MATERIAL SAFETY DATA SHEET (MSDS) - ETHYL CELLOSOLVE

1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Ethyl Cellosolve
Synonyms: 2-Ethoxyethanol, Ethylene glycol monophenyl ether

COMPANY IDENTIFICATION

Supplier: Pon Pure Chemicals Group
CHENNAI, TAMILNADU, INDIA

24 Hour Health Emergency
(91) 8939878447
(91) 9444038694

Transportation Emergency Phone
(91) 8939768680

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Place</th>
<th>EMERGENCY TELEPHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pon Pure Chemicals Group</td>
<td>India</td>
<td>Day Emergency – 044-26161803-26161809</td>
</tr>
</tbody>
</table>

2 - COMPOSITION, INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>%</th>
<th>EINECS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>110-80-5</td>
<td>Ethyl Cellosolve</td>
<td>99%</td>
<td>204-589-7</td>
</tr>
</tbody>
</table>

3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Harmful if swallowed. Irritating to eyes.

Potential Health Effects

Eye: Causes eye irritation. Causes redness and pain.
Skin: May cause skin irritation. May be harmful if absorbed through the skin.
Ingestion: Harmful if swallowed. Possible aspiration hazard.
Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.
Chronic: May cause liver and kidney damage.

4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15
minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:**
Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:**
Get medical aid. Wash mouth out with water.

**Inhalation:**
Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

---

### 5 - FIRE FIGHTING MEASURES

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

---

### 6 - ACCIDENTAL RELEASE MEASURES

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Do not let this chemical enter the environment.

---

### 7 – HANDLING AND STORAGE

**Handling:** Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

**Storage:** Store in a cool, dry place. Store in a tightly closed container.

---

### 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Exposure Limits**

- **CAS# 122-99-6:**
  - Germany: 20 ppm TWA; 110 mg/m3 TWA
Germany: skin notation
adequate ventilation to keep airborne concentrations low.
Netherlands: 20 ppm MAC; 110 mg/m3 MAC

**Personal Protective Equipment**

**Eyes:** Wear chemical splash goggles.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

---

**9 - PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Liquid

**Boiling Point:** 133-135 deg C

**Specific Gravity/Density:** 0.928-0.930

**Molecular Formula:** C4H10O2

**Molecular Weight:** 90.12

---

**10 - STABILITY AND REACTIVITY**

**Storage stability:** Stable under recommended storage conditions.

**Conditions to avoid:** May form peroxides on contact with air. Heat, flames and Sparks.

**Materials to avoid:** Oxidizing agents, Copper

Hazardous decomposition products formed under fire conditions: Carbon oxides
11 - TOXICOLOGICAL INFORMATION

Acute toxicity: LD50 Oral - rat - 2.125 mg/kg
Remarks: Behavioral: Somnolence (general depressed activity). Respiratory disorder
LC50 Inhalation - rat - 7 h - 2000 ppm
LD50 Dermal - rabbit - 3.300 mg/kg

Irritation and corrosion: Skin - rabbit - Open irritation test
Eyes - rabbit - Mild eye irritation - 24 h

Sensitisation: No data available

Chronic exposure: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. May cause congenital malformation in the fetus. May cause reproductive disorders.

Potential Health Effects
Inhalation: Harmful if inhaled. May cause respiratory tract irritation.
Skin: Harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: Harmful if swallowed.

Target Organs: Blood, Central nervous system, Liver, Kidney,

12 - ECOLOGICAL INFORMATION

Elimination information
(persistence and degradability): No data available

Ecotoxicity effects: Toxicity to fish LC50 - Lepomis macrochirus - > 10,000 mg/l - 96 h
Toxicity to daphnia
and other aquatic invertebrates: EC50 - Daphnia - 1,892,52 mg/l - 48 h

Further information on ecology: No data available

13 - DISPOSAL CONSIDERATIONS

Product: This combustible material may be burned in a chemical
incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dispose of as unused product.

14 - TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>IATA</th>
<th>IMO</th>
<th>RID/ADR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Name:</td>
<td>Ethylene Glycol</td>
<td>Ethylene Glycol</td>
</tr>
<tr>
<td></td>
<td>Monoethyl Ether</td>
<td>Monoethyl Ether</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>UN Number:</td>
<td>1171</td>
<td>1171</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>III</td>
<td>III</td>
</tr>
</tbody>
</table>

15 - REGULATORY INFORMATION

Labelling according to EC Directives

- EC Label
- Hazard symbols: T Toxic
- R-phrase(s): R60 May impair fertility. R61 May cause harm to the unborn child. R10 Flammable. R20/21/22 Also harmful by inhalation, in contact with skin and if swallowed.
- S-phrase(s): S53 Avoid exposure - obtain special instructions before use. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Restricted to professional users.

16 - ADDITIONAL INFORMATION

Disclaimer:
The information and recommendations contained herein are, to the best of Pon Pure Chemicals Group knowledge and belief, accurate and reliable as of the date issued. You can contact Pon Pure Chemicals Group to ensure that this document is the most current available.
from Pon Pure Chemicals Group. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.