



# SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.0  
Creation Date: July 15, 2019  
Revision Date: July 15, 2019

## SECTION 1: Identification

### 1.1 GHS Product identifier

Product name Hexan-1-ol

### 1.2 Other means of identification

Product number -

Other names n-C<sub>6</sub>H<sub>13</sub>OH; N-HEXANOL; n-Hexenol

### 1.3 Recommended use of the chemical and restrictions on use

Identified uses Industrial and scientific research use.

Uses advised against no data available

### 1.4 Supplier's details

Company Shanghai Yien Chemical Technology Co., Ltd  
Address Building 6, 28 Yingong Road, Fengxian District, Shanghai  
Chemical Industry Zone, Shanghai, 201400, China  
Telephone +86-400-133-2688

### 1.5 Emergency phone number

Emergency phone number +86-400-133-2688

Service hours Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Acute toxicity - Category 4, Oral

### 2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word Warning

Hazard statement(s) H302 Harmful if swallowed

Precautionary statement(s)

Prevention P264 Wash ... thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.

Response P301+P317 IF SWALLOWED: Get medical help.  
P330 Rinse mouth.

<b>Storage</b>	none
<b>Disposal</b>	P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

## 2.3 Other hazards which do not result in classification

no data available

---

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Hexan-1-ol	Hexan-1-ol	111-27-3	203-852-3	100%

---

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

#### If inhaled

Fresh air, rest.

#### Following skin contact

Rinse and then wash skin with water and soap.

#### Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

#### Following ingestion

Rinse mouth. Do NOT induce vomiting. Give one or two glasses of water to drink.

### 4.2 Most important symptoms/effects, acute and delayed

Liquid causes eye burns and skin irritation. Breathing vapors is not expected to cause systemic illness. (USCG, 1999)

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

Basic Treatment: Establish a patent airway (oropharyngeal or nasopharyngeal airway, if needed). Suction if necessary. Watch for signs of respiratory insufficiency and assist ventilations if necessary. Administer oxygen by nonrebreather mask at 10 to 15 L/min. Monitor for shock and treat if necessary. Monitor for pulmonary edema and treat if necessary. Anticipate seizures and treat if necessary. For eye contamination, flush eyes immediately with water. Irrigate each eye continuously with 0.9% saline (NS) during transport. Do not use emetics. For ingestion, rinse mouth and administer 5 ml/kg up to 200 ml of water for dilution if the patient can swallow, has a strong gag reflex, and does not drool. Administer activated charcoal. Higher alcohols (>3 carbons) and related compounds

---

## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

Use carbon dioxide, dry chemical or "alcohol" foam extinguisher. Water is ineffective to fire fighting, but is effective to keep fire-exposed containers cool.

### 5.2 Specific hazards arising from the chemical

Excerpt from ERG Guide 129 [Flammable Liquids (Water-Miscible / Noxious)]: HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers.

Those substances designated with a (P) may polymerize explosively when heated or involved in a fire. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Many liquids are lighter than water. (ERG, 2016)

### 5.3 Special protective actions for fire-fighters

Use alcohol-resistant foam, dry powder, carbon dioxide. In case of fire: keep drums, etc., cool by spraying with water.

---

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Collect leaking and spilled liquid in covered containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

### 6.2 Environmental precautions

Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Collect leaking and spilled liquid in covered containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

### 6.3 Methods and materials for containment and cleaning up

Absorb on paper. Evaporate on a glass or iron dish in hood. Burn the paper.

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

NO open flames. Above 63°C use a closed system and ventilation. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### 7.2 Conditions for safe storage, including any incompatibilities

Separated from strong oxidants. Protect containers against physical damage. Keep containers closed and store in well-ventilated, cool place.

---

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure limit values

<b>Component</b>	Hexan-1-ol			
<b>CAS No.</b>	111-27-3			
	<b>Limit value - Eight hours</b>		<b>Limit value - Short term</b>	
	<b>ppm</b>	<b>mg/m<sup>3</sup></b>	<b>ppm</b>	<b>mg/m<sup>3</sup></b>
<b>Germany (AGS)</b>	50 (1)	210 (1)	50 (1)(2)	210 (1)(2)
	<b>Remarks</b>			
<b>Germany (AGS)</b>	(1) Inhalable aerosol and vapour (2) 15 minutes reference period			

#### Biological limit values

no data available

### 8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

**Eye/face protection**

Wear safety goggles.

**Skin protection**

Protective gloves.

**Respiratory protection**

Use ventilation, local exhaust or breathing protection.

**Thermal hazards**

no data available

---

**SECTION 9: Physical and chemical properties and safety characteristics**

<b>Physical state</b>	Liquid.
<b>Colour</b>	Colourless.
<b>Odour</b>	Characteristic; sweet alcohol; pleasant
<b>Melting point/freezing point</b>	-45 °C. Atm. press.:Ca. 1 atm.
<b>Boiling point or initial boiling point and boiling range</b>	155 °C. Atm. press.:101.59 kPa.
<b>Flammability</b>	Combustible.
<b>Lower and upper explosion limit/flammability limit</b>	Flammable Limits in Air: 1.2%-7.7% (calculated)
<b>Flash point</b>	60 °C. Atm. press.:Ca. 101.5 kPa.
<b>Auto-ignition temperature</b>	Ca. 313 °C. Atm. press.:Ca. 1 atm.
<b>Decomposition temperature</b>	no data available
<b>pH</b>	no data available
<b>Kinematic viscosity</b>	kinematic viscosity (in mm <sup>2</sup> /s) = 3.64. Temperature:40°C.
<b>Solubility</b>	Sol in ethanol, acetone, chloroform; miscible with ether, benzene; slightly soluble in carbon tetrachloride
<b>Partition coefficient n-octanol/water</b>	log Pow = 1.8.
<b>Vapour pressure</b>	3.64 mBar. Temperature:Ca. 38 °C.
<b>Density and/or relative density</b>	0.823 g/cm <sup>3</sup> . Temperature:15.6 °C.
<b>Relative vapour density</b>	4.5 (vs air)
<b>Particle characteristics</b>	no data available

