SAFETY DATA SHEET

Section 1: Identification

Product Name: Bittercube Cherry Bark Vanilla Bitters
Other Names: Bitters
Manufacturer: Bittercube
Manufacturer Address: 4828 W Lisbon Ave, Milwaukee WI 53210 USA
In emergency call 911.
For information about this SDS, use this contact phone#: (414) 207-6262
Recommended Usage: Bittercube Bitters are a concentrated food and beverage flavoring that are used in small amounts or dashes to flavor food dishes and drink mixes.
Usage Restrictions: Bittercube Bitters have never been consumed or used as a beverage, as they are unpalatable tasted in isolation.

Section 2: Hazard(s) Identification

Hazard Classification: 3 - Flammable Liquid
Signal Word: Warning
Hazard Statements: - Appearance: brown liquid. Flammable liquid and vapor. May cause central nervous system depression. Causes severe eye irritation. This substance has caused adverse reproductive and fetal effects in humans. Warning! May cause liver, kidney and heart damage. Target Organs: Kidneys, heart, central nervous system, liver

Precautionary Statements: Read label before use. Keep out of reach of children
Description of other hazards: None known

Section 3: Composition/ Information on Ingredients

Substance/Mixture: Mixture
Chemical Name: Aromatic Bitters
Common Name and Synonym: Bitters
Formulation: A blend of infused ethyl alcohol and water

Chemical Name	Synonym	CAS#	Conc.
Ethyl Alcohol	Alcohol	64-17-5	38%
Water	Water	7732-18-5	62%

Section 4: First-Aid Measures

General: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim

(no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.
After skin contact: Wash skin thoroughly with mild soap/water. Seek medical attention if ill effect or irritation develops.
After eye contact: Flush eyes well with large quantities of water for at least 15 minutes. Seek medical attention if required. - DO NOT apply neutralizing agents. Take victim to an opthamologist if irritation persists.
After inhalation: If overcome by exposure, remove victim to fresh air immediately. Seek medical attention if required.
After swallowing: Use product as directed. For large amounts ingested, seek medical attention.

Section 5: Fire-Fighting Measures

Suitable extinguishing agents: Carbon dioxide, "alcohol-type foam" dry chemical, water in deluge quantities, BC powder
Hazardous Combustion Byproduct: Upon combustion: CO and CO2 are formed. Reacts violently with many compounds e.g.: with (strong) oxidizers: (increased) risk of fire/explosion. Violent to explosive reaction with (some) acids.
Protection during fire-fighting: Heat/fire exposure: compressed air/oxygen apparatus
Special fire-fighting procedures: Vapors from this product may travel or move by air currents to an ignition source and flash back. Keep upwind. Shut down all possible sources of ignition. Water may be ineffective but use to keep fire-exposed containers cool. Keep run-off water out of sewers and water sources. Dike for water control. Use spray or fog nozzles. Cool containers exposed to flames with water from the side until well after the fire is out. Move container from fire area if it can be done without risk. If risk of water pollution occurs, notify appropriate authorities.
Unusual Fire and Explosion Hazards: Vapors from this product may travel or move by air currents to an ignition source and flash back.

Section 6: Accidental Release Measures

Spill and Cleanup Procedures: Shut off all ignition sources. Put on appropriate personal protective equipment as required. Cordon off spill area/stop leak if you can do it without risk. Do not touch or walk through spilled material. Provide adequate ventilation. Avoid breathing vapor. Move all containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements, confined areas. See section 1 for emergency contact information and section 13 for waste disposal.

Section 7: Handling and Storage

Handling: Avoid breathing vapour. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Storage: Store in accordance with local regulations. Eliminate all ignition sources. Separate from oxidizing materials. Keep tightly closed and sealed until ready for use. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Store at room temperature out of direct sunlight. Incompatible with strong bases and strong acids. Suitable packaging materials: stainless steel, aluminum, iron, copper, nickel, synthetic material, glass.

Section 8: Exposure Controls/Personal Protection

Chemical Name	OSHA PEL	OSHA PEL (ceiling)	ACGIH OEL (TWA)	
Ethanol	1000 ppm TWA	1900 mg/m3 TWA	1000 ppm	

Environmental exposure controls (for large spills): Prevent dispersion of material. Avoid discharge into drains, water courses or into the ground. Inform authorities if large amounts are involved. Do not flush into sewer.
Personal precautions: Avoid breathing vapors. Ventilate area. Shut off all sources of ignition. Wear suitable protective clothing as required.

