

# Material Safety Data Sheet

## 2-Undecanone

ACC# 91861

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 2-Undecanone**Catalog Numbers:** AC140690000, AC140690050, AC140692500, AC299380000, AC299380010, AC299380050 AC299380050, AC299382500**Synonyms:** Methyl nonyl ketone.**Company Identification:**

Acros Organics N.V.  
One Reagent Lane  
Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
112-12-9	2-Undecanone	98+	203-937-5

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear light yellow liquid. Flash Point: 88 deg C.

**Warning!** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May cause eye, skin, and respiratory tract irritation. **Combustible liquid and vapor.** May cause central nervous system effects. The toxicological properties of this material have not been fully investigated.

**Target Organs:** Central nervous system.

#### Potential Health Effects

**Eye:** May cause eye irritation.**Skin:** May cause skin irritation. May be harmful if absorbed through the skin.**Ingestion:** May cause irritation of the digestive tract. May be harmful if swallowed.**Inhalation:** May cause respiratory tract irritation. May be harmful if inhaled. May cause central nervous system effects.**Chronic:** Adverse reproductive effects have been reported in animals.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.**Skin:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.**Ingestion:** Do not induce vomiting. Get medical aid.**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Will burn if involved in a fire. Containers may explode in the heat of a fire. Combustible liquid and vapor.

**Extinguishing Media:** Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** 88 deg C ( 190.40 deg F)

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 2; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

## Section 7 - Handling and Storage

**Handling:** Use with adequate ventilation. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Do not ingest or inhale.

**Storage:** Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2-Undecanone	none listed	none listed	none listed

**OSHA Vacated PELs:** 2-Undecanone: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** 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.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** 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.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid  
**Appearance:** clear light yellow  
**Odor:** Not available.  
**pH:** Not available.  
**Vapor Pressure:** < 1 mm Hg @ 20 deg C  
**Vapor Density:** Not available.  
**Evaporation Rate:**Not available.  
**Viscosity:** Not available.  
**Boiling Point:** 231 - 232 deg C @ 760 mm Hg  
**Freezing/Melting Point:**11 - 13 deg C  
**Decomposition Temperature:**Not available.  
**Solubility:** insoluble  
**Specific Gravity/Density:**0.824  
**Molecular Formula:**C<sub>11</sub>H<sub>22</sub>O  
**Molecular Weight:**170.30

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat.  
**Incompatibilities with Other Materials:** Strong oxidizing agents, strong bases.  
**Hazardous Decomposition Products:** Carbon monoxide, carbon monoxide, carbon dioxide.  
**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**  
**CAS#** 112-12-9: YQ2820000  
**LD50/LC50:**  
CAS# 112-12-9:  
Inhalation, mouse: LC50 = 102000 mg/m<sup>3</sup>;  
Oral, mouse: LD50 = 3200 mg/kg;  
Oral, rat: LD50 = 5 gm/kg;  
Skin, rabbit: LD50 = >5 gm/kg;

**Carcinogenicity:**  
CAS# 112-12-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.  
**Teratogenicity:** No information available.  
**Reproductive Effects:** Adverse reproductive effects have occurred in experimental animals.  
**Mutagenicity:** No information available.  
**Neurotoxicity:** No information available.  
**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.  
**Environmental:** No information available.  
**Physical:** No information available.  
**Other:** Do not empty into drains.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQ	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQ
<b>Hazard Class:</b>	9	9
<b>UN Number:</b>	UN3082	UN3082
<b>Packing Group:</b>	III	III

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 112-12-9 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 112-12-9: fire.

**Section 313** No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 112-12-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations****European Labeling in Accordance with EC Directives****Hazard Symbols:**

N

**Risk Phrases:**

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**

S 29 Do not empty into drains.

S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

**WGK (Water Danger/Protection)**

CAS# 112-12-9: 1

**Canada - DSL/NDSL**

CAS# 112-12-9 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of B3.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 2/11/1999

**Revision #4 Date:** 7/07/2008

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