



Polyphenol-Rich Hop Pellets

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 Polyphenol-Rich Hop Pellets	Trade Name and Synonyms Polyphenol-Rich Hop Pellets, Spent Hop Pellets
CAS No(s). Not available	Formula Not applicable
Chemical Family Natural Product; not applicable	Molecular Weight Not applicable
Section II. HAZARDOUS COMPONENTS	
Material or components	%
Compressed and pelletized hop powder produced from many different varieties of cultivated <i>Humulus Lupulus</i> containing cellulose, with residual hop resins and essential oils.	Variable
Section III. PHYSICAL DATA	
Boiling Point °C (°F.) Not applicable	Specific Gravity (H₂O = 1) Not applicable
Vapor Pressure (mm Hg.) Not applicable	Volatiles by volume (%) Essential Oils only, typically <0.5%
Vapor Density (AIR =1) Not applicable	Evaporation Rate (Ether =1) Not applicable
Solubility in Water Very slight	Viscosity (@ 20°C) Not applicable
Appearance and Odor Solid pellets measuring approximately ¼ inch in diameter by < 1 inch long. Color – various shades of pale green to brown depending on variety. Aroma – vegetative or grassy aroma varying in intensity depending on variety.	



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Section IV. FIRE AND EXPLOSION HAZARD DATA			
Flash Point (Method used) Not applicable	Flammable Limits Not applicable	Le^f	Ue^f
Extinguishing Media Water, foam, or CO ₂			
Specific Fire Fighting Procedures None required			
Unusual Fire and Explosion Hazards None known: very fine hop powder dust can form explosive mixtures with air particularly in enclosed tanks or vessels.			
Section V. HEALTH HAZARD DATA			
Threshold Limit Value None known			
Effects of Exposure None known			
Emergency and First Aid Procedures None known			
Section VI. SPILL OR LEAK PROCEDURES			
Normal procedures as for any non-hazardous agricultural product; bio-degradable and Acceptable at landfill sites.			



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Section VII. SPECIAL PROTECTION & PRECAUTION INFORMATION		
Respiratory Protection (Specify type) Dust mask are advisable, particularly if dust is generate.		
Ventilation Normal	Local Exhaust <u>Normal ventilation</u> Mechanical (General)	Special <hr/> Other
Protective Gloves Not applicable	Eye Protection Not applicable	
Other Protective Equipment Not applicable		
Precautions Taken in Handling and Storing Store at ambient or cool temperature Maximum storage temperature: 30°C (86°F)		
Other Precautions None known		
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