

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date: 05.11.2007

Revision: 05.11.2007

1 Identification of substance:

- **Product details:**
- **Trade name:** 2-ethylhexanol
- **Application of the substance / the preparation** Solvents
- **Supplier/Manufacturer:**
 Penpet Petrochemical Trading GmbH
 Merkur-Park
 Sieker Landstrasse 126
 22143 Hamburg
 Germany
 Tel: +49 40 675 799 0
 Fax: +49 40 675 799 99 / 88
- **Email competent person:** angelika.torges@kft.de
- **Information department:** See supplier/manufacturer
- **Emergency information:** National Poisons Information Centre Tel.: +44 (0)870 6006266

2 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment:**
 R 21 Harmful in contact with skin.
 R 36/38 Irritating to eyes and skin.
- **Classification system:**
 The classification was made according to the latest editions of the EU-lists, and expanded using company data and specialized literature.
- **Additional information:** If heated above the flash point the vapours may form with air an explosive mixture.

3 Composition/information on ingredients

- **Chemical characterization:**
- **CAS No. Description:**
 104-76-7 2-ethylhexan-1-ol
- **Identification number(s):**
- **EINECS Number:** 203-234-3

4 First aid measures

- **General information:**
 Immediately remove any clothing soiled by the product.
 Symptoms of poisoning may occur even after several hours; therefore medical observation is suggested for at least 48 hours after the accident.
 Take affected persons out of danger area and lay them down.
- **After inhalation:**
 Remove victim from contaminated area. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration. Call a doctor.
 In case of unconsciousness, place patients on their side in a stable position for transportation.
- **After skin contact:**
 Clean with water and soap. If possible, also wash with polyethylene glycol 400.
 Do not use solvents or thinners.

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- Seek medical treatment.
- **After eye contact:** Rinse the eyes with open eyelids for 10 - 15 minutes with water. Then consult an eye specialist immediately.
- **After swallowing:**
 Rinse mouth with water.
 Drink plenty of water, but never give anything to an unconscious person.
 Induce vomiting, if person is conscious. Seek medical help.
 Do not administer milk or alcohol.
 Do not administer edible oils or ricinus oil.
 Seek medical treatment.
- **Information for doctor:**
- **The following symptoms may occur:**
 Irritation of eyes and muscuous membrane.
 After inhalation:
 Local irritation symptoms
 Daze
 Narcotic effect
 respiratory paralysis
 After swallowing:
 Gastric or intestinal disorders.
 Nausea
 Vomiting
 Diarrhoea
- **Treatment:**
 If swallowed, induce vomiting (if patient is conscious)
 In cases of irritation to the lungs, initial treatment with Dexametason metered aerosol.

5 Fire fighting measures

- **Suitable extinguishing agents:**
 CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
 Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** Direct jet water
- **Special hazards caused by the material, its products of combustion or resulting gases:**
 Dangerous decomposition product see chapter 10: stability and reactivity
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information:**
 Cool endangered receptacles with water spray.
 Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
 Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Person-related safety precautions:**



Wear protective equipment. Keep unprotected persons away.

- Ensure adequate ventilation
- Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Measures for environmental protection:**
 Do not allow product to reach sewage system or any water course.
 Inform respective authorities in case of seepage into water course or sewage system.
 Do not allow to penetrate the ground/soil.
 In case of seepage into the ground inform responsible authorities.
- **Measures for cleaning/collecting:**
 Absorb with non-combustible material like sand, soil or diatomite.

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Send for recovery or disposal in suitable receptacles.
 Dispose contaminated material as waste according to item 13.

7 Handling and storage

- **Handling**

- **Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.
 Keep away from heat and direct sunlight.
 Use solvent-proof equipment.
 Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
 Avoid contact with eyes and skin.
 Avoid inhalation of vapours.

- **Information about protection against explosions and fires:**

Fumes can combine with air to form an explosive mixture.



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges
 Welding operations are permitted only under supervision.

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store container tightly sealed at a cool and dry place with sufficient ventilation.
 Provide solvent resistant, sealed floor.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.
 Store away from feed.
 Follow regulations for flammable liquids.
 Store separately from:
 Explosives (1)
 Compressed, liquefied and pressurized gas (2A)
 Substances liable to spontaneous combustion (4.2)
 Oxidizing substances (5.1)

- **Further information about storage conditions:** Keep receptacle tightly sealed.

