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

1.1. Product identifier
Product name: 2-Ethyl-1,3-hexanediol
Product form: Substance
Product code: EHDiol

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture:
- Used in closed process, no likelihood of exposure.
- Use in closed, continuous process with occasional controlled exposure.
- Used in closed batch process (synthesis or formulation).
- Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities.
- Transfer of substance or preparation into small containers (dedicated filling line, including weighing).

1.3. Details of the supplier of the safety data sheet
Dixie Chemical Company, Inc.
10601 Bay Area Blvd
Pasadena TX 77507
Phone: 281-474-3271
Email: msds@dixiechemical.com

1.4. Emergency telephone number
Emergency number: CHEMTREC® (800) 424-9300 Domestic, (703) 527-3887 International

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
GHS-US classification
Eye Dam.  1  H318

2.2. Label elements
GHS-US labelling
Hazard pictograms (GHS-US): GHS05

Signal word (GHS-US): Danger
Hazard statements (GHS-US): H318 - Causes serious eye damage
Precautionary statements (GHS-US): P280 - Wear eye protection, face protection, protective clothing, protective gloves
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a doctor, a poison center

2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS-US)
No data available

SECTION 3: Composition/information on ingredients

3.1. Substance
Name: 2-Ethyl-1,3-hexanediol, EHDiol

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethyl-1,3-hexanediol</td>
<td>(CAS No) 94-96-2</td>
<td>90 - 100</td>
</tr>
</tbody>
</table>

3.2. Mixture
Not applicable
SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.

First-aid measures after skin contact: IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. Get medical attention immediately.

First-aid measures after eye contact: IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.

First-aid measures after ingestion: IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: May cause respiratory irritation.

Symptoms/injuries after skin contact: May cause skin irritation.

Symptoms/injuries after eye contact: Causes serious eye damage.

Symptoms/injuries after ingestion: May cause gastrointestinal irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Must be preheated before ignition can occur.

Explosion hazard: Product is not explosive.

Reactivity: Carbon oxides may be emitted upon combustion of material.

5.3. Advice for firefighters

Firefighting instructions: Use cold water spray to cool fire-exposed containers to minimize risk of rupture. Do not dispose of fire-fighting water in the environment. Dispose of in accordance with relevant local regulations. Prevent human exposure to fire, fumes, smoke and products of combustion.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

Protective equipment: Wear Protective equipment as described in Section 8.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: For further information refer to section 8: “Exposure controls/personal protection”.

6.2. Environmental precautions

Notify authorities if product enters sewers or public waters. Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up: Eliminate ignition sources. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

See Sections 8 and 13.
SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Wear personal protective equipment. Do not handle until all safety precautions have been read and understood. Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep container tightly closed in a cool, dry, and well-ventilated place. Recommended storage temperature is less than 25 °C. Containers which are opened should be properly resealed and kept upright to prevent leakage. Keep only in the original container. Do not store together with oxidizing agents.

Packaging materials: Polyethylene. Steel coated (enameled).

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>2-Ethyl-1,3-hexanediol (94-96-2)</th>
<th>Remark (ACGIH)</th>
<th>OELs not established</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Remark (OSHA)</td>
<td>OELs not established</td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Appropriate engineering controls: Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment: Gloves. Wear chemical goggles and face shield in combination. Protective clothing.

Hand protection: Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Be aware that the chemical may penetrate the gloves. Frequent changes are advisable. Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection: Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection: Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection: Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Viscous liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Nearly colorless.</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>-40 °C - lit.</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>241 - 249 (466 - 480 °F) - lit.</td>
</tr>
<tr>
<td>Flash point</td>
<td>120 °C (248 °F) - closed cup</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>5.05 (AIR = 1)</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
</tbody>
</table>
2-Ethyl-1,3-hexanediol, EHDiol

Safety Data Sheet

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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>0.933 g/cm³ at 25 °C (77 °F)</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information
California SCAQMD rule 443.1 VOC: 940.53 g/L VC and 940.53 g/L of regulated material

SECTION 10: Stability and reactivity

10.1. Reactivity
Carbon oxides may be emitted upon combustion of material.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
No data available.

10.5. Incompatible materials
Strong oxidizing agents, reducing agents. Strong acids.

10.6. Hazardous decomposition products
Carbon monoxide (CO), carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

2-Ethyl-1,3-hexanediol (94-96-2)

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>1400 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>2000 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Not classified
This substance causes mild skin irritation in rabbits

Serious eye damage/irritation: Causes serious eye damage.
This substance causes severe eye irritation in rabbits

Respiratory or skin sensitisation: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified
Oral overexposure may have adverse reproductive effects based on rat test data. No additional information available.

Specific target organ toxicity (single exposure): Not classified
Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified

Symptoms/injuries after inhalation: May cause respiratory irritation.

Symptoms/injuries after skin contact: May cause skin irritation.

Symptoms/injuries after eye contact: Causes serious eye damage.

Symptoms/injuries after ingestion: May cause gastrointestinal irritation.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: No information available.

2-Ethyl-1,3-hexanediol

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fishes 1</td>
<td>624 mg/L 96 h</td>
</tr>
</tbody>
</table>

(Ictalurus punctatus)
12.2. Persistence and degradability

| 2-Ethyl-1,3-hexanediol | Persistence and degradability, 27-day OECD 301E | 93% DOC, Failed the 10 day window. Likely to be biodegradable, but will depend on the microbial species present. |

12.3. Bioaccumulative potential

| 2-Ethyl-1,3-hexanediol | Bioaccumulative potential | No information available |

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods: Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT
Not hazardous for transport

Additional information
Other information: No supplementary information available.

Transport by sea
No additional information available

Air transport
No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

| 2-Ethyl-1,3-hexanediol | All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory |

| | SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

15.2. International regulations
All chemical substances in this product are listed on the Canadian Domestic Substances List (DSL) or are exempt
All chemical substances in this product are listed on the Chinese Chemical Inventory of Existing Chemical Substances (IECSC) or are exempt
All chemical substances in this product are listed on the Japanese Existing and New Chemical Substances Inventory (ENCS) or are exempt
All chemical substances in this product are listed on the Korean Existing Chemicals Inventory (KECI) or are exempt
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory
All chemical substances in this product are listed on the European EINECS Inventory or the ELINCS list or are exempt
All chemical substances in this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or are exempt
All chemical substances in this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS) or are exempt
All chemical substances in this product are listed on the Taiwan Chemical Substance Inventory (TSCI) or are exempt

15.3. US State regulations
California Proposition 65
This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

SECTION 16: Other information

Indication of changes: Revision 1.0: New SDS Created.
07/17/2015

Other information: Author: ANF.
2-Ethyl-1,3-hexanediol, EHDiol
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<table>
<thead>
<tr>
<th>NFPA health hazard</th>
<th>2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA fire hazard</td>
<td>1 - Must be preheated before ignition can occur.</td>
</tr>
<tr>
<td>NFPA reactivity</td>
<td>0 - Normally stable, even under fire exposure conditions, and are not reactive with water.</td>
</tr>
</tbody>
</table>

HMIS III Rating

<table>
<thead>
<tr>
<th>Health</th>
<th>2*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection</td>
<td></td>
</tr>
</tbody>
</table>

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.