We create chemistry

# Safety data sheet



## 1. Substance/preparation and manufacturer/supplier identification

**Product name:**
2-ETHYLHEXANOL

Use: Chemical

Manufacturer/supplier:
BASF Australia Limited (ABN 62 008 437 867)
Level 23, 40 City Road, Southbank
Victoria 3006, AUSTRALIA
Telephone: +61 3 8855-6600

Emergency information:
BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]
BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

## 2. Hazard identification

Classification of the substance and mixture:
Flammable liquids: Cat.4
Acute toxicity: Cat.5 (oral)
Acute toxicity: Cat.4 (Inhalation - mist)
Skin irritation: Cat.2
Eye irritation: Cat.2A
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat.3
Hazardous to the aquatic environment - chronic: Cat.3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Warning

Hazard Statement:

| | |
|---|---|
| H227 | Combustible liquid. |
| H319 | Causes serious eye irritation. |
| H315 | Causes skin irritation. |
| H332 | Harmful if inhaled. |
| H303 | May be harmful if swallowed. |
| H335 | May cause respiratory irritation. |
| H402 | Harmful to aquatic life. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary Statements (Prevention):

| | |
|---|---|
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves and eye protection or face protection. |
| P261 | Avoid breathing mist. |
| P280 | Wear eye protection. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P273 | Avoid release to the environment. |
| P261 | Avoid breathing mist or vapour or spray. |
| P264 | Wash contaminated body parts thoroughly after handling. |

Precautionary Statements (Response):

| | |
|---|---|
| P312 | Call a POISON CENTER or physician if you feel unwell. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P332 + P313 | If skin irritation occurs: Get medical attention. |
| P337 + P313 | If eye irritation persists: Get medical attention. |
| P362 + P364 | Take off contaminated clothing and wash it before reuse. |
| P370 + P378 | In case of fire: Use … to extinguish. |

Precautionary Statements (Storage):

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|---|---|
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |

Precautionary Statements (Disposal):

| | |
|---|---|
| P501 | Dispose of contents and container to hazardous or special waste collection point. |

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.
See section 12 - Results of PBT and vPvB assessment.

## 3. Composition/information on ingredients

Chemical nature

Substance nature: Substance

2-ethylhexan-1-ol (Content (W/W): > 99.5 %)
CAS Number: 104-76-7

**Hazardous ingredients**

2-ethylhexan-1-ol

| | |
|---|---|
| Content (W/W): > 99.5 % - <= 100 % | Flam. Liq.: Cat. 4 |
| CAS Number: 104-76-7 | Acute Tox.: Cat. 5 (oral) |
| | Acute Tox.: Cat. 4 (Inhalation - mist) |
| | Skin Irrit.: Cat. 2 |
| | Eye Irrit.: Cat. 2A |
| | STOT SE: Cat. 3 (irr. to respiratory syst.) |
| | Aquatic Acute: Cat. 3 |
| | Aquatic Chronic: Cat. 3 |

## 4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:
Wash thoroughly with soap and water

On contact with eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Note to physician:
Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

## 5. Fire-Fighting Measures

Suitable extinguishing media:
dry powder, water spray, carbon dioxide, foam

Unsuitable extinguishing media for safety reasons:
water jet

Additional information:
Use extinguishing measures to suit surroundings.

Specific hazards:
Flammable liquid Cool endangered containers with water-spray. See SDS section 7 - Handling and storage.

Special protective equipment:
Wear a self-contained breathing apparatus. Special protective equipment for firefighters

Further information:
Evacuate area of all unnecessary personnel. Fight fire from maximum distance.

Further information:
Extend fire extinguishing measures to the surroundings. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

## 6. Accidental Release Measures

Personal precautions:
Handle in accordance with good industrial hygiene and safety practice.

Avoid all sources of ignition: heat, sparks, open flame.Use antistatic tools.

Environmental precautions:
Discharge into the environment must be avoided.

Methods for cleaning up or taking up:
Pick up with suitable appliance and dispose of. Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations.

Additional information: High risk of slipping due to leakage/spillage of product.

Release of substance/product can cause fire or explosion. Shut off or stop source of leak. Shut off or stop released substance/product under safe conditions.

Pack in tightly closed containers for disposal.

## 7. Handling and Storage

Handling

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Ground all transfer equipment properly to prevent electrostatic discharge.

Storage

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Keep under dry nitrogen. Blanket with nitrogen if the container is opened.

