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

1.1 Product identifiers
   Product name : Ethyl Butyrate
   CAS-No. : 105-54-4

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet
   Company : Central Drug House (P) Ltd
              7/28 Vardaan House
              New Delhi -110002
              INDIA
   Telephone : +91 11 49404040
   Email : care@cdhfinechemical.com

1.4 Emergency telephone number
   Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Classification according to Regulation (EC) No 1272/2008
   Flammable liquids (Category 3), H226
   Skin irritation (Category 2), H315
   Eye irritation (Category 2), H319
   Specific target organ toxicity - single exposure (Category 3), H335
   For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements
   Labelling according Regulation (EC) No 1272/2008
   Pictogram

   Signal word : Warning
   Hazard statement(s)
   H226 Flammable liquid and vapour.
   H315 Causes skin irritation.
   H319 Causes serious eye irritation.
   H335 May cause respiratory irritation.
Precautionary statement(s)
P261 Avoid breathing vapours.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements none

2.3 Other hazards - none

SECTION 3: Composition/information on ingredients

3.1 Substances
Synonyms: Butyric acid ethyl ester

Formula: C₆H₁₂O₂
Molecular weight: 116.16 g/mol
CAS-No.: 105-54-4
EC-No.: 203-306-4

Hazardous ingredients according to Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl butyrate</td>
<td>Flam. Liq. 3; Skin Irrit. 2; Eye</td>
<td>&lt;= 100 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>105-54-4</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
<td>203-306-4</td>
<td>Irrit. 2; STOT SE 3; H226, H315, H319, H335</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
For small (incipient) fires, use media such as "alcohol" foam, dry chemica of water applied ineffective.
Cool all affected containers with flooding

5.2 Special hazards arising from the substance or mixture
Carbon oxides

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.
Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to
form explosive concentrations. Vapours can accumulate in low areas.
For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and
place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic
charge.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are
opened must be carefully resealed and kept upright to prevent leakage.
Storage class (TRGS 510): Flammable Liquids

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and
at the end of workday.

Personal protective equipment

Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under
appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Impervious clothing, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- **Appearance**
  - Form: clear, liquid
  - Colour: colourless

- **Odour**
  - No data available

- **Odour Threshold**
  - No data available

- **pH**
  - No data available

- **Melting point/freezing point**
  - Melting point/range: -93.3 - -93.0 °C

- **Initial boiling point and boiling range**
  - 119 - 121 °C at 1013 hPa

- **Flash point**
  - 26 °C - closed cup

- **Evaporation rate**
  - No data available

- **Flammability (solid, gas)**
  - No data available

- **Upper/lower flammability or explosive limits**
  - No data available

- **Vapour pressure**
  - No data available

- **Vapour density**
  - 4.01 - (Air = 1.0)

- **Relative density**
  - 0.879 g/cm3

- **Water solubility**
  - No data available

- **Partition coefficient: n-octanol/water**
  - No data available

- **Auto-ignition temperature**
  - No data available

- **Decomposition temperature**
  - No data available
r) Viscosity No data available
s) Explosive properties No data available
t) Oxidizing properties No data available

9.2 Other safety information
Relative vapour density 4.01 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Heat, flames and sparks.

10.5 Incompatible materials
Oxidizing agents, Bases, acids

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - 13,000 mg/kg(Ethyl butyrate)
LD50 Dermal - Rabbit -> 2,000 mg/kg(Ethyl butyrate)

Skin corrosion/irritation
Skin - Rabbit(Ethyl butyrate)
Result: Moderate skin irritation - 24 h

Serious eye damage/eye irritation
No data available(Ethyl butyrate)

Respiratory or skin sensitisation
No data available(Ethyl butyrate)

Germ cell mutagenicity
No data available(Ethyl butyrate)

Carcinogenicity
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.

Reproductive toxicity
No data available(Ethyl butyrate)

Specific target organ toxicity - single exposure
Inhalation - May cause respiratory irritation.(Ethyl butyrate)
Specific target organ toxicity - repeated exposure
No data available

**Aspiration hazard**
No data available (Ethyl butyrate)

**Additional Information**
RTECS: ET1660000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated (Ethyl butyrate)

**SECTION 12: Ecological information**

12.1 **Toxicity**
Toxicity to fish
LC0 - Leuciscus idus melanotus - 35 mg/l - 48 h (Ethyl butyrate)
LC50 - Leuciscus idus melanotus - 53 mg/l - 48 h (Ethyl butyrate)

Toxicity to daphnia and other aquatic invertebrates
LC50 - Daphnia magna (Water flea) - 755 mg/l - 24 h (Ethyl butyrate)

12.2 **Persistence and degradability**
No data available

12.3 **Bioaccumulative potential**
No data available

12.4 **Mobility in soil**
No data available (Ethyl butyrate)

12.5 **Results of PBT and vPvB assessment**
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 **Other adverse effects**
No data available

**SECTION 13: Disposal considerations**

13.1 **Waste treatment methods**

**Product**
Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**
Dispose of as unused product.

**SECTION 14: Transport information**

14.1 **UN number**
ADR/RID: 1180  
IMDG: 1180  
IATA: 1180

14.2 **UN proper shipping name**
ADR/RID: ETHYL BUTYRATE
IMDG: ETHYL BUTYRATE
IATA: ETHYL BUTYRATE

14.3 **Transport hazard class(es)**
ADR/RID: 3  
IMDG: 3  
IATA: 3
14.4 Packaging group  
ADR/RID: III  
IMDG: III  
IATA: III 

14.5 Environmental hazards  
ADR/RID: no  
IMDG Marine pollutant: no  
IATA: no 

14.6 Special precautions for user  
No data available 

SECTION 15: Regulatory information 

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. 

15.2 Chemical safety assessment 
For this product a chemical safety assessment was not carried out 

SECTION 16: Other information 

Full text of H-Statements referred to under sections 2 and 3.  
H226 Flammable liquid and vapour. 
H315 Causes skin irritation. 
H319 Causes serious eye irritation. 
H335 May cause respiratory irritation. 

Further information  
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.