



Tetra Concentrate

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 Tetra Concentrate	Trade Name and Synonyms
CAS No(s). Not available	Empirical Formula Contains mainly $KC_{20}H_{32}O_5$ & $KC_{21}H_{34}O_5$
Chemical Family Modified hop extract; organic; isomerized.	Molecular Weight Mainly 392 & 406 daltons
Section II. COMPONENTS	
Material or components	%
A purified, resinous preparation of the potassium salts of tetrahydroiso-alpha-acids. Derived via hydrogenation from CO_2 extracted α -acids of hops. Mostly contains co-, n- and ad- homologs. Also contains water.	Typically 75% K^+ salts of tetrahydroiso- α -acids
Section III. PHYSICAL DATA	
Boiling Point °C (°F.) Approximately 100°C (212°F)	Specific Gravity (H₂O = 1) 1.10 – 1.14
Vapor Pressure (mm Hg.) Not applicable	Volatiles by volume (%) Not applicable
Vapor Density (AIR =1) Not applicable	Evaporation Rate (Ether =1) Slight
Solubility in Water Mostly soluble; will precipitate if acidified	Solubility in Alcohol Mostly soluble in alcohol
Appearance and Odor A brown, semi-fluid resin; slight estery aroma; intense bitter taste.	



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Section IV. FIRE AND EXPLOSION HAZARD DATA			
Flash Point (Method used) Not applicable	Flammable Limits Not applicable	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. <u>Oral Ingestion</u> : Not known; ingestion of large amounts is probably dangerous <u>Eye contact</u> : Severe irritant; may cause corneal inflammation. <u>Skin contact</u> : Prolonged contact may cause dermatitis 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 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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Section VII. SPECIAL PROTECTION & PRECAUTION INFORMATION		
Respiratory Protection (Specify type) None required for normal handling..		
Ventilation Normally none required.	Local Exhaust <u>Normal ventilation</u> Mechanical (General)	Special <hr/> Other
Protective Gloves Recommended cloth or rubber gloves.	Eye Protection Use protective goggles or safety glasses.	
Other Protective Equipment Use of low-grade protective clothing (e.g. rubber apron) recommended.		
Precautions Taken in Handling and Storing Store at cool ambient temperature in unopened original containers. Use opened containers as soon as possible. Minimum storage temperature -10°C (14°F). Maximum storage temperature 25°C (77°F)		
Other Precautions None known		
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