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

1.1 Product identifiers
   Product name: Diethylene Glycol Mono Butyl Ether
   CAS-No.: 112-34-5

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-10002
   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
   Eye irritation (Category 2), H319
   For the full text of the H-Statements mentioned in this Section, see Section 16.

   Classification according to EU Directives 67/548/EEC or 1999/45/EC
   Xi Irritant R36
   For the full text of the R-phrases mentioned in this Section, see Section 16.

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

   ![Pictogram]
   Skin irritation

   Signal word: Warning
   Hazard statement(s): H319
   Causes serious eye irritation.
Precautionary statement(s)
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 none

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms: Butyldiglycol
2-(2-Butoxyethoxy)ethanol

Formula: C₈H₁₈O₃
Molecular weight: 162.23 g/mol
CAS-No.: 112-34-5
EC-No.: 203-961-6
Index-No.: 603-096-00-8

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

Component | Classification | Concentration
--- | --- | ---
2-(2-Butoxyethoxy)ethanol | Eye Irrit. 2; H319 | <= 100 %

Hazardous ingredients according to Directive 1999/45/EC

Component | Classification | Concentration
--- | --- | ---
2-(2-Butoxyethoxy)ethanol | Xi, R36 | <= 100 %

For the full text of the H-Statements and R-Phrases 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
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
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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
No data available

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. For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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. 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. Storage class (TRGS 510): Combustible 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
Components with workplace 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
Safety glasses with side-shields conforming to EN166 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. 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 a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of 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
Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance
   Form: liquid
   Colour: colourless

b) Odour
   Slight

c) Odour Threshold
   No data available

d) pH
   7

e) Melting point/freezing point
   Melting point/range: -67.99 °C

f) Initial boiling point and boiling range
   224 - 228 °C - lit.

g) Flash point
   99 °C - closed cup

h) Evaporation rate
   No data available

i) Flammability (solid, gas)
   No data available

j) Upper/lower
   Upper explosion limit: 6.2 %(V)
flammability or explosive limits

k) Vapour pressure 40 hPa at 130 °C
l) Vapour density 5,6 - (Air = 1.0)
m) Relative density 0,953 g/mL at 20 °C
n) Water solubility completely miscible
o) Partition coefficient: n-octanol/water log Pow: 1 at 20 °C
p) Auto-ignition temperature 210 °C at 1.013,25 hPa
q) Decomposition temperature No data available
r) Viscosity 6,122 mm2/s at 20 °C
s) Explosive properties No data available
t) Oxidizing properties No data available

9.2 Other safety information
Surface tension 32,8 mN/m at 20 °C
Relative vapour density 5,6 - (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
May form peroxides of unknown stability.

10.5 Incompatible materials
Strong oxidizing agents, Light metals

10.6 Hazardous decomposition products
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 - male - 7.291 mg/kg
(OECD Test Guideline 401)
LD50 Dermal - Rabbit - male - 2.764 mg/kg
(OECD Test Guideline 402)

Skin corrosion/irritation
Skin - Rabbit
Result: Mild skin irritation - 1 h
(OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - Rabbit
Result: Irritating to eyes.
(OECD Test Guideline 405)

Respiratory or skin sensitisation
Maximisation Test (GPMT) - Guinea pig
Result: Does not cause skin sensitisation.
(OECD Test Guideline 406)

Germ cell mutagenicity
Ames test
S. typhimurium
Result: negative
OECD Test Guideline 477
Drosophila melanogaster - male and female
Result: negative

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
Reproductive toxicity - Rat - male and female - Dermal
No adverse effect has been observed in chronic toxicity tests.
Developmental Toxicity - Rabbit - Dermal
No adverse effect has been observed in chronic toxicity tests.

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 250 mg/kg
RTECS: KJ9100000
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity
Toxicity to fish    static test LC50 - Lepomis macrochirus - 1.300 mg/l - 96 h
(OECD Test Guideline 203)
Toxicity to daphnia and static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h
other aquatic (Directive 67/548/EEC, Annex V, C.2.)
invertebrates
Toxicity to algae    static test EC50 - Desmodesmus subspicatus (Scenedesmus subspicatus) - > 100 mg/l - 96 h
(OECD Test Guideline 201)
Toxicity to bacteria  LC50 - Pseudomonas putida - 1.170 mg/l - 16 h
12.2 Persistence and degradability
Biodegradability    aerobic - Exposure time 28 d
12.3 **Bioaccumulative potential**  
Does not bioaccumulate.

12.4 **Mobility in soil**  
No data available

12.5 **Results of PBT and vPvB assessment**  
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 **Other adverse effects**  
No data available

**SECTION 13: Disposal considerations**

13.1 **Waste treatment methods**
- **Product**  
  Offer surplus and non-recyclable solutions to a licensed disposal company.
- **Contaminated packaging**  
  Dispose of as unused product.

**SECTION 14: Transport information**

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

14.2 **UN proper shipping name**
- ADR/RID: Not dangerous goods  
- IMDG: Not dangerous goods  
- IATA: Not dangerous goods

14.3 **Transport hazard class(es)**
- ADR/RID: -  
  IMDG: -  
  IATA: -

14.4 **Packaging group**
- ADR/RID: -  
  IMDG: -  
  IATA: -

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**

- This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- 2-(2-Butoxyethoxy)ethanol  
  CAS-No.: 112-34-5  
  REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)  
  Shall not be placed on the market for the first time after 27 June 2010, for supply to the general public, as a constituent of spray paints or spray cleaners in aerosol dispensers in concentrations equal to or greater than 3 % by weight.  
  See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction

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.
Eye Irrit. Eye irritation
H319 Causes serious eye irritation.

Full text of R-phrases referred to under sections 2 and 3
Xi Irritant
R36 Irritating to eyes.

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.