Section 9: Physical and Chemical Properties

Form: Liquid, brown
Odor: Spices
Odor threshold: Not available
pH: Not available
Melting point/melting range: Not available
Boiling point/boiling range: 173.1°F or 78.4°C
Flash point: 84.2°F or 29.0°C
Evaporation rate: Not available
Flammability: Not available
Lower flammability or explosive limits: 3.3%, 67 g/m3
Upper flammability or explosive limits: 19%, 290 g/m3
Auto-ignition temperature: Not available
Vapor pressure: Not available
Vapor density: Not available
Relative density: Not available
Solubility in water: Yes

Section 10: Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product
Chemical stability: The product is stable
Conditions to avoid: Avoid all possible sources of ignition (spark or flame)
Incompatible materials: Highly reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition should not be produced.
Hazardous polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11: Toxicological Information

Acute toxicity: Ethanol (64-17-5): LD50 oral rat 10740 mg/kg (Rat; Experimental value, Rat; Experimental value) LD50 dermal rabbit > 16000 mg/kg (Rabbit) Water (7732-18-5) LD50 oral rat ≥ 90000 mg/kg
Potential routes of exposure/potential health effects
Skin: Causes skin irritation

Eye: Redness of the eye tissue. Lacrimation. On continuous exposure/contact: irritation of the eye tissue.
Inhalation: Exposure to high concentrations: Dry/sore throat, coughing, irritation of the respiratory tract, irritation of the nasal mucous membranes, respiratory difficulties, central nervous system depression, symptoms similar to those listed under ingestion
Ingestion: After absorption of high quantities: Risk of aspiration pneumonia, red skin, body temperature rise, damp/clammy skin, excited/restless, accelerated heart action, central nervous system depression, dizziness, narcosis, headache, drunkenness, nausea, vomiting, disturbed motor response, coordination disorders, visual disturbances, impaired concentration, delusions, disturbed sensation of pain, disturbances of heart rate, disturbances of consciousness, tremor, cramps/uncontrolled muscular contractions, dilated pupils
On continuous/repeated exposure/contact: Dry skin, gastrointestinal complaints, enlargement/affection of the liver, change in the hemogramme/blood composition, cardiac and blood circulation effects, high arterial pressure impairment of the nervous system, behavioural disturbances, mental confusion, disturbed tactile sensibility, tremor, affection of the bone marrow, affection of the endocrine system, weakening of the immune system.
Carcinogenic effects: Not classified
Mutagenic effects: Not classified. Based on available data, the classification criteria are not met.
Reproductive toxicity: Click here to enter text.
Sensitization: Not available
Target organs: Causes damage to organs (central nervous system, optic nerve) (oral, dermal)

Section 12: Ecological Information (non-mandatory)

Ecotoxicity: - Ethanol (64-17- 5): LC50 fish 1 14200 mg/l (96 h; Pimephales promelas; Nominal concentration) EC50 Daphnia 1 9300 mg/l (48 h; Daphnia magna) LC50 fish 2 13000 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) EC50 Daphnia 2 10800 mg/l (24 h; Daphnia magna) Threshold limit other aquatic organisms 1 65 mg/l (72 h;
Protozoa) Threshold limit algae 1 1450 mg/l (192 h; Microcystis aeruginosa; Growth rate) Threshold limit algae 2 5000 mg/l (168 h; Scenedesmus quadricauda; Growth rate) Water: Not harmful to fish (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia). Slightly harmful to algae (EC50 (72h): 100 - 1000 mg/l). Not harmful to bacteria (EC50 >1000 mg/l). Inhibition of activated sludge.
Mobility: 0.022 N/m (20°C)
Bioaccumulative potential - product: Ethanol (64-17-5)
Bioaccumulative potential - LogPow: -.031 (Experimental Value)
Bioaccumulative potential: Low potential for bioaccumulation (Log Kow < 4)

Section 13: Disposal Considerations (non-mandatory)

1. The generation of waste should be avoided or minimized where possible.
2. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
3. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor
4. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
5. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

6. Waste packaging should be recycled. Landfill should only be considered when recycling is not feasible.
7. This material and its container must be disposed of in a safe way.
8. Empty containers may retain some product residues.
9. Vapor from product residues may create a flammable atmosphere inside the container.

Section 14: Transport Information (non-mandatory)

UN Number: UN1197
UN Proper Shipping Name: Extracts, Liquid
Transport Hazard Class: 3 - Flammable Liquid
Packing Group Name: III
International Maritime Dangerous Goods (IMDG) Code: UN1197
Special Precautions: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15: Regulatory Information (non-mandatory)

US Federal Regulations: The Bureau of Alcohol, Tobacco and Firearms (Dept. of Treasury), regulates the production, procurement and use of ethyl alcohol products.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs): Not Listed
Clean Air Act, Section 602 Class I Substances: Not Listed
Clean Air Act, Section 602 Class II Substances: Not Listed
DEA List I Chemicals (Precursor Chemicals): Not Listed
DEA List II Chemicals (Essential Chemicals): Not Listed

Section 16: Other Information

To the best of our knowledge, the information contained herein is accurate. It does not represent a guarantee of the properties of the product and is furnished without warranty and acceptance of liability of any kind by Bittercube LLC. It characterizes the product with regard to appropriate safety precautions. Users should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and safety and health.

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