acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: March 11, 2019 Revision: March 04, 2019

1 Identification

Product identifier

· Trade name: <u>2-Octanol</u> · Product code: S25775A

• **CAS Number:** 123-96-6

· Recommended use and restriction on use

· Recommended use: Laboratory chemicals

· Restrictions on use: No relevant information available.

Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 Phone: (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com

Distributor:

Fisher Science Education 6771 Silver Crest Road Nazareth, PA 18064 (800) 955-1177

· Emergency telephone number:

ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International)

2 Hazard(s) identification

· Classification of the substance or mixture

Flam. Lig. 4 H227 Combustible liquid.

Eye Dam. 1 H318 Causes serious eye damage.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



GHS05

· Signal word: Danger

· Hazard statements:

H227 Combustible liquid.

H318 Causes serious eye damage.

Precautionary statements:

P210 Keep away from flames and hot surfaces. – No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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P310

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description 123-96-6 2-Octanol

4 First-aid measures

- Description of first aid measures
- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately rinse with water.

If skin irritation is experienced, consult a doctor.

· After eye contact:

Protect unharmed eye.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:

Strong irritant with the danger of severe eye injury.

Gastric or intestinal disorders when ingested.

- · Danger: Causes serious eye damage.
- · Indication of any immediate medical attention and special treatment needed:

Medical supervision for at least 48 hours.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

Alcohol resistant foam

Water fog / haze

Carbon dioxide

Gaseous extinguishing agents

Fire-extinguishing powder

· For safety reasons unsuitable extinguishing agents:

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Water stream.

Water spray

· Special hazards arising from the substance or mixture

Combustible liquid.

Formation of toxic gases is possible during heating or in case of fire.

- · Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information:

Eliminate all ignition sources if safe to do so.

Use large quantities of foam as it is partially destroyed by the product.

Cool endangered containers with water fog.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Keep away from ignition sources.

· Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Methods and material for containment and cleaning up

Wipe up small spills with paper towel and discard.

Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders). Send for recovery or disposal in suitable receptacles.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling
- · Precautions for safe handling:

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

· Information about protection against explosions and fires:

Combustible liquid.

Keep ignition sources away - Do not smoke.

· Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat, ignition sources or open flame.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

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Do not store together with alkalis (caustic solutions).

Do not store together with acids.

- · Further information about storage conditions: Keep containers tightly sealed.
- · Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- Exposure controls
- General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

- · Engineering controls: Provide adequate ventilation.
- · Protection of hands:



Protective gloves

· Material of gloves

Neoprene gloves Butyl rubber, BR

Nitrile rubber, NBR

- · Not suitable are gloves made of the following materials: PVA gloves
- · Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- · Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment

No relevant information available.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form: Liquid Colorless
Odor: Characteristic
Odor threshold: Not determined.

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| | | (Cont'd. of page 4) |
|--|------------------------------------|---------------------|
| · pH-value: | Not determined. | |
| Melting point/Melting range: | -38.5 ℃ (-37.3 °F) | |
| · Boiling point/Boiling range: | 178.5 ℃ (353.3 °F) | |
| · Flash point: | 71 °C (159.8 °F) | |
| · Flammability (solid, gaseous): | Not applicable. | |
| · Auto-ignition temperature: | Not determined. | |
| · Decomposition temperature: | Not determined. | |
| · Danger of explosion: | Not determined. | |
| · Explosion limits | | |
| Lower: | Not determined. | |
| Upper: | Not determined. | |
| · Oxidizing properties: | Non-oxidizing. | |
| · Vapor pressure: | Not determined. | |
| · Density at 20 °C (68 °F): | 0.82 g/cm3 (6.84 lbs/gal) | |
| · Relative density: | Not determined. | |
| · Vapor density: | Not determined. | |
| · Evaporation rate: | Not determined. | |
| · Solubility in / Miscibility with | | |
| Water: | Fully miscible. | |
| · Partition coefficient (n-octanol/wa | ter): Not determined. | |
| · Viscosity | | |
| Dynamic: | Not determined. | |
| Kinematic: | Not determined. | |
| · Other information | No relevant information available. | |

10 Stability and reactivity

- · Reactivity: No relevant information available.
- · Chemical stability: Stable under normal temperatures and pressures.
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· Possibility of hazardous reactions

Combustible liquid.

Reacts with oxidizing agents.

Reacts with strong acids and alkali.

Used empty containers may contain product gases which form explosive mixtures with air.

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.

· Conditions to avoid

Keep ignition sources away - Do not smoke.

Store away from oxidizing agents.

· Incompatible materials Oxidizers, strong bases, strong acids

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· Hazardous decomposition products

Under fire conditions only:

Carbon monoxide and carbon dioxide

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity: Based on available data, the classification criteria are not met.
- · LD/LC50 values that are relevant for classification: None.
- · Primary irritant effect:
- · On the skin: Based on available data, the classification criteria are not met.
- · On the eye: Strong irritant with the danger of severe eye injury.
- · Sensitization: Based on available data, the classification criteria are not met.
- · IARC (International Agency for Research on Cancer):

Substance is not listed.

· NTP (National Toxicology Program):

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration):

Substance is not listed.

Probable route(s) of exposure:

Ingestion.

Inhalation.

Eve contact.

Skin contact.

- · Acute effects (acute toxicity, irritation and corrosivity): Causes serious eye damage.
- · Repeated dose toxicity: No relevant information available.
- · Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- · Reproductive toxicity: Based on available data, the classification criteria are not met.
- · STOT-single exposure: Based on available data, the classification criteria are not met.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- · Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

- · Toxicity
- · Aquatic toxicity No relevant information available.
- · Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- · Mobility in soil: No relevant information available.
- · Additional ecological information
- · General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- Results of PBT and vPvB assessment
- · **PBT**: Not applicable.

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- · vPvB: Not applicable.
- · Other adverse effects No relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- Uncleaned packagings
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

| 14 Transport information | |
|--|-----------------------|
| · UN-Number · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| UN proper shipping nameDOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · Transport hazard class(es) | |
| · DOT, ADR/RID/ADN, IMDG, IATA · Class | Not regulated. |
| · Packing group · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · Environmental hazards | Not applicable. |
| · Special precautions for user | Not applicable. |
| Transport in bulk according to Annex MARPOL73/78 and the IBC Code | II of Not applicable. |

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- · Section 302 (extremely hazardous substances):

Substance is not listed.

· Section 355 (extremely hazardous substances):

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Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act)

Substance is listed.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause developmental toxicity for females:

Substance is not listed.

· Chemicals known to cause developmental toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· EPA (Environmental Protection Agency):

Substance is not listed.

· IARC (International Agency for Research on Cancer):

Substance is not listed.

· Canadian Domestic Substances List (DSL) (Substances not listed.):

Substance is listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistant, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

Flam. Liq. 4: Flammable liquids - Category 4

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

· Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

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Safety Data Sheets, Individual Manufacturers

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