

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 01.03.2023

Version number 1

Revision: 01.03.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** 2-Ethylhexanol
- **Article number:** 585
- **CAS Number:**
104-76-7
- **EC number:**
203-234-3
- **Registration number** 01-2119487289-20
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Chemical.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Möller Chemie GmbH & Co. KG
Bürgerkamp 1
D-48565 Steinfurt
Tel.: 02551/9340-0
Fax: 02551/9340-60
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**
Poison Control Center Mainz - 24 hour emergency service - Tel.: +49 (0) 6131/19240

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

- Acute Tox. 4 H332 Harmful if inhaled.
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye irritation.
- STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard statements**
H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
- **Precautionary statements**
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear eye protection / face protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P405 *Store locked up.*
 P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **2.3 Other hazards**

The product does not contain any substance above the legal limits included on the list for endocrine disrupting properties established under Article 59(1) of Regulation (EC) No 1907/2006 or under Commission Delegated Regulation (EU) 2017/2100 or of Commission Regulation (EU) 2018/605 has endocrine disrupting properties.

· **Results of PBT and vPvB assessment**

· **PBT:**

The product does not contain any substances above legal limits that meet the criteria for PBT (persistent, bioaccumulative and toxic).

· **vPvB:**

The product does not contain any substances above legal limits that meet the criteria for vPvB (very persistent and very bioaccumulative).

SECTION 3: Composition/information on ingredients

· **3.1 Substances**

· **CAS No. Description**

104-76-7 2-Ethylhexanol

· **Identification number(s)**

· **EC number:** 203-234-3

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **After inhalation:** *Supply fresh air, consult doctor in case of complaints.*

· **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting.

Seek medical treatment.

· **4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** *CO₂, powder or water spray. Fight larger fire with alcohol resistant foam.*

· **For safety reasons unsuitable extinguishing agents:** *Water with full jet*

· **5.2 Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Carbon monoxide, carbon dioxide

· **5.3 Advice for firefighters**

· **Protective equipment:** *Wear self-contained respiratory protective device.*

· **Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid contact with eyes and skin
Ensure adequate ventilation
Keep away from ignition sources.
- **6.2 Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.*
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomaceous earth, acid binder, universal binder, sawdust).
Dispose contaminated material as waste according to item 13.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** *Ensure good ventilation/exhaustion at the workplace.*
- **Information about fire - and explosion protection:** *Protect against electrostatic charges.*
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** *Store in well closed containers, cool and dry.*
- **Information about storage in one common storage facility:** *Store away from oxidising agents.*
- **Further information about storage conditions:** *Protect from heat and direct sunlight.*
- **Storage class:** 10
- **7.3 Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**

104-76-7 2-Ethyl-1-hexanol

IOELV Long-term value: 5.4 mg/m ³ , 1 ppm
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- **DNELs**
worker:
long-term exposure - systemic effects - inhalative 12.8 mg/m³
long-term exposure - local effects - inhalative 53.2 mg/m³
acute / short-term exposure - local effects - inhalative 53.2 mg/m³
Long term exposure - systemic effects - Dermal 23 mg/kg bw/day
Population:
long-term exposure - systemic effects - inhalative 2.3 mg/m³
long-term exposure - local effects - inhalative 26.6 mg/m³
acute / short-term exposure - local effects - inhalative 26.6 mg/m³
long term exposure - systemic effects - dermal 11.4 mg/kg bw/day
Long term exposure - systemic effects - Oral 1.1 mg/kg bw/day
- **PNECs**
Water - fresh water: 0.017 mg/l
Water - salt water: 0.0017 mg/l
Water - intermittent releases: 0.17 mg/l
STP: 10 mg/l
Sediment - Freshwater: 0.284 mg/kg dw
Sediment - Saltwater: 0.0284 mg/kg dw
air no hazard identified
Soil: 0.047 mg/kg dw
oral: 55 mg/kg

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· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls** No further data; see item 7.

· **Individual protection measures, such as personal protective equipment**

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Nitrile rubber, NBR

PVC gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· Colour:	Colourless
· Odour:	Alcohol-like
· Odour threshold:	Not determined.
· Melting point/freezing point:	-75 °C
· Boiling point or initial boiling point and boiling range	184 °C
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	0.79 Vol %
· Upper:	12.7 Vol %
· Flash point:	77 °C
· Ignition temperature:	280 °C
· Decomposition temperature:	Not determined.
· pH (0.9 g/l) at 20 °C	5.8
· Viscosity:	
· Kinematic viscosity at 20 °C	11.833 mm ² /s
· Dynamic at 20 °C:	9.8 mPas
· Solubility	
· water at 20 °C:	0.9 g/l

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- *Partition coefficient n-octanol/water (log value)* Not determined.
- *Vapour pressure at 20 °C:* < 1 hPa
- *Density and/or relative density*
- *Density at 20 °C:* 0.832 g/cm³
- *Relative density* Not determined.
- *Vapour density* Not determined.

- **9.2 Other information**
- *Appearance:*
- *Form:* Fluid
- **Important information on protection of health and environment, and on safety.**
- *Auto-ignition temperature:* Not determined.
- *Explosive properties:* Product does not present an explosion hazard.
- *Change in condition*
- *Evaporation rate* Not determined.

- **Information with regard to physical hazard classes**
- *Explosives* Void
- *Flammable gases* Void
- *Aerosols* Void
- *Oxidising gases* Void
- *Gases under pressure* Void
- *Flammable liquids* Void
- *Flammable solids* Void
- *Self-reactive substances and mixtures* Void
- *Pyrophoric liquids* Void
- *Pyrophoric solids* Void
- *Self-heating substances and mixtures* Void
- *Substances and mixtures, which emit flammable gases in contact with water* Void
- *Oxidising liquids* Void
- *Oxidising solids* Void
- *Organic peroxides* Void
- *Corrosive to metals* Void
- *Desensitised explosives* Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
The product is stable if the regulations / instructions for storage and handling are observed.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.
- **10.4 Conditions to avoid** Avoid all sources of ignition: heat, sparks, open flames.
- **10.5 Incompatible materials:** Strong oxidizing agents
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity**
Harmful if inhaled.

· **LD/LC50 values relevant for classification:**

Dermal	LD50	1.970 mg/kg (rabbit)
Inhalative	LC50/ 4h	11 mg/l (ATE)

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- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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**
May cause respiratory irritation.
- **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.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties** Substance is not listed.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**
LC50/96 h: 17.1 mg/l (*Leuciscus idus*)
LC50/96 h: 28.2 mg/l (*Pimephales promelas*)
EC50/48 h: 39 mg/l (*Daphnia magna*)
EC50/72 h: 11.5 mg/l (*Desmodesmus subspicatus*) biomass
EC50/72 h: 16.6 mg/l (*Desmodesmus subspicatus*) growth rate
Activated sludge (domestic):
NOEC/24h: > 300 mg/l
- **12.2 Persistence and degradability**
2-ethylhexan-1-ol, CAS: 104-76-7
Biodegradation
100% (14 d), activated sludge, not adapted, aerobic, OECD 301 C,
97% (7 d), activated sludge, industry, not adapted, aerobic, OECD 302
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** The product is not considered to be persistent, bioaccumulating nor toxic (PBT).
- **vPvB:** The product is not considered to be persistent or very bioaccumulative (vPvB).
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal according to local regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN number or ID number · ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No further relevant information available.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

SECTION 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.

- **Department issuing SDS:** Product safety department
- **Contact:** Mrs. Steyer
- **Abbreviations and acronyms:**
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3