

GPS Safety Summary

Substance Name:

Octan-2-ol

1. General Statement

Octan-2-ol is produced to be used as a synthesis intermediate for fragrances and flavors industry, agro sciences industry, cosmetics industry. It can also be used to manufacture some esters, polyesters, plasticizers and surfactants.

This substance is manufactured and handled in industrial settings. It must be used under strictly controlled conditions following Article 18(4) of REACH regulation 1907/2006/CE.

2. Chemical Identity

Name: Octan-2-ol

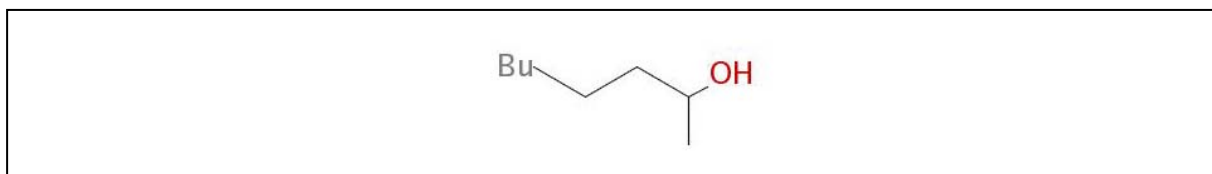
Chemical name (IUPAC): Octan-2-ol

CAS number: 123-96-6

EC number: 204-667-0

Molecular formula: C₈H₁₈O

Structure:



3. Use and applications

Octan-2-ol is a chemical synthesis intermediate.

It is used in flavours & fragrances industry, in agro sciences industry, in cosmetics industry. It can also be used to manufacture some esters, polyesters, plasticizers and surfactants.

4. Physical / Chemical properties

At room temperature 2-octanol is a colourless liquid. Some physico-chemical properties will nevertheless depend on the purity of the product.

Property	Value
Physical state	Liquid at 20°C and 101.3 hPa
Colour	Colourless
Molecular weight	130 g/mol
Density	0.81 at 20°C
Vapour pressure	0.4hPa at 25°C
Freezing / boiling points	-38 °C / 178°C at 1013 hPa

Flash point – flammability	77°C – flammable when hot
Self-ignition temperature	390°C at atmospheric pressure
Explosive / oxidizing properties	Not expected based on structure
Water solubility	Not soluble
Octanol-water partition coefficient (Log K _{ow})	2.86 at 22°C

5. Health Effects

Effect Assessment	Result
Acute Toxicity Oral / inhalation / dermal	Octan-2-ol is slightly harmful by oral ingestion. No data is available for dermal and inhalation acute toxicity.
Irritation / corrosion Skin / eye/ respiratory tract	Octan-2-ol is not a skin irritant but may cause severe eye damage at contact.
Sensitisation	The in vivo experiment shows no skin sensitization potential of Octan-2-ol.
Toxicity after repeated exposure Oral / inhalation / dermal	No data is available.
Genotoxicity / Mutagenicity	Octan-2-ol is not a mutagen in in vitro test.
Carcinogenicity	No data is available.
Reproductive / Developmental Toxicity	No data is available.

6. Environmental Effects

The potential of octan-2-ol for bioaccumulation is low. This product is not expected to persist in the environment. Octan-2-ol is harmful to aquatic life.

Effect Assessment	Result
Aquatic Toxicity	Harmful to aquatic life

Fate and behaviour	Result
(Bio)degradation potential	Readily biodegradable
Bioaccumulation potential	Bioaccumulation is not expected
PBT / vPvB conclusion	Not considered as PBT* or vPvB**

*: Persistent, Bioaccumulative and Toxic (PBT)

** : very Persistent and very Bioaccumulative (vPvB)

7. Exposure

7.1 Human health

Considering the life cycle of the substance (manufacture and use as intermediate of synthesis), consumers will not come into contact with 2-octanol.

Worker exposure may occur in facilities manufacturing or using the substance. However, as the substance is handled under strictly controlled conditions, worker exposure will be very limited. Whenever there is a risk of exposure, during handling, loading, sampling or maintenance operations, workers should follow the recommended safety measures given in the Safety Data Sheet. Given the corrosive properties of the substance, special attention should be paid to avoid eye contact.

7.2 Environment

Emissions of 2-octanol to the environment may occur during production and use of the substance. However as the substance is handled under strictly controlled conditions, releases to the environment will be very limited.

8. Risk Management recommendations

Human health measures		
Organizational	Implement good basic standards of occupational hygiene. Ensure operatives are well informed of the hazards and trained to minimise exposures. On each manufacture or use site, clearly-written substance-handling procedures should be available, kept up-to-date and their implementation controlled. Investigate engineering techniques to reduce exposures. Routine monitoring and inspections for leaks to reduce fugitive emissions. Frequently monitor and control the working atmosphere. Refer to the latest available safety data sheet.	
Engineering controls	Ensure sufficient air exchange and/or exhaust in work areas. Use material of high integrity for loading and unloading. Ensure that eye- and handwash stations and safety showers are close to workstation locations.	
Protection	Eye/Face protection:	Safety glasses with side-shields conforming to EN166
	Skin protection:	Protective suit
	Hand protection:	PVC gloves
	Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment.

Environment protective measures
Use techniques to minimize emissions (incineration or any treatment to minimize level of release). Do not release in the environment.

9. Regulatory Information / Classification and Labelling

9.1 Regulatory Information


This substance has been registered under:

- EU Regulation EC 1907/2006 (REACH)


9.2 Classification and labelling

Under GHS, substances are classified according to their physical, health, and environmental hazards. The hazards are communicated via specific labels and via the SDS. GHS attempts to standardize hazard communication so that the intended audience (workers, consumers, transport workers, and emergency responders) can better understand the hazards of the chemicals in use. Substances registered for REACH are classified according to CLP (EC) 1272/2008, implementation of the GHS in the European Union.

Classification and labelling according to Regulation (EC) n° 1272/2008:

Classification	
– Eye damage; Category 1	
Signal word	
– Danger	
Pictogram	
– GHS05: corrosion	
Hazard statement	
– H318: Causes serious eye damage	

Classification and labelling according to GHS:

Classification	
– Eye damage; Category 1 – Flammable liquid; Category 4 – Acute toxicity (oral); Category 5 – Aquatic acute toxicity; Category 3	
Signal word	
– Danger	
Pictogram	
– GHS05: corrosion	
Hazard statement	
– H227: Combustible liquid – H318: Causes serious eye damage – H303: May be harmful if swallowed – H402: Harmful to aquatic life	

10. Contact Information within Company

For further information on this substance or product safety summary in general, please contact:

- arkema.reach-dpt2@arkema.com
- ICCA portal where the GPS Safety Summary is posted:
<http://www.icca-chem.org/en/Home/ICCA-initiatives/global-product-strategy/>

11. Date of Issues / Revision

- Date of issue: 2014/10/31
- Date of revision:

12. Disclaimer

The information contained in this paper is intended as advice only and whilst the information is provided in utmost good faith and has been based on the best information currently available, is to be relied upon at the user's own risk.

NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN.

No liability will be accepted by ARKEMA for damages of any nature whatsoever resulting from the use of or reliance on the information.