



Isomerized Kettle Extract (IKE)

MATERIAL SAFETY DATA SHEET

| Section I. PRODUCTS AND SUPPLIER | |
|---|---|
| Supplier's Name S. S. Steiner, Inc. or Simon H. Steiner Hopfen GmbH or Steiner Hops Ltd. | Emergency Telephone No. USA: +1-509-453-4731 or Germany: +49-8751-8605-0 UK: +44-1992-572331 |
| Address 1 West Washington Avenue, Yakima, Washington 98903, USA or Auhofstrasse 18, 84048 Mainburg, Germany or 319A High Street, Epping, Essex CM16 4DA, United Kingdom | |
| Product Name Isomerized Kettle Extract | Trade Name and Synonyms IKE, Pre-isomerized CO ₂ Extract, Isomerized Resin Extract, IRE |
| CAS No(s). Not available | |
| Chemical Family Modified Extract of hops; organic. | Formula Not applicable |
| Section II. COMPONENTS | |
| Material or components | % |
| Hop resin and essential oil concentrate produced from hops; alpha acids have been converted to iso-alpha acids. | Hop Resins typically 45% to 80%; hop oils 35 to 8% |
| Section III. PHYSICAL DATA | |
| Boiling Point °C (°F.) Not known (above 100°C) | Specific Gravity (H₂O = 1) 0.9 -1.0 |
| Vapor Pressure (mm Hg.) Not applicable | Volatiles by volume (%) < 10% |
| Vapor Density (AIR =1) Not applicable | Evaporation Rate (Ether =1) Slight |
| Solubility in Water Slight | |
| Appearance and Odor Golden or pale brown, thick syrup at ambient temperature; becomes more fluid at higher temperatures. Hop oil component of extract has pungent hop odor. | |



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| Section IV. FIRE AND EXPLOSION HAZARD DATA | | | |
|--|--------------------------------------|-----------------------|-----------------------|
| Flash Point (Method used) Not known | Flammable Limits Not known | Le¹ | Ue^f |
| Extinguishing Media CO ₂ , Foam, Dry Powder | | | |
| Specific Fire Fighting Procedures None required. | | | |
| Unusual Fire and Explosion Hazards None known | | | |
| Section V. HEALTH HAZARD DATA | | | |
| Threshold Limit Value None known | | | |
| Effects of Exposure Non-toxic but mildly corrosive due to its low pH <u>Oral Ingestion</u> : Not known; ingestion of large amounts may be dangerous. <u>Eye contact</u> : Severe irritant. <u>Skin contact</u> : Prolonged contact may cause dermatitis in some individuals. <u>Inhalation</u> : Vapor generated in steam cleaning product spills may cause severe respiratory distress in some individuals. | | | |
| Emergency and First Aid Procedures <u>Eye contact</u> : Wash with copious amounts of water; seek medical attention. <u>Skin contact</u> : Remove with proprietary skin cleanser or rubbing alcohol (isopropanol). <u>Inhalation</u> : Transfer person to fresh air; seek medical attention and administer oxygen if necessary. | | | |
| Section VI. SPILL OR LEAK PROCEDURES | | | |
| Apply commercial absorbents to spill comparable to clean-up of lubricating oil. Scoop/shovel material in to disposal container. Flush area with hot water and detergent to remove final traces. Use adequate ventilation or a respirator if in a confined area. | | | |



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| Section VII. SPECIAL PROTECTION & PRECAUTION INFORMATION | | |
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| <p>Respiratory Protection (Specify type) None required for normal handling. When steam cleaning equipment or spills, use a respirator with an organic vapor cartridge.</p> | | |
| <p>Ventilation Normal none required; in case of spills/cleaning, use mechanical ventilation.</p> | <p>Local Exhaust <u>Normal ventilation</u> Mechanical (General)</p> | <p>Special _____</p> <p>Other</p> |
| <p>Protective Gloves Recommended cloth or rubber gloves.</p> | | <p>Eye Protection Use protective goggles or safety glasses.</p> |
| <p>Other Protective Equipment Use of low-grade protective clothing (e.g. rubber apron) recommended.</p> | | |
| <p>Precautions Taken in Handling and Storing Store at cool to ambient temperature in unopened original containers. Use opened containers as soon as possible. Minimum storage temperature -20°C (-4°F). Maximum storage temperature preferably less than 10°C (50°F)</p> | | |
| <p>Other Precautions None known</p> | | |
| <p>Disclaimer This MSDS is based on a limited review of files and standard toxicology handbooks. The information herein is supplied in good faith but without warranty of any kind. This information should be used only as a supplement to information already in your possession concerning this product and its use. The determination of whether and under what conditions your employees should handle and use the product is yours to make.</p> | | |