



SIGMA-ALDRICH

Material Safety Data Sheet

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Version 1.40

Section 1 - Product and Company Information

Product Name Decanal, minimum 99%
Product Number D7384
Brand Sigma Chemical

Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-5832
Fax: 800-325-5052

Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
CAPRINALDEHYDE 96%(GC)	112-31-2	No	203-957-4	

Formula C10H20O
Synonyms Aldehyde C10, C-10 aldehyde, Capraldehyde, Capric aldehyde, Caprinaldehyde, Caprinic aldehyde, Decaldehyde, n-Decaldehyde, Decanal, n-Decanal, Decanaldehyde, Decyl aldehyde, n-Decyl aldehyde, 1-Decyl aldehyde, Decylic aldehyde

Section 3 - Hazards Identification

Emergency Overview
Irritant.
Irritating to eyes, respiratory system and skin.
Combustible.

HMIS Rating
Health: 1 Flammability: 2 Reactivity: 0

NFPA Rating
Health: 1 Flammability: 2 Reactivity: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure
In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

Flammable Hazards: Yes

Flash Point: 181.4 °F 83 °C

Autoignition Temp: N/A

Flammability: Yes

Extinguishing Media

Suitable

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.

Firefighting

Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)

Emits toxic fumes under fire conditions. Combustible liquid.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill
Evacuate area.

Procedure(s) of Personal Precaution(s)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling

User Exposure

Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed. Keep away from heat and open flame. Store at 2-8°C

Section 8 - Exposure Controls / PPE

Engineering Controls

Mechanical exhaust required. Safety shower and eye bath.

Personal Protective Equipment

Respiratory

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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.

Hand

Compatible chemical-resistant gloves.

Eye

Chemical safety goggles.

General Hygiene Measures
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance	Color	Form
	Faintly yellow	Clear liquid
Molecular Weight:	156.27 AMU	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	93 - 95 °C	10 mmHg
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	0.15 mmHg	20 °C
Vapor Density	> 1 g/l	
Saturated Vapor Conc.	N/A	
SG/Density	0.832 g/cm3	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point °F	181.4 °F	Method: closed cup
Flash Point °C	83 °C	Method: closed cup
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	1.431	
Solubility	N/A	

N/A = not available

Section 10 - Stability and Reactivity

Stability
Stable
Stable.
Materials to Avoid
Strong oxidizing agents, Strong bases, Strong reducing agents.

Hazardous Decomposition Products
Hazardous Decomposition Products
Carbon monoxide, Carbon dioxide.

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

Route of Exposure
Skin Contact
Causes skin irritation.
Skin Absorption
May be harmful if absorbed through the skin.
Eye Contact
Causes eye irritation.
Inhalation
May be harmful if inhaled, Material is irritating to mucous membranes and upper respiratory tract.
Ingestion
May be harmful if swallowed.

Signs and Symptoms of Exposure
Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: HD6000000

Toxicity Data

Oral - Rat: 3730 UL/KG (LD50)
Oral - Mouse: > 41750 mg/kg (LD50)
Remarks: Behavioral: Excitement.
Gastrointestinal: Hypermotility, diarrhea.
Skin and Appendages: Other: Hair.
Skin - Rabbit: 5040 UL/KG (LD50)

Irritation Data

Skin - Rabbit: 14,372 mg 24H
Remarks: Open irritation test
Skin - Rabbit: 500 mg 24H
Remarks: Mild irritation effect

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation
Contact a licensed professional waste disposal service to dispose of this material.
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.
Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
UN#: 3082
Class: 9
Packing Group: Packing Group III
Hazard Label: Class 9
PIH: Not PIH

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: Xi

Indication of Danger

Irritant.

Risk Statements R: 36/37/38

Irritating to eyes, respiratory system and skin.

Safety Statements S: 26 36

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Classification and Label Text

Indication of Danger

Irritant.

Risk Statements

Irritating to eyes, respiratory system and skin.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Statements

Combustible.

United States Regulatory Information

SARA Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

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 Inc., 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. Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