---

**SECTION 10: Stability and reactivity****10.1 Reactivity**

Reacts with strong oxidants.

**10.2 Chemical stability**

no data available

**10.3 Possibility of hazardous reactions**

Flammable liquid when exposed to heat, sparks or flame. HEXANOL is an alcohol. Flammable and/or toxic gases are generated by the combination of alcohols with alkali metals, nitrides, and strong reducing agents. They react with oxoacids and carboxylic acids to form esters plus water. Oxidizing agents convert them to aldehydes or ketones. Alcohols exhibit both weak acid and weak base behavior. They may initiate the polymerization of isocyanates and epoxides.

**10.4 Conditions to avoid**

no data available

## 10.5 Incompatible materials

Can react with oxidizing materials.

## 10.6 Hazardous decomposition products

no data available

---

# SECTION 11: Toxicological information

### Acute toxicity

- Oral: LD50 - rat (male/female) - 3 210 mg/kg bw.
- Inhalation: LC50 - rat (male/female) - > 21 mg/L air.
- Dermal: LD50 - rabbit (male/female) - 1 500 - 2 000 mg/kg bw.

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

### Reproductive toxicity

no data available

### STOT-single exposure

The substance is irritating to the respiratory tract and skin. The substance is severely irritating to the eyes. If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis.

### STOT-repeated exposure

The substance defats the skin, which may cause dryness or cracking.

### Aspiration hazard

No indication can be given about the rate at which a harmful concentration of this substance in the air is reached on evaporation at 20°C.

---

# SECTION 12: Ecological information

## 12.1 Toxicity

- Toxicity to fish: LC50 - Pimephales promelas - 97.2 - 97.5 mg/L - 96 h.
- Toxicity to daphnia and other aquatic invertebrates: EC0 - Daphnia magna - 152 mg/L - 24 h.
- Toxicity to algae: EC50 - Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) - 79.7 mg/L - 72 h.
- Toxicity to microorganisms: TT or EC3 - Pseudomonas putida - 62 mg/L - 16 h.

## 12.2 Persistence and degradability

AEROBIC: 5-Day theoretical BODs of 28%(1), 53% (initial concn of 100 ppm)(2) and 83.6% (initial concn of 2,000 ppm)(3) were observed for 1-hexanol in aerobic screening tests using a sewage inocula. An aerobic biodegradation rate constant of  $7.99 \times 10^{-2}$

1/hr(4), which corresponds to a half-life of 0.36 days(SRC), was determined in an aerobic screening test at pH 7 and 25 deg C using an activated sludge inocula. In a similar screening test, the rate constant was measured to be  $1.7 \times 10^{-2}$  1/hr(5), which corresponds to a biodegradation half-life of 1.7 days(SRC).

### 12.3 Bioaccumulative potential

An estimated BCF of 21 was calculated for 1-hexanol(SRC), using a log Kow of 2.03(1) and regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

### 12.4 Mobility in soil

A Koc of 10.2 was determined for 1-hexanol on a Hagerstown silt loam soil(1). According to a suggested classification scheme(2), this Koc value suggests that 1-hexanol is expected to have very high mobility in soil.

### 12.5 Other adverse effects

no data available

---

## SECTION 13: Disposal considerations

### 13.1 Disposal methods

#### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

---

## SECTION 14: Transport information

### 14.1 UN Number

ADR/RID: Not dangerous goods. (For reference only, please check.)	IMDG: Not dangerous goods. (For reference only, please check.)	IATA: Not dangerous goods. (For reference only, please check.)
---	--	--

### 14.2 UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.)	IMDG: Not dangerous goods. (For reference only, please check.)	IATA: Not dangerous goods. (For reference only, please check.)
---	--	--

### 14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.)	IMDG: Not dangerous goods. (For reference only, please check.)	IATA: Not dangerous goods. (For reference only, please check.)
---	--	--

### 14.4 Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.)	IMDG: Not dangerous goods. (For reference only, please check.)	IATA: Not dangerous goods. (For reference only, please check.)
---	--	--

### 14.5 Environmental hazards

ADR/RID: No	IMDG: No	IATA: No
-------------	----------	----------

### 14.6 Special precautions for user

no data available

## 14.7 Transport in bulk according to IMO instruments

no data available

---

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
Hexan-1-ol	Hexan-1-ol	111-27-3	203-852-3
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.
Korea Existing Chemicals List (KECL)			Listed.

---

## SECTION 16: Other information

### Information on revision

**Creation Date** July 15, 2019

**Revision Date** July 15, 2019

### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Any questions regarding this SDS, Please send your inquiry to [sds@xixisys.com](mailto:sds@xixisys.com)

---

*Disclaimer: 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. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.*