



## Iso-Extract

### MATERIAL SAFETY DATA SHEET

<b>Section I. PRODUCTS AND SUPPLIER</b>	
<b>Supplier's Name</b> S. S. Steiner, Inc. <b>or</b> Simon H. Steiner Hopfen GmbH <b>or</b> Steiner Hops Ltd.	<b>Emergency Telephone No.</b> USA: +1-509-453-4731 <b>or</b> Germany: +49-8751-8605-0 UK: +44-1992-572331
<b>Address</b> 1 West Washington Avenue, Yakima, Washington 98903, USA <b>or</b> Auhofstrasse 18, 84048 Mainburg, Germany <b>or</b> 319A High Street, Epping, Essex CM16 4DA, United Kingdom	
<b>Product Name</b> Iso-Extract	<b>Trade Name and Synonyms</b> Isomerized Hop Extract, 'Iso', Post-fermentation Bittering, 'PFB'
<b>CAS No(s).</b> Not available	
<b>Chemical Family</b> Extract of hops; organic; isomerized.	<b>Formula</b> Not applicable
<b>Section II. COMPONENTS</b>	
<b>Material or components</b> An aqueous solution of the potassium salts of iso-alpha-acids derived by the isomerization of the CO <sub>2</sub> extracted alpha-acids of hops.	<b>%</b> Typically 20% or 30%
<b>Section III. PHYSICAL DATA</b>	
<b>Boiling Point °C (°F.)</b> Approximately 100°C (212°F)	<b>Specific Gravity (H<sub>2</sub>O = 1)</b> 1.065
<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; more soluble at pH 8 -10	<b>Solubility in Alcohol</b> Miscible
<b>Appearance and Odor</b> A homogeneous, pale amber-colored, clear, mobile liquid; slight hop aroma.	



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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 quantities may be dangerous <u>Eye contact</u> : Severe irritant; will 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 5°C (41°F). Maximum storage temperature preferably less than 15°C (59°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.		