2330  
**Proper Shipping Name** UNDECANE  
**Hazard Class** 3  
**Packing Group** III

## 15. Regulatory Information

### United States of America Inventory

| Component | CAS No    | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|-----------|-----------|------|---|-----------------------------|
| Undecane  | 1120-21-4 | X    | ACTIVE  | -                           |

**Legend:**

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

X - Listed

- - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

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

### International Inventories

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

| Component | CAS No    | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|-----------|-----------|-----|------|-----------|-------|------|------|------|-------|----------|
| Undecane  | 1120-21-4 | X   | -    | 214-300-6 | X     | X    | X    | X    | X     | KE-35051 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### U.S. Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

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

**Clean Air Act** Not applicable

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

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**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 |
|-----------|---------------|------------|--------------|----------|--------------|
| Undecane  | -             | 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** Moderate risk, Grade 2

**Authorisation/Restrictions according to EU REACH** Not applicable

| Component | CAS No    | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|-----------|-----------|---|---|---|
| Undecane  | 1120-21-4 | -   | -   | -   |

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

| Component | CAS No    | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|-----------|-----------|----------|------------------------------|---------------------------|--|
| Undecane  | 1120-21-4 | Listed   | Not applicable               | Not applicable            | Not applicable                             |

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

**Other International Regulations**

| 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) |
|-----------|-----------|---|--|----------------------------|------------------------------------|
| Undecane  | 1120-21-4 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |

**16. Other Information**

**Prepared By** Product stewardship (Regulatory Affairs)  
 Thermo Fisher Scientific  
 email - begel.sdsdesk@thermofisher.com

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**Revision Summary** Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

**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**