



# Tetra Iso-Extract

## MATERIAL SAFETY DATA SHEET

Section I. PRODUCTS AND SUPPLIER	
<b>Supplier's Name</b> S. S. Steiner, Inc. or Simon H. Steiner Hopfen GmbH or Steiner Hops Ltd.	<b>Emergency Telephone No.</b> USA: +1-509-453-4731 or Germany: +49-8751-8605-0 UK: +44-1992-572331
<b>Address</b> 1 West Washington Avenue, Yakima, Washington 98903, USA or Auhofstrasse 18, 84048 Mainburg, Germany or 319A High Street, Epping, Essex CM16 4DA, United Kingdom	
<b>Product Name</b> Tetra Iso-Extract	<b>Trade Name and Synonyms</b> Tetra, Tetrahydroiso-alpha-acid, Tetrahydroiso-humulones
<b>CAS No(s).</b> Not known	
<b>Chemical Family</b> Modified hop extract; organic; isomerized.	<b>Formula</b> Not applicable
Section II. COMPONENTS	
<b>Material or components</b>	<b>%</b>
A mildly alkaline, aqueous solution of the potassium salts of tetrahydroiso-alpha-acids derived by the hydrogenation and isomerization of the CO <sub>2</sub> extracted alpha-acids of hops.	Typically 10%
Section III. PHYSICAL DATA	
<b>Boiling Point °C (°F.)</b> Approximately 100°C (212°F)	<b>Specific Gravity (H<sub>2</sub>O = 1)</b> 1.02
<b>Vapor Pressure (mm Hg.)</b> Not applicable	<b>Volatiles by volume (%)</b> Not applicable
<b>Vapor Density (AIR =1)</b> Not applicable	<b>Evaporation Rate ( Ether =1)</b> Slight
<b>Solubility in Water</b> Miscible; will precipitate if acidified	<b>Solubilty in Alcohol</b> Miscible
<b>Appearance and Odor</b> A homogeneous, pale amber-colored, clear, mobile liquid; slight resinous, hop aroma; intensely bitter taste.	



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Section IV. FIRE AND EXPLOSION HAZARD DATA			
<b>Flash Point (Method used)</b> Not applicable	<b>Flammable Limits</b> Not applicable	<b>Le<sup>1</sup></b>	<b>Ue<sup>f</sup></b>
<b>Extinguishing Media</b> Not flammable			
<b>Specific Fire Fighting Procedures</b> None required.			
<b>Unusual Fire and Explosion Hazards</b> None known			
Section V. HEALTH HAZARD DATA			
<b>Threshold Limit Value</b> None known			
<b>Effects of Exposure</b> Non-toxic. <u>Oral Ingestion</u> : Not known; ingestion of large amounts probably dangerous. <u>Eye contact</u> : Severe irritant; may cause corneal inflammation. <u>Skin contact</u> : Prolonged contact may cause dermatitis in some individuals.			
<b>Emergency and First Aid Procedures</b> <u>Eye contact</u> : Wash with copious amounts of water; seek medical attention. <u>Skin contact</u> : Remove with proprietary skin cleanser or warm soapy water.			
Section VI. SPILL OR LEAK PROCEDURES			
Apply commercial absorbents to spill comparable to clean-up of lubricating oil. Scoop/shovel material into disposal container. Flush area with hot water and detergent to remove final traces.			



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<b>Section VII. SPECIAL PROTECTION &amp; PRECAUTION INFORMATION</b>		
<b>Respiratory Protection (Specify type)</b> None required for normal handling..		
<b>Ventilation</b> Normally none required.	<b>Local Exhaust</b> <u>Normal ventilation</u> Mechanical (General)	<b>Special</b> <hr/> <b>Other</b>
<b>Protective Gloves</b> Recommended cloth or rubber gloves.	<b>Eye Protection</b> Use protective goggles or safety glasses.	
<b>Other Protective Equipment</b> Use of low-grade protective clothing (e.g. rubber apron) recommended.		
<b>Precautions Taken in Handling and Storing</b> Store at cool or ambient temperature in unopened original containers. Use opened containers as soon as possible. Minimum storage temperature 10°C (50°F). Maximum storage temperature preferably less than 15°C (60°F)		
<b>Other Precautions</b> None known		
<b>Disclaimer</b> 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.		