## 8. Exposure controls and personal protection

Components with occupational exposure limits

No substance specific occupational exposure limits known.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for lower concentrations or short-term effect: Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:
Chemical resistant protective gloves (EN ISO 374-1)
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
nitrile rubber (NBR) - 0.4 mm coating thickness
Manufacturer's directions for use should be observed because of great diversity of types.
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:
Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment.

## 9. Physical and Chemical Properties

| | | |
|---|---|---|
| Form: | liquid | |
| Colour: | colourless | |
| Odour: | alcohol-like | |
| Odour threshold: | not determined | |
| pH value: | neutral, of low solubility | |
| Melting point: | -89 °C | (ASTM D97) |
| Boiling point: | 186 °C<br>(1,013 hPa) | (OECD Guideline 103) |
| Flash point: | 75 °C | (closed cup) |
| Evaporation rate: | Value can be approximated from Henry's Law Constant or vapor pressure. | |
| Flammability (solid/gas): | Combustible liquid. | (derived from flash point) |
| Lower explosion limit: | 0.88 %(V)<br>Literature data., The lower explosion point may be 5 - 15 °C below the flash point. | |
| Upper explosion limit: | For liquids not relevant for classification and labelling. | |
| Ignition temperature: | 280 °C | (Directive 92/69/EEC, A.15) |
| Thermal decomposition: | No decomposition if stored and handled as prescribed/indicated. | |
| Self ignition: | not self-igniting | Test type: Spontaneous self-ignition at room-temperature. |
| Self heating ability: | It is not a substance capable of spontaneous heating. | |
| Explosion hazard: | Based on the chemical structure there is no indication of explosive properties. | (other) |
| Fire promoting properties: | Based on its structural properties the product is not classified as oxidizing. | (other) |
| Vapour pressure: | 0.93 hPa<br>(20 °C) | (OECD Guideline 104) |
| Density: | 0.832 g/cm3<br>(20 °C) | (ASTM D4052) |
| Relative density: | 0.832<br>(20 °C) | (ASTM D4052) |

| | | |
|---|---|---|
| Relative vapour density (air): | 4.49<br>(20 °C)<br>Heavier than air. | (calculated) |
| Solubility in water: | 0.9 g/l<br>(20 °C) | |
| Partitioning coefficient n-octanol/water (log Pow): | 2.9<br>(25 °C; pH value: 7) | (OECD Guideline 117) |
| Adsorption/water - soil: | KOC: 35.28; log KOC: 1.55 | (calculated) |
| Surface tension: | 47 mN/m<br>(20 °C; 0.81 g/l) | (OECD Guideline 115) |
| Viscosity, dynamic: | 9.845 mPa.s<br>(20 °C) | |
| Molar mass: | 130.23 g/mol | |

Particle characteristics

Particle size distribution: The substance / product is marketed or used in a non solid or granular form. -

## 10. Stability and Reactivity

Conditions to avoid:
Avoid sources of ignition.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
strong oxidizing agents

Corrosion to metals: No corrosive effect on metal.

Hazardous reactions:
No hazardous reactions if stored and handled as prescribed/indicated.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
When heated can give off ignitable vapours.

## 11. Toxicological Information

## Routes of exposure

### Acute oral toxicity

Experimental/calculated data:
LD50rat (oral): 2,047 mg/kg (similar to OECD guideline 401)

### Acute inhalation toxicity

LC50 rat (by inhalation): > 0,89 - <= 5,3 mg/l 4 h (similar to OECD guideline 403)
An aerosol was tested.

### Acute dermal toxicity

LD50 rat (dermal): > 3,000 mg/kg (OECD Guideline 402)

### Assessment of acute toxicity

Of low toxicity after single ingestion. Virtually nontoxic after a single skin contact. Of moderate toxicity after short-term inhalation.

### Symptoms

Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

## Irritation

Assessment of irritating effects:
Eye contact causes irritation. Skin contact causes irritation.

Experimental/calculated data:
Skin corrosion/irritation rabbit: Irritant. (OECD Guideline 404)

Serious eye damage/irritation rabbit: Irritant. (OECD Guideline 405)

Serious eye damage/irritation rabbit: Irritant. (OECD Guideline 405)

## Respiratory/Skin sensitization

Assessment of sensitization:
The substance did not cause skin sensitization in humans.

Experimental/calculated data:
Human Maximization Test human: Non-sensitizing.

## Germ cell mutagenicity

Assessment of mutagenicity:
No mutagenic effect was found in various tests with microorganisms and mammalian cell culture.
The substance was not mutagenic in studies with mammals.

## Carcinogenicity

Assessment of carcinogenicity:
In long-term studies in rats and mice in which the substance was given by gavage, a carcinogenic effect was not observed.

## Reproductive toxicity

Assessment of reproduction toxicity:
The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### Developmental toxicity

Assessment of teratogenicity:
Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

### Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract.

### Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
No substance-specific organtoxicity was observed after repeated administration to animals.

### Aspiration hazard

not applicable

## 12. Ecological Information

### Ecotoxicity

Assessment of aquatic toxicity:
Acutely harmful for aquatic organisms. Harmful to aquatic organisms based on long-term (chronic) toxicity study data. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:
LC50 (96 h) 17.1 mg/l, Leuciscus idus (OECD 203; ISO 7346; 84/449/EWG, C.1, Flow through.)

Aquatic invertebrates:
EC50 (48 h) 39 mg/l, Daphnia magna (Directive 84/449/EEC, C.2, static)
Nominal concentration.

Aquatic plants:
EC50 (72 h) 21.0 mg/l (growth rate), Scenedesmus subspicatus (Directive 88/302/EEC, part C, p. 89)
Nominal concentration.

EC10 (72 h) 7.41 mg/l (growth rate), Desmodesmus subspicatus (Directive 88/302/EEC, part C, p. 89)
Nominal concentration.

Microorganisms/Effect on activated sludge:
No data available.

Chronic toxicity to fish:
other (30 d) 0.278 mg/l, Brachydanio rerio (OECD Guideline 210, Flow through.)
The statement of the toxic effect relates to the analytically determined concentration.

Chronic toxicity to aquatic invertebrates:
EC10 (21 d), 1.53 mg/l, Daphnia magna (OECD Guideline 211, semistatic)
The statement of the toxic effect relates to the analytically determined concentration.

Assessment of terrestrial toxicity:

### Mobility

Assessment transport between environmental compartments:
The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

### Persistence and degradability

Elimination information:
79 - 99.9 % BOD of the ThOD (14 d) (OECD 301C; ISO 9408; 92/69/EWG, C.4-F) (aerobic, Inoculum conforming to MITI requirements (OECD 301C))

Assessment of stability in water:
No data available.

Information on Stability in Water (Hydrolysis):
No data available.

### Bioaccumulation potential

Assessment bioaccumulation potential:
Significant accumulation in organisms is not to be expected.

Bioaccumulation potential:
No data available.

### Other adverse effects

Adsorbable organically-bound halogen (AOX):
This product contains no organically-bound halogen.

### Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

## 13. Disposal Considerations

Dispose of in accordance with national, state and local regulations.

Contaminated packaging:
Disposal must be made according to official regulations.

## 14. Transport Information

**Domestic transport:**

| | |
|---|---|
| | Not classified as a dangerous good under transport regulations |
| UN number or ID number | Not applicable |
| UN proper shipping name: | Not applicable |
| Transport hazard class(es): | Not applicable |
| Packing group: | Not applicable |
| Environmental hazards: | Not applicable |
| Special precautions for user | None known |

**Sea transport**
IMDG

| | |
|---|---|
| | Not classified as a dangerous good under transport regulations |
| UN number or ID number: | Not applicable |
| UN proper shipping name: | Not applicable |
| Transport hazard class(es): | Not applicable |
| Packing group: | Not applicable |
| Environmental hazards: | Not applicable |
| | Marine pollutant: no |
| Special precautions for user | None known |

**Air transport**
IATA/ICAO

| | |
|---|---|
| | Not classified as a dangerous good under transport regulations |
| UN number or ID number | Not applicable |
| Proper shipping name: | Not applicable |
| Transport hazard class(es): | Not applicable |
| Packing group: | Not applicable |
| Environmental hazards: | Not applicable |
| Special precautions for user | None known |

### Maritime transport in bulk according to IMO instruments

| | |
|---|---|
| Regulation: | IBC-Code |
| | |
| Product name: | Octanol (all isomers) |
| Pollution category: | Y |
| Ship Type: | 2 |

## 15. Regulatory Information

**Other regulations**

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Not Scheduled

**Registration status:**

AICIS, AU

Listed in AIIC.

## 16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.