- **Storage class** 3B Flammable Liquids

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:** Not required.

- **Personal protective equipment**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes and skin.
 Do not eat or drink while working.
 Do not inhale gases / fumes / aerosols.
 Store protective clothing separately.
 Use skin protection cream for skin protection.

- **Breathing equipment:**

Not necessary if room is well-ventilated.
 Short term filter device:
 Filter A

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Protection of hands:

Chemical resistant gloves

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

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

Check the permeability prior to each renewed use of the glove.

After use of gloves apply skin-cleaning agents and skin cosmetics.

Material of gloves:

Nitrile rubber, NBR

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.

Not suitable are gloves made of the following materials:

Natural rubber, NR

Polychloropren rubber (CR)

PVC gloves

Eye protection: Tightly sealed goggles.

Body protection: Flame retarding, antistatic protective clothing.

9 Physical and chemical properties:

General Information

Form:	Liquid
Colour:	Colourless
Odour:	Characteristic

Change in condition:

Melting point/Melting range:	-75°C
Boiling point/Boiling range:	184.7°C

Flash point: 76°C

Ignition temperature: 250°C

Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower:	1.8 Vol %
Upper:	12.7 Vol %

Vapour pressure at 20°C: 0.4 hPa

Density at 20°C: 0.8328 g/cm³
Solubility in / Miscibility with
Water at 20°C: 1 g/l

Segregation coefficient (n-octanol/water): 3.1 log POW

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

To avoid thermal decomposition do not overheat.

Materials to be avoided:

Strong bases

Strong oxidants

Dangerous reactions:

Exothermic reactions with strong bases.

Reacts violently with oxidizing agents

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- **Dangerous products of decomposition:**

In the case of fire or at high temperatures the formation of the following decomposition products is possible.

Carbon monoxide and carbon dioxide

Irritant gases/vapours

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Oral LD₅₀ 3730 mg/kg (rat)

Dermal LD₅₀ 1970 mg/kg (rabbit)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:** No sensitizing effects known.

12 Ecological information

- **Information about elimination (persistence and degradability):**

- **Other information:** The product is readily biodegradable.

- **Behaviour in environmental systems:**

- **Mobility and bioaccumulation potential:** log P (o/w) >3 - Considerable bioaccumulation is to be expected

- **Ecotoxicological effects:**

- **Aquatic toxicity:**

104-76-7 2-ethylhexan-1-ol

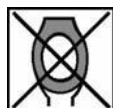
EC₅₀/48h 39 mg/l (daphnia magna)

EC₅₀/72h 11.5 mg/l (des)

LC₅₀/96h 29.7 mg/l (Pimephales promelas)

- **General notes:**

Water hazard class 2 (German Regulation) (Assessment by list): 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.

13 Disposal considerations

- **Product:**

- **Recommendation:**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Must be specially treated adhering to official regulations.

- **European waste catalogue:**

07 01 04 other organic solvents, washing liquids and mother liquors

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
No hazardous good according to the regulation.
- **Maritime transport IMDG:**
- **IMDG Class:** -
No hazardous good according to the regulation.
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** No hazardous good according to the regulation.

15 Regulations

- **Markings according to EC guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials
- **Code letter and hazard designation of product:**



Xn Harmful

- **Risk phrases:**
21 Harmful in contact with skin.
36/38 Irritating to eyes and skin.
- **Safety phrases:**
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of water.
36/37 Wear suitable protective clothing and gloves.
60 This material and its container must be disposed of as hazardous waste.
- **National regulations**
- **Information about limitation of use:**
Restrictions on juvenile employment must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
- **Technical guidance (air):**
- **Class Share in %**
- **III 100.0**
- **Water hazard class:** Water hazard class 2 (Assessment by list): hazardous for water.

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 MSDS:**
KFT-Chemieservice Marienstr. 3 D-64347 Griesheim
Postfach 1451 D-64345 Griesheim
Tel.: +49-6155-823241 Fax: +49-6155-823246
- **Contact:** Angelika Torges
- **Sources:**
RTECS database
ESIS (EU Existing Substances Information System)

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