# Material Safety Data Sheet

Version 3.0
Revision Date 08/23/2008
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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 1*H*,1*H*,2*H*-Perfluoro-1-octene

Product Number : 370568
Brand : Aldrich

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone : +18003255832
Fax : +18003255052
Emergency Phone # : (314) 776-6555

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C8H3F13
Molecular Weight : 346.09 g/mol

| CAS-No. | EC-No. | Index-No. | Concentration |
|---|---|---|---|
| **3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooct-1-ene** | | | |
| 25291-17-2 | 246-791-8 | - | - |

## 3. HAZARDS IDENTIFICATION

### Emergency Overview

**OSHA Hazards**
Flammable Liquid, Irritant

**HMIS Classification**
**Health Hazard**: 2
**Flammability**: 3
**Physical hazards**: 0

**NFPA Rating**
**Health Hazard**: 2
**Fire**: 3
**Reactivity Hazard**: 0

### Potential Health Effects

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.
**Skin** May be harmful if absorbed through skin. Causes skin irritation.
**Eyes** Causes eye irritation.
**Ingestion** May be harmful if swallowed.

## 4. FIRST AID MEASURES

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

**If inhaled**
If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

**In case of skin contact**
Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5. FIRE-FIGHTING MEASURES

**Flammable properties**

| | |
|---|---|
| Flash point | 20 °C (68 °F) - closed cup |
| Ignition temperature | no data available |

**Suitable extinguishing media**
For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Special protective equipment for fire-fighters**
Wear self contained breathing apparatus for fire fighting if necessary.

**Further information**
Use water spray to cool unopened containers.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods for cleaning up**
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## 7. HANDLING AND STORAGE

**Handling**
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

**Storage**
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**
Handle with gloves.

**Eye protection**
Safety glasses

**Skin and body protection**
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

| | |
|---|---|
| Form | clear, liquid |
| Colour | colourless |

**Safety data**

| | |
|---|---|
| pH | no data available |
| Melting point | no data available |
| Boiling point | 102 - 104 °C (216 - 219 °F) |
| Flash point | 20 °C (68 °F) - closed cup |
| Ignition temperature | no data available |
| Lower explosion limit | no data available |
| Upper explosion limit | no data available |
| Density | 1.52 g/mL at 25 °C (77 °F) |
| Water solubility | no data available |

## 10. STABILITY AND REACTIVITY

**Storage stability**
Stable under recommended storage conditions.

**Conditions to avoid**
Heat, flames and sparks.

**Materials to avoid**
Strong oxidizing agents

**Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen fluoride

**Hazardous reactions**
Vapours may form explosive mixture with air.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

no data available

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

**Chronic exposure**

| | |
|---|---|
| IARC: | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| ACGIH: | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. |
| NTP: | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| OSHA: | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Potential Health Effects**

| | |
|---|---|
| **Inhalation** | May be harmful if inhaled. Causes respiratory tract irritation. |
| **Skin** | May be harmful if absorbed through skin. Causes skin irritation. |
| **Eyes** | Causes eye irritation. |
| **Ingestion** | May be harmful if swallowed. |

## 12. ECOLOGICAL INFORMATION

**Elimination information (persistence and degradability)**

no data available

**Ecotoxicity effects**

no data available

**Further information on ecology**

no data available

## 13. DISPOSAL CONSIDERATIONS

**Product**
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**
Dispose of as unused product.

## 14. TRANSPORT INFORMATION

**DOT (US)**
UN-Number: 1993 Class: 3 Packing group: II
Proper shipping name: Flammable liquids, n.o.s. (3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooct-1-ene)
Marine pollutant: No
Poison Inhalation Hazard: No

**IMDG**
UN-Number: 1993 Class: 3 Packing group: II EMS-No: F-E, S-E
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooct-1-ene)
Marine pollutant: No

**IATA**
UN-Number: 1993 Class: 3 Packing group: II
Proper shipping name: Flammable liquid n.o.s. (3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooct-1-ene)

## 15. REGULATORY INFORMATION

**OSHA Hazards**
Flammable Liquid, Irritant

**DSL Status**
This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

| | CAS-No. |
|---|---|
| 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooct-1-ene | 25291-17-2 |

**SARA 302 Components**
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**
Fire Hazard, Acute Health Hazard

**Massachusetts Right To Know Components**
No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

| | CAS-No. | Revision Date |
|---|---|---|
| 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooct-1-ene | 25291-17-2 | |

**New Jersey Right To Know Components**

| | CAS-No. | Revision Date |
|---|---|---|
| 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooct-1-ene | 25291-17-2 | |

**California Prop. 65 Components**
This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

## 16. OTHER INFORMATION

**Further information**


The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.