Hexa Iso-Extract (Hexa)

- **Overview**
  - **Hexa** is a pure aqueous solution of the potassium salts of hexahydroiso-α-acids produced entirely from CO₂ hop extract.
  - **Hexa** is one of the most antibacterial hop acids produced from alpha acids. As little as 40 ppm of **Hexa** can inhibit the growth of gram positive bacteria in clear solutions.
  - **Hexa** is produced according to 21 CFR 172.560.

- **Specification**
  - **Description:** An amber colored, aqueous solution of the potassium salts of hexahydroiso-α-acids.
  - **Concentration:** 9.0 ± 0.5 % (w/w) of hexahydroiso-α-acids & 1.0 ± 0.5 % (w/w) of tetrahydroiso-α-acids by HPLC
  - **pH:** 9.5 (± 1.0)
  - **Density:** 1.017 (± 0.005) g/ml (HPLC)
    (1.015 g/ml – UV Spectrophotometric)
  - **Solubility:** Soluble in demineralized water.

Molecular Structure of Hexahydro-isoalpha acids

R=isopropyl, isobutyl, sec-butyl
Properties

- **Appearance**
  A homogeneous, pale amber, clear aqueous solution; mobile and free flowing at normal storage and use temperatures. Miscible with demineralized water and alcohol.

- **Stability**
  Hexa has good storage stability when stored in sealed containers at room temperatures.

- **Quality**
  All Hopsteiner® products are produced in plants accredited to internationally accepted quality standards. Hexa is Food Grade, Kosher and is not an antibiotic.

Packaging

Hexa is regularly available in 20-kg pails (HDPE) or 200-kg drums (PP). Other package sizes (including totes) are available on request.

Product Use

In order to inhibit gram positive bacteria growth, Hexa is typically added to a yeast propagator or fermenter at a dose rate of 40 ppm. The product can be simply poured or added via a metering pump.

- **Storage**
  Hexa will maintain its integrity for at least 12 months. Ambient storage temperatures between 10-15°C (50-60°F) are ideal.

Safety

Hexa should be handled with due care, especially to prevent contact with the eyes. Any contamination of the skin should be washed off with soap and water. If Hexa gets into the eyes, irrigate with excess water until clear and seek immediate medical attention.

For full safety information please see the relevant Steiner material safety data sheet.

Analytical methods

- **Concentration of Hexa-hydroiso-α-acids in Product**
  The concentration of Hexahydroiso-α-acids can be determined by UV Spectrophotometric analysis or by HPLC using the current ICS standard according to the modified EBC 7.9 method.

Technical Support

We will be pleased to offer help and advice on the full range of Hopsteiner® products:

- Copies of all relevant analytical procedures
- Material Safety Data Sheets (MSDS)
- Assistance with pilot or commercial trials
- Specialist analytical services