

|                         |   |                                     |
|-------------------------|---|-------------------------------------|
| <b>Name of Material</b> | : | <b>Acid – Ascorbic Acid [E 302]</b> |
| Manufacturer            | : | NA                                  |
| Supplier                | : | NA                                  |
| Country of Origin       | : | NA                                  |
| Batch/Lot No.           | : | NA                                  |
| MFG Date                | : | NA                                  |
| EXP Date                | : | NA                                  |
| Challan No.             | : | NA                                  |
| QA Ref. No.             | : | NA                                  |
| QRN Ref. No.            | : | NA                                  |
| Qty. Supplied           | : | NA                                  |
| Date of Received        | : | NA                                  |
| Date of Testing         | : | NA                                  |
| Date of Reporting       | : | NA                                  |

| SN | Description                               | Specification   | Results |
|----|---|---|---------|
| 01 | Physical appearance                       | A clear, Colorless or white or almost white, crystalline powder                   |         |
| 02 | Identification                            | Must be comply to BP  |         |
| 03 | Solubility                                | Freely soluble in water<br>Soluble in alcohol<br>Practically insoluble in ether   |         |
| 04 | P <sup>H</sup> (5 % solution)             | 2.10 to 2.60  |         |
| 05 | Specific Optical Rotation (10 % solution) | + 20.5° to + 21.5°  |         |
| 06 | Clarity and color of solution             | Must be clear solution  |         |
| 07 | Assay                                     | 99.00% to 100.50%   |         |
| 08 | Defects Free                              | Free from dust. Free from foreign matter.<br>Free from abnormal color and flavor. |         |

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| <b>Remarks</b> |  |
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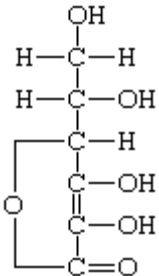
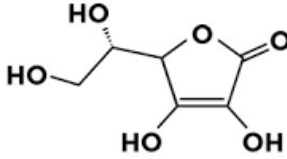
|                 |  |          |  |          |
|-----------------|--|----------|--|----------|
| <b>Decision</b> |  | Accepted |  | Rejected |
|-----------------|--|----------|--|----------|

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**Tested By**

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**Checked By**

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**Approved By**

**Other Related Information**

| Name of Material         | Acid – Ascorbic Acid [E 302]  |
|--------------------------|---|
| Others Name              | Ascorbic Acid<br>Vitamin C<br>L – ascorbic acid<br>Ascorbate<br>Ascor<br>Cevalin  |
| Chemical Composition     | C <sub>6</sub> H <sub>8</sub> O <sub>6</sub><br><br><div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Vitamin C</p> </div> <div style="text-align: center;"> <p><b>ASCORBIC ACID - Vitamin C</b></p>  <p><small>shutterstock.com · 1360047836</small></p> </div> </div>   |
| Molar Mass               | 176.124 gm/mol  |
| Density                  | 1.694 gm/cm <sup>3</sup>  |
| Melting Point            | 190 – 192 C   |
| Boiling Point            | 552.7 C   |
| Others Information       | <ul style="list-style-type: none"> <li>- Ascorbic acid [Vitamin C] is water soluble.</li> <li>- It can be found in Citrus Fruits, other fruits and vegetables.</li> <li>- It can be sold as dietary supplement.</li> <li>- Used to prevent Scurvy.</li> <li>- Ascorbic acid [Vitamin C] is an essential nutrients involve to repair tissue, formation of collagen, enzymatic production. Important for immune system.</li> <li>- Antioxidant</li> </ul> <p>40mg/day ..... India Institution of Nutrition<br/>                     45mg/day ..... WHO<br/>                     80mg/day ..... EU<br/>                     100mg/day ..... Japan National Institute of Health and Nutrition<br/>                     110mg/day ..... European Food Safety Authority</p> |
| Function in Food Process | <ul style="list-style-type: none"> <li>- Ascorbic acid is an Anti-Oxidant food additive.</li> <li>- A natural preservative and a Low pH of ascorbic acid can prevent the microbial growth. Thereby, prevents food spoilage and thus preserves the freshness and original color of the food.</li> <li>- The tangerine flavor of ascorbic acid enhances food products taste.</li> </ul>   |

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|  | <ul style="list-style-type: none"><li>- Ascorbic acid is added to fruit juices, fruit flavored candies, dried fruits, frozen fruits to fortify or to add a citrus flavor.</li><li>- Ascorbic acid acts as a preservative to keep spoiling free for bread, meats, jams, jellies etc.</li><li>- Ascorbic acid [Vitamin C] helps to protect cells and keeping healthy, maintaining healthy skin, blood vessels, bones and cartilage.</li><li>- Ascorbic acid absorbs iron in body, helps wound healing, helps functioning in immune system.</li><li>- Ascorbic acid and its esters function as Anti-Oxidants with some substrates by protecting double bonds and scavenging Oxygen.</li></ul> |
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