ACETIC ACID SOLUTION 10%  
MATERIAL SAFETY DATA SHEET  
SDS/MSDS

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

1.1 Product identifiers
   Product name: Acetic Acid Solution 10%
   Product Code: 800320

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
   Skin irritation (Category 1A), H314
   Eye irritation (Category 1), H318
   Respiratory Sensitizer (Category 1), H334
   Specific target organs/systemic toxicity following Single Exposure, H370
   Specific target organs/systemic toxicity following Repeated Exposure, H373
   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)
   H290 May be corrosive to metals.
   H315 Cause severe skin burns and eye damage.
   H318 Causes serious eye damage.
   H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
   H370 Causes damage to organs.
   H373 May cause damage to organs through prolonged or repeated exposure.
Precautionary statement(s)
P260     Do not breathe fumes, mist, vapors, or spray.
P261     Avoid breathing fumes, mist, vapor or spray.
P264     wash arms, hands and face thoroughly after handling.
P270     Do not eat, drink, or smoke when using this product.
P280     Wear protective gloves and eye protection.
P285     In case of inadequate ventilation wear respiratory protection.
P301 + P330 + P331     IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353     IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340     IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338     IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307 + P311     IF exposed: Call a POISON CENTER or physician.
P310     Immediately call a POISON CENTER or physician.
P314     Get medical attention if you feel unwell.
P321     Specific treatment (Wash areas of contact with water).
P342 + P311     If experiencing respiratory symptoms: Call a POISON CENTER or physician.
P363     Wash contaminated clothing before reuse.
P390     Absorb spillage to prevent material damage.
P405     Store locked up.
P501     Dispose of contents in accordance with local, state, federal and international regulations.

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 Mixture
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>Acetic acid</td>
<td>Flam. Liq. 3; Met. Corr. 1; Skin</td>
<td>10.35 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>64-19-7</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
<td>200-580-7</td>
<td></td>
</tr>
<tr>
<td>Index-No.</td>
<td>607-002-00-6</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>1A; H226, H290, H314</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7732-18-5</td>
<td>89.65 %</td>
</tr>
<tr>
<td>EC-No.</td>
<td>231-791-2</td>
<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 INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

In case of skin contact
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May cause serious damage to the skin. Effects may include redness, pain, skin burns.

In case of eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Eye contact may cause severe eye damage followed by loss of sight. Vapor exposure may cause watering and irritation to eyes.
If swallowed
Rinse mouth. Do NOT induce vomiting. Do not induce vomiting. Give large quantity of water. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed
Danger! Corrosive liquid. May be fatal if swallowed. Causes severe burns to all areas of contact. Harmful if inhaled. Inhalation may cause lung and tooth damage. Immediately wash areas of contact with plenty of water for at least 15 minutes. If ingested, give large quantity of water. Do not induce vomiting. EYE CONTACT: Eye contact may cause severe eye damage followed by loss of sight. Vapor exposure may cause watering and irritation to eyes. SKIN CONTACT: May cause serious damage to the skin. Effects may include redness, pain, skin burns. CHRONIC EFFECTS /CARCINOGENICITY: Repeated exposures may cause erosion of exposed front teeth, darkening of skin and chronic inflammation of the nose, throat and bronchial tubes.

4.3 Indication of any immediate medical attention and special treatment needed
Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water).

SECTION 5: Firefighting measures

5.1 Extinguishing media
Water, dry chemical, foam, or carbon dioxide. Water spray may be used to keep fire-exposed containers cool.

5.2 Special hazards arising from the substance or mixture
Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Contact with strong oxidizers may cause fire. Vapors can flow along surfaces to distant ignition source and flash back. Reacts with most metals to produce hydrogen gas, which can form explosive mixture with air.

5.3 Advice for firefighters
Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

5.4 Further information
No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

6.2 Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3 Methods and materials for containment and cleaning up
Absorb with inert material (vermiculite, sand). Ventilate, if necessary, site of spillage well to evaporate remaining liquid and dispel vapor. Do not flush to sewer. Always comply with local, state, and federal regulations.

6.4 Reference to other sections
No data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Handling: Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.
Technical protective measures: Provide good ventilation in process area to prevent formation of vapour.

7.2 Conditions for safe storage, including any incompatibilities
Storage: Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.
Storage - away from: Strong bases, Strong acids, Sources of ignition, Direct sunlight.

7.3 Specific end use(s)
None
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: liquid
b) Odour Colour: colourless
Vinegar-like
c) Odour Threshold No data available
d) pH 2.3
e) Melting point/freezing point Approximately 0°C
f) Initial boiling point and boiling range Approximately 100°C - 118°C
g) Flash point 39°C (Acetic Acid)
h) Evaporation rate No data available
i) Flammability (solid, gas) No data available
j) Upper/lower flammability or explosive limits No data available
k) Vapour pressure No data available
l) Vapour density No data available
m) Relative density 1.01 g/ml at 20°C
n) Water solubility completely miscible
9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
Acetic acid contracts slightly upon freezing which may cause the container to burst.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Direct sunlight. Extremely high or low temperatures.

10.5 Incompatible materials
Strong bases, strong oxidizers, chromic acid, sodium peroxide, nitric acid, perchloric acid.

10.6 Hazardous decomposition products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
No data available

Skin corrosion/irritation
Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Serious eye damage/eye irritation
Causes serious eye damage. Wear protective gloves and eye protection. 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 or physician.

Respiratory or skin sensitisation
May cause allergy or asthma symptoms or breathing difficulties if inhaled. Avoid breathing fumes, mist, vapors, or spray. In case of inadequate ventilation wear respiratory protection. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Dispose of contents in accordance with local, state, federal and international regulations.

Germ cell mutagenicity
No data available (Acetic acid)
Carcinogenicity
No data available

Reproductive toxicity
No data available (Acetic acid)

Specific target organ toxicity - single exposure
Causes damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific target organ toxicity - repeated exposure
May cause damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

Aspiration hazard
No data available (Acetic acid)

Additional Information
No data available

SECTION 12: Ecological information

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available (Acetic acid)

12.5 Results of PBT and vPvB assessment
The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6 Other adverse effects
Environmental precautions: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product
Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: - 2790  IMDG: - 2790  IATA: - 2790

14.2 UN proper shipping name
ADR/RID: ACETIC ACID SOLUTION
IMDG: ACETIC ACID SOLUTION
IATA: Acetic Acid Solution

14.3 Transport hazard class(es)
ADR/RID: - 8  IMDG: - 8  IATA: - 8

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
A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information
Full text of H-Statements referred to under sections 2 and 3.

- H290 May be corrosive to metals.
- H315 Cause severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H370 Causes damage to organs.
- H373 May cause damage to organs through prolonged or repeated exposure.

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.