SECTION 1. Identification

Product identifier

- Product number: OX0130
- Product name: 1-Octanol [n-Octyl Alcohol]
- CAS-No.: 111-87-5

Relevant identified uses of the substance or mixture and uses advised against

- Identified uses: Reagent for analysis
- Uses advised against:

Details of the supplier of the safety data sheet

- Company: EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

- Emergency telephone: 800-424-9300 CHEMTREC (USA)
  +1-703-527-3887 CHEMTREC (International)
  24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

- Flammable liquid, Category 4, H227
- Eye irritation, Category 2A, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

- Hazard pictograms

- Signal Word: Warning

- Hazard Statements:
  - H227 Combustible liquid.
  - H319 Causes serious eye irritation.

Precautionary Statements
P210  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P264  Wash skin thoroughly after handling.
P280  Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313  If eye irritation persists: Get medical advice/ attention.
P370 + P378  In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P235  Store in a well-ventilated place. Keep cool.
P501  Dispose of contents/ container to an approved waste disposal plant.

SECTION  3. Composition/information on ingredients

Formula  CH₃(CH₂)₇OH               C₈H₁₈O (Hill)
Molar mass  130.23 g/mol

Hazardous ingredients

Chemical Name ( Concentration)
CAS-No.
1-octanol ( >= 90 % - <= 100 % )
111-87-5

Exact percentages are being withheld as a trade secret.

SECTION  4. First aid measures

Description of first-aid measures

Inhalation
After inhalation: fresh air.

Skin contact
After skin contact: wash off with plenty of water. Remove contaminated clothing.

Eye contact
After eye contact: rinse out with plenty of water. Call in ophthalmologist.

Ingestion

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed
irritant effects, CNS disorders, drowsiness, Vertigo, euphoria, agitation, spasms, narcosis

Indication of any immediate medical attention and special treatment needed
Laxative: Sodium sulfate (1 tablespoon/1/4 l water).

SECTION  5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media
Carbon dioxide (CO2), Foam, Dry powder

Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture
Combustible.
Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapors possible in the event of fire.

Advice for firefighters
Special protective equipment for fire-fighters
In the event of fire, wear self-contained breathing apparatus.

Further information
Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid substance contact. Do not breathe vapors, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions
Do not empty into drains.

Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).
Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

SECTION 7. Handling and storage

Precautions for safe handling
Observe label precautions.

Conditions for safe storage, including any incompatibilities
Tightly closed.
Store at room temperature.

SECTION 8. Exposure controls/personal protection

Exposure limit(s)
Contains no substances with occupational exposure limit values.

Engineering measures
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
Individual protection measures
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures
Immediately change contaminated clothing. Apply skin-protective barrier cream. Wash hands and face after working with substance.

Eye/face protection
Safety glasses

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Respiratory protection
required when vapors/aerosols are generated. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>characteristic</td>
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<tr>
<td>Odor Threshold</td>
<td>No information available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>-16 °C</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>383 °F (195 °C) at 1,013 hPa</td>
</tr>
<tr>
<td>Flash point</td>
<td>ca. 194 °F (90 °C) Method: DIN 51758</td>
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<tr>
<td>Evaporation rate</td>
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<tr>
<td>Flammability (solid, gas)</td>
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<tr>
<td>Lower explosion limit</td>
<td>0.8 % (V)</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>0.031 hPa       at 68 °F (20 °C)</td>
</tr>
</tbody>
</table>
SECTION 10. Stability and reactivity

Reactivity
Forms explosive mixtures with air on intense heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions
Violent reactions possible with:
Acid chlorides, Acid anhydrides, Oxidizing agents, acids
Risk of explosion with:
perchloric acid, metallic salts, perchlorates

Conditions to avoid
Strong heating.

Incompatible materials
rubber, various plastics

Hazardous decomposition products
SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure
Eye contact, Skin contact

Acute oral toxicity
LD50 Rat: > 5,000 mg/kg
OECD Test Guideline 401

Symptoms: Nausea, Vomiting, Risk of aspiration upon vomiting., Pulmonary failure possible after aspiration of vomit.

Acute inhalation toxicity
LCLO Rat: 5.6 mg/l; 4 h (RTECS)

Symptoms: Possible damages:, mucosal irritations

Acute dermal toxicity
LD50 Rabbit: > 2,000 mg/kg
OECD Test Guideline 402

Skin irritation
human
Result: No irritation
Patch Test 24 Hrs.
(Lit.)

Eye irritation
Rabbit
Result: Eye irritation
OECD Test Guideline 405
Causes serious eye irritation.

Sensitization
Patch test:
Result: negative
Method: OECD Test Guideline 406

Genotoxicity in vitro
Ames test
Result: negative
Method: OECD Test Guideline 471

Specific target organ systemic toxicity - single exposure
The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard
Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity
IARC  No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA  No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP  No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH  No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information  
After absorption of large quantities: 
CNS disorders, drowsiness, Dizziness, euphoria, agitation, Convulsions, narcosis  
Other dangerous properties cannot be excluded. 
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity  
\textit{Toxicity to fish}  
LC50 Pimephales promelas (fathead minnow): 13 mg/l; 96 h (ECOTOX Database)

\textit{Toxicity to daphnia and other aquatic invertebrates}  
EC50 Daphnia magna (Water flea): 26 mg/l; 24 h (IUCLID)

\textit{Toxicity to algae}  
IC50 Desmodesmus subspicatus (green algae): 14 mg/l; 48 h (IUCLID)

\textit{Toxicity to bacteria}  
Microtox test EC50 Photobacterium phosphoreum: 5.9 mg/l; 5 min (IUCLID)

EC50 activated sludge: 350 mg/l; 3 h  
OECD Test Guideline 209

Persistence and degradability  
\textit{Biodegradability}  
> 70 %; 30 d  
OECD Test Guideline 301A  
Readily biodegradable.

Bioaccumulative potential  
\textit{Partition coefficient: n-octanol/water}  
Log Pow: 2.8  
(experimental)  
(IUCLID) Bioaccumulation is not expected.

Mobility in soil  
No information available.
SECTION  13. Disposal considerations
The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION  14. Transport information

Land transport (DOT)
Not classified as dangerous in the meaning of transport regulations.

Air transport (IATA)
Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)
Not classified as dangerous in the meaning of transport regulations.

SECTION  15. Regulatory information

United States of America

Clean Water Act
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

DEA List I
Not listed

DEA List II
Not listed

US State Regulations

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

Pennsylvania Right To Know
Ingredients
1-octanol

New Jersey Right To Know
Ingredients
1-octanol

California Prop 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.
SAFETY DATA SHEET
according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number  OX0130  Version 1.1
Product name  1-Octanol [n-Octyl Alcohol]

Notification status
TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

SECTION 16. Other information

Training advice
Provide adequate information, instruction and training for operators.

Labeling
Hazard pictograms

Signal Word
Warning

Hazard Statements
H227 Combustible liquid.
H319 Causes serious eye irritation.

Precautionary Statements
Response
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Full text of H-Statements referred to under sections 2 and 3.
H227 Combustible liquid.
H319 Causes serious eye irritation.

Key or legend to abbreviations and acronyms used in the safety data sheet
Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date 09/25/2014

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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