tert-Amyl Alcohol  
CAS No 75-85-4  
MATERIAL SAFETY DATA SHEET  
SDS/MSDS

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

1.1 **Product identifiers**  
Product name: tert-Amyl Alcohol  
CAS-No.: 75-85-4

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-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**  
Flammable liquids (Category 2), H225  
Acute toxicity, Inhalation (Category 4), H332  
Acute toxicity, Dermal (Category 4), H312  
Skin irritation (Category 2), H315  
Serious eye damage (Category 1), H318  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, 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**: Danger  
- **Hazard statement(s)**  
  H225: Highly flammable liquid and vapour.
H312 + H332 Harmful in contact with skin or if inhaled
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Precautionary statement(s)
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear eye protection/ face protection.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P370 + P378 In case of fire: Use dry powder or dry sand to extinguish.
P403 + P235 Store in a well-ventilated place. Keep cool.

Supplemental Hazard Statements

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.
Lachrymator.

SECTION 3: Composition/information on ingredients

3.1 Substances
Synonyms: tert-Amyl alcohol
tert-Pentyl alcohol

<table>
<thead>
<tr>
<th>Formula</th>
<th>C5H12O</th>
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</thead>
<tbody>
<tr>
<td>Molecular weight</td>
<td>88.15 g/mol</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>75-85-4</td>
</tr>
<tr>
<td>EC-No.</td>
<td>200-908-9</td>
</tr>
<tr>
<td>Index-No.</td>
<td>603-007-00-2</td>
</tr>
</tbody>
</table>

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>tert-Pentanol</td>
<td>Flam. Liq. 2; Acute Tox. 4;</td>
<td>&lt;= 100 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>75-85-4</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
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</tr>
<tr>
<td>Index-No.</td>
<td>603-007-00-2</td>
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<tr>
<td>STOT SE 3; H225, H332, H312, H315, H318, H335</td>
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<td></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
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
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
   Tightly fitting safety goggles. Faceshield (8-inch minimum). 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
   Complete suit protecting against chemicals. 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 engineer 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

   a) Appearance
   Form: clear, liquid
   Colour: colourless
b) Odour
   No data available

c) Odour Threshold
   No data available

d) pH
   6 at 118 g/l at 20 °C

e) Melting point/freezing point
   Melting point/range: -12 °C - lit.

f) Initial boiling point and boiling range
   102 °C - lit.

g) Flash point
   20 °C - closed cup

h) Evaporation rate
   No data available

i) Flammability (solid, gas)
   No data available

j) Upper/lower flammability or explosive limits
   Upper explosion limit: 9 % (V)
   Lower explosion limit: 1.2 % (V)

k) Vapour pressure
   12 mmHg at 20 °C

l) Vapour density
   3.04 - (Air = 1.0)

m) Relative density
   0.805 g/cm3 at 25 °C

n) Water solubility
   125 g/l

o) Partition coefficient: n-octanol/water
   log Pow: 0.77 at 25 °C

p) Auto-ignition temperature
   425 °C
   at 1,013.25 hPa

q) 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 3.04 - (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
   Strong oxidizing agents

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 - male and female - 5,184 mg/kg(tert-Pentanol)
(OECD Test Guideline 401)
Inhalation: No data available(tert-Pentanol)

Skin corrosion/irritation
No data available(tert-Pentanol)

Serious eye damage/eye irritation
No data available(tert-Pentanol)

Respiratory or skin sensitisation
- Mouse(tert-Pentanol)
Did not cause sensitisation on laboratory animals.
(OECD Test Guideline 429)

Germ cell mutagenicity
No data available(tert-Pentanol)
In vitro mammalian cell gene mutation test(tert-Pentanol)
Chinese hamster lung cells
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(tert-Pentanol)

Specific target organ toxicity - single exposure
No data available(tert-Pentanol)

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available(tert-Pentanol)

Additional Information
Repeated dose toxicity - Rat - male and female - inhalation (vapour) - No observed adverse effect level - 2,561 mg/kg(tert-Pentanol)
RTECS: SC0175000

prolonged or repeated exposure can cause; Nausea, Dizziness, Headache. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(tert-Pentanol)

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish static test LC50 - Leuciscus idus (Golden orfe) - 2,430 mg/l - 48 h(tert-Pentanol)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 540 mg/l - 48 h(tert-Pentanol)

Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - > 500 mg/l - 72 h(tert-Pentanol)
12.2 Persistence and degradability
Biodegradability aerobic - Exposure time 28 d (tert-Pentanol)
Result: 40 - 50 % - Not rapidly biodegradable
(OECD Test Guideline 310)

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available (tert-Pentanol)

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
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.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 1105
IMDG: 1105
IATA: 1105

14.2 UN proper shipping name
ADR/RID: PENTANOLS
IMDG: PENTANOLS
IATA: Pentanols

14.3 Transport hazard class(es)
ADR/RID: 3
IMDG: 3
IATA: 3

14.4 Packaging group
ADR/RID: II
IMDG: II
IATA: II

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.
H225 Highly flammable liquid and vapour.
H312 Harmful in contact with skin.
H312 + H332 Harmful in contact with skin or if inhaled
H315  Causes skin irritation.
H318  Causes serious eye damage.
H332  Harmful if inhaled.
H335  May cause respiratory irritation.

Further information
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