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

1.1 Product identifiers
Product name: Cetyl Pyridinium Chloride
CAS-No.: 6004-24-6

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
Acute toxicity, Oral (Category 3), H301
Acute toxicity, Inhalation (Category 2), H330
Skin irritation (Category 2), H315
Eye irritation (Category 2), H319
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

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): H301 Toxic if swallowed.
Precautionary statement(s)

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms
Hexadecylpyridinium chloride
Cetylpyridinium chloride

Formula: C_{21}H_{38}ClN·H_{2}O
Molecular weight: 358.01 g/mol
CAS-No.: 6004-24-6
EC-No.: 204-593-9

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

Component Classification Concentration

Cetylpyridinium chloride monohydrate
CAS-No. 6004-24-6 Acute Tox. 3; Acute Tox. 2; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 1; H301, H330, H315, H319, H335, H400, H410
EC-No. 204-593-9 M-Factor - Aquatic Acute: 100

<= 100 %

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. Take victim immediately to hospital. 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, Nitrogen oxides (NOx), Hydrogen chloride gas

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
Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. 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. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. 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 formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. 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): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

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
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.
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**
Complete suit protecting against chemicals, 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 (EN 143) respirator cartridges as a backup to engineering controls. If th 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. Discharge into the environment must be avoided.

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><strong>a) Appearance</strong></td>
<td>Form: flakes</td>
</tr>
<tr>
<td></td>
<td>Colour: beige</td>
</tr>
<tr>
<td><strong>b) Odour</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>c) Odour Threshold</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>d) pH</strong></td>
<td>5.0 - 5.4 at 20 °C</td>
</tr>
<tr>
<td><strong>e) Melting point/freezing</strong></td>
<td>Melting point/range: 83 - 86 °C</td>
</tr>
<tr>
<td><strong>f) Initial boiling point and</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>boiling range</strong></td>
<td></td>
</tr>
<tr>
<td><strong>g) Flash point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>h) Evaporation rate</strong></td>
<td>No data available</td>
</tr>
<tr>
<td>**i) Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td><strong>j) Upper/lower flammability or</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>explosive limits</strong></td>
<td></td>
</tr>
<tr>
<td><strong>k) Vapour pressure</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>l) Vapour density</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>m) Relative density</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>n) Water solubility</strong></td>
<td>soluble</td>
</tr>
<tr>
<td><strong>o) Partition coefficient: n-</strong></td>
<td>log Pow: 1.71</td>
</tr>
<tr>
<td><strong>octanol/water</strong></td>
<td></td>
</tr>
<tr>
<td><strong>p) Auto-ignition</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>temperature</strong></td>
<td></td>
</tr>
<tr>
<td><strong>q) Decomposition</strong></td>
<td>234 °C -</td>
</tr>
<tr>
<td><strong>temperature</strong></td>
<td></td>
</tr>
<tr>
<td><strong>r) Viscosity</strong></td>
<td>No data available</td>
</tr>
</tbody>
</table>
9.2 **Other safety information**
No data available

**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**
No data available

10.5 **Incompatible materials**
acids, Acid anhydrides, Acid chlorides, Strong oxidizing agents

10.6 **Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas
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 - 200 mg/kg(Cetylpyridinium chloride monohydrate)
LC50 Inhalation - Rat - 4 h - 0.09 mg/l(Cetylpyridinium chloride monohydrate)
Dermal: No data available(Cetylpyridinium chloride monohydrate)

**Skin corrosion/irritation**
Skin - Rabbit(Cetylpyridinium chloride monohydrate)
Result: Moderate skin irritation

**Serious eye damage/eye irritation**
Eyes - Rabbit(Cetylpyridinium chloride monohydrate)
Result: Moderate eye irritation

**Respiratory or skin sensitisation**
No data available(Cetylpyridinium chloride monohydrate)

**Germ cell mutagenicity**
No data available(Cetylpyridinium chloride monohydrate)

**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(Cetylpyridinium chloride monohydrate)

**Specific target organ toxicity - single exposure**
Inhalation - May cause respiratory irritation.(Cetylpyridinium chloride monohydrate)

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available(Cetylpyridinium chloride monohydrate)
Additional Information
RTECS: UU5075000

Cough, Shortness of breath, Headache, Nausea, Vomiting (Cetylpyridinium chloride monohydrate)

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish
LC50 - Cyprinus carpio (Carp) - 0.01 mg/l - 96.0 h (Cetylpyridinium chloride monohydrate)

Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (Water flea) - 9.18 mg/l - 48 h (Cetylpyridinium chloride monohydrate)

Toxicity to algae
EC50 - Pseudokirchneriella subcapitata - 26.9 mg/l - 72 h (Cetylpyridinium chloride monohydrate)

12.2 Persistence and degradability

Biodegradability
Result: 25% - Not readily biodegradable.
(OECD Test Guideline 301D)

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available (Cetylpyridinium chloride monohydrate)

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
Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 2811  
IMDG: 2811  
IATA: 2811

14.2 UN proper shipping name
ADR/RID:  TOXIC SOLID, ORGANIC, N.O.S. (Cetylpyridinium chloride monohydrate)
IMDG:  TOXIC SOLID, ORGANIC, N.O.S. (Cetylpyridinium chloride monohydrate)
IATA:  Toxic solid, organic, n.o.s. (Cetylpyridinium chloride monohydrate)
14.3 Transport hazard class(es)  
ADR/RID: 6.1  
IMDG: 6.1  
IATA: 6.1  

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.  

H301 Toxic if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H330 Fatal if inhaled.  
H335 May cause respiratory irritation.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  

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.