

**SECTION 1: IDENTIFICATION**

**Product Name:** -The Cocktail Experiment Blood Orange + Ginger Bitters  
**Other Names:** -Bitters  
**Manufacturer:** -The Cocktail Experiment LLC  
**Manufacturer Address:** -5800 One Perkins Place  
Baton Rouge, Louisiana 70808 USA  
**Emergency Telephone:** (800)222-1222  
**Recommended Usage:** -The Cocktail Experiment Blood Orange + Ginger 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:** -The Cocktail Experiment Blood Orange + Ginger Bitters have never been consumed or used as a beverage, as they are unpalatable tasted in isolation

**SECTION 2: HAZARD(S) IDENTIFICATION**

**Chemical Hazard Classification:** -3 – Flammable Liquid  
**Signal Word:** -Warning  
**Hazard Statement:** - Appearance: Orange liquid. Flammable liquid and vapor. May cause central nervous system depression. Causes severe eye irritation. Causes respiratory tract irritation. Causes moderate