SECTION 1: Identification

1.1. Identification

- **Product form**: Substance
- **Substance name**: 2-Ethyl Hexanol
- **CAS-No.**: 104-76-7
- **Formula**: C₈H₁₈O
- **Synonyms**: 1-hexanol, 2-ethyl- / 2-EH (=2-ethyl hexanol) / 2-EH alcohol / 2-ethyl 2-hexan-1-ol / 2-ethyl hexanol / 2-ethyl hexyl alcohol / 2-ethylhexan-1-ol / 2-Ethylhexanol-1 / 2-Ethyl-n-hexylalkohol / 2-Ethyl-normal-hexylalkohol / 2-etylheksan-1-oli / alcohol C₈ / corexit 8814 / EH (= Ethylhexanol) / ethylhexanol / Ethylhexylalkohol / EXXAL 8 / FORMULA No 91270 / Isooctan-1-ol / isooctanol (=2-ethyl-1-hexanol) / Isooctyl alcohol (=2-ethyl-1-hexanol) / octyl alcohol (=2-ethyl-1-hexanol) / octyl alcohol(2-EH)(=2-ethyl-1-hexanol)

1.2. Recommended use and restrictions on use

- **Recommended use**: Industrial use
- **Restrictions on use**: None known

1.3. Supplier

- **Atlanta Branch Office**: Whitaker Oil Company
  - Address: 1557 Marietta Road NW, Atlanta, GA 30318
  - Contact: 404-355-8220 (t), 404-355-2436 (f)
  - Website: www.whitakeroil.com
  - Email: SDS@whitakeroil.com

- **Ocoee Branch Office**: Whitaker Oil Company
  - Address: 280 Enterprise Street, Ocoee, FL 34761
  - Contact: 407-656.0088 (t), 407-877-8335 (f)

- **Spartanburg Branch Office**: Whitaker Chemicals LLC
  - Address: 405 John Dodd Road, Spartanburg, SC 29303
  - Contact: 864-578-6968 (t), 864-578-6864 (f)

1.4. Emergency telephone number

- **Emergency number**: CHEMTREC 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

- **GHS-US classification**
  - Flammable liquids Category 4: H227 - Combustible liquid
  - Acute toxicity (inhalation) Category 4: H332 - Harmful if inhaled
  - Skin corrosion/irritation Category 2: H315 - Causes skin irritation
  - Serious eye damage/eye irritation Category 2A: H319 - Causes serious eye irritation
  - Specific target organ toxicity (single exposure) Category 3: H335 - May cause respiratory irritation

  Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements

- **GHS-US labeling**
  - **Hazard pictograms (GHS-US)**: ![](image)
  - **Signal word (GHS-US)**: Warning
  - **Hazard statements (GHS-US)**: H227 - Combustible liquid, H315 - Causes skin irritation, H319 - Causes serious eye irritation, H332 - Harmful if inhaled
2-Ethyl Hexanol
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Precautionary statements (GHS-US):

- P210 - Keep away from heat, hot surfaces, open flames, sparks.
- P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
- P264 - Wash hands thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective clothing, protective gloves, eye protection, face protection.
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
- 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.
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
- P332+P313 - If skin irritation occurs: Get medical advice/attention.
- P337+P313 - If eye irritation persists: Get medical advice/attention.
- P362+P364 - Take off contaminated clothing and wash it before reuse.
- P370+P378 - In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish.
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
- P403+P235 - Store in a well-ventilated place. Keep cool.
- P405 - Store locked up.
- P501 - Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available.

2.4. Unknown acute toxicity (GHS US)

Not applicable.

SECTION 3: Composition/Information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethyl Hexanol (Main constituent)</td>
<td>(CAS-No.) 104-76-7</td>
<td>100</td>
<td>Flam. Liq. H227, Acute Tox. 4 (Inhalation), Skin Irr. 2, Eye Irr. 2A, STOT SE 3</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16.

3.2. Mixtures

Not applicable.

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general:


First-aid measures after inhalation:

- Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact:

- Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

First-aid measures after eye contact:

- Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion:

- Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not give milk/oil to drink. Call Poison Control Center. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

4.2. Most important symptoms and effects (acute and delayed)

Potential adverse human health effects and symptoms:

- Practically non-toxic if swallowed (LD50 oral 2000/5000 mg/kg). Causes skin irritation. Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). Harmful if inhaled. May cause respiratory irritation. Causes serious eye irritation. Caution! Substance is absorbed through the skin.
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Symptoms/effects after skin contact: Tingling/irritation of the skin.

Symptoms/effects after eye contact: Irritation of the eye tissue.


Chronic symptoms: No effects known.

4.3. Immediate medical attention and special treatment, if necessary
Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


Unsuitable extinguishing media: Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

5.2. Specific hazards arising from the chemical

Fire hazard: DIRECT FIRE HAZARD: Material presenting a fire hazard. INDIRECT FIRE HAZARD: Temperature above flashpoint: higher fire/explosion hazard. Reactions involving a fire hazard: see "Reactivity Hazard".

Reactivity: Reacts violently with (strong) oxidizers: (increased) risk of fire.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire: Exposure to fire/heat: keep upwind. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighborhood close doors and windows.

Firefighting instructions: Cool tanks/drums with water spray/remove them into safety.


SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Gloves. Face-shield. Protective clothing.

Emergency procedures: Mark the danger area. No naked flames. Wash contaminated clothes.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment: Contain released product, pump into suitable containers. Plug the leak, cut off the supply.

Methods for cleaning up: Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite, kiesel-guhr, powdered limestone. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

### Hygiene measures
Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### Conditions for safe storage, including any incompatibilities
- **Storage conditions**: Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed.
- **Heat-ignition**: KEEP SUBSTANCE AWAY FROM: heat sources.
- **Information on mixed storage**: KEEP SUBSTANCE AWAY FROM: oxidizing agents.
- **Storage area**: Store in a cool area. Ventilation at floor level. Provide for a tub to collect spills. Provide the tank with earthing. Store at ambient temperature. Meet the legal requirements.
- **Special rules on packaging**: SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- **Packaging materials**: SUITABLE MATERIAL: stainless steel. carbon steel. aluminium. polypropylene. plastics.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters
No additional information available

#### 8.2. Appropriate engineering controls
- Appropriate engineering controls: Ensure good ventilation of the work station.
- Environmental exposure controls: Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

**Materials for protective clothing:**
- GIVE EXCELLENT RESISTANCE: butyl rubber. neoprene. viton.
- GIVE GOOD RESISTANCE: PVA.
- GIVE POOR RESISTANCE: natural rubber

**Hand protection:**
- Gloves

**Eye protection:**
- Face shield

**Skin and body protection:**
- Protective clothing

**Respiratory protection:**
- Full face mask with filter type A at conc. in air > exposure limit

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties
- **Physical state**: Liquid
- **Appearance**: Liquid.
- **Color**: Colourless
- **Odor**: Sweet odour Stuffy odour Oil-like odour
- **Odor threshold**: 0.075 ppm
  - 0.4 mg/m³
- **pH**: 7 (0.1 %)
- **Melting point**: -89 °C (Test data)
- **Freezing point**: No data available
- **Boiling point**: 185 °C
- **Critical temperature**: 340 °C
- **Critical pressure**: 27600 hPa
- **Flash point**: 77 °C
- **Relative evaporation rate (butyl acetate=1)**: < 1
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Relative evaporation rate (ether=1) : 690
Flammability (solid, gas) : Not applicable.
Vapor pressure : 0.07 hPa (20 °C)
Vapor pressure at 50 °C : 2.9 hPa
Relative vapor density at 20 °C : 4.5
Relative density : 0.83 (20 °C, Test data)
Specific gravity / density : 834 kg/m³
Molecular mass : 130.23 g/mol
            Water: 0.9 g/l (20 °C, Test data)
Log Pow : 2.9 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Auto-ignition temperature : 280 °C
Decomposition temperature : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : 9.7 mPa.s (20 °C)
Explosion limits : 1 - 12.7 vol %
                 98 - 690 g/m³
                 LEL: 1 vol %
                 UEL: 12.7 vol %
Explosive properties : No data available
Oxidizing properties : No data available

9.2. Other information
Saturation concentration : 0.36 g/m³
VOC content : 100 %
Other properties : Gas/vapour heavier than air at 20°C. Clear. Slightly volatile. Substance has neutral reaction.
                  May generate electrostatic charges.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reacts violently with (strong) oxidizers: (increased) risk of fire.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Inhalation: Harmful if inhaled.

2-Ethyl Hexanol (104-76-7)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>3290 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 3000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, Rat, Male/female, Experimental value)</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>0.89 - 5.3 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male/female, Experimental value)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>3290 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (gases)</td>
<td>4500 ppmV/4h</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>11 mg/l/4h</td>
</tr>
</tbody>
</table>
# 2-Ethyl Hexanol

## Safety Data Sheet

### 2-Ethyl Hexanol (104-76-7)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (dust, mist)</td>
<td>1.5 mg/l/4h</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Causes skin irritation. pH: 7 (0.1 %)</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Causes serious eye irritation. pH: 7 (0.1 %)</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity – single exposure</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>Specific target organ toxicity – repeated exposure</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
</tr>
<tr>
<td>Potential Adverse human health effects and symptoms</td>
<td>Practically non-toxic if swallowed (LD50 oral 2000/5000 mg/kg). Causes skin irritation. Practically non-toxic in contact with skin (LD50 skin &gt; 2000 mg/kg). Harmful if inhaled. May cause respiratory irritation. Causes serious eye irritation. Caution! Substance is absorbed through the skin.</td>
</tr>
<tr>
<td>Symptoms/effects after skin contact</td>
<td>Tingling/irritation of the skin.</td>
</tr>
<tr>
<td>Symptoms/effects after eye contact</td>
<td>Irritation of the eye tissue.</td>
</tr>
<tr>
<td>Chronic symptoms</td>
<td>No effects known.</td>
</tr>
</tbody>
</table>

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general | Not classified as dangerous for the environment according to the criteria of Directive 67/548/EEC. Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008. |


Ecology - water | Harmful to crustacea. Harmful to fishes. Harmful to algae. Slightly harmful to bacteria. |

### 2-Ethyl Hexanol (104-76-7)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>17.1 mg/l (EU Method C.1, 96 h, Leuciscus idus, Flow-through system, Fresh water, Experimental value)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>39 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)</td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

#### 2-Ethyl Hexanol (104-76-7)

Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |

### 12.3. Bioaccumulative potential

#### 2-Ethyl Hexanol (104-76-7)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF other aquatic organisms 1</td>
<td>25.33 (BCFWIN, Calculated value)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>2.9 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

#### 2-Ethyl Hexanol (104-76-7)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension</td>
<td>0.000047 N/m (20 °C, 0.81 g/l)</td>
</tr>
<tr>
<td>Ecology - soil</td>
<td>Highly mobile in soil.</td>
</tr>
</tbody>
</table>
12.5. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Do not discharge into surface water. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

SECTION 14: Transport information

The information in this section is for reference only and should not take the place of a bill of lading specific to an order.

REGULATED for transport ONLY in bulk containers, greater than 119 gallons. Per 49 CFR 173.150 – Exceptions for Class 3 Flammable and Combustible liquids.

Department of Transportation (DOT)
In accordance with DOT
Transport document description : NA1993 Combustible liquid, n.o.s. (2-Ethyl Hexanol), 3, III
UN-No.(DOT) : NA1993
Proper Shipping Name (DOT) : Combustible liquid, n.o.s. (2-Ethyl Hexanol)
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : III - Minor Danger
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Symbols : D - Proper shipping name for domestic use only, or to and from Canada,G - Identifies PSN requiring a technical name
DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T1 - 1.5 178.274(d)(2) Normal............. 178.275(d)(2)
T4 - 2.65 178.274(d)(2) Normal............. 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L
DOT Vessel Stowage Location : A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number : 128
Other information : No supplementary information available.
Transportation of Dangerous Goods

Transport by sea
Not regulated

Air transport
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

2-Ethyl Hexanol (104-76-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag: T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

SARA Section 311/312 Hazard Classes:
- Physical hazard - Flammable (gases, aerosols, liquids, or solids)
- Health hazard - Acute toxicity (any route of exposure)

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations
No additional information available

SECTION 16: Other information

Revision date: 04/12/2018

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H227</th>
<th>Combustible liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
</tbody>
</table>

NFPA health hazard: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard: 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity: 0 - Material that in themselves are normally stable, even under fire conditions.
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Hazard Rating
Health: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)
Physical: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Please be advised revisions to the Safety Data Sheet (SDS) may require a label update. In no event shall Whitaker Oil Company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, however arising, even if Whitaker Oil Company has been advised of the possibility of such damages. The vendor assumes no responsibility for injury or damages resulting from the inappropriate alteration or manipulation of this SDS and its contents from that originally submitted by Whitaker Oil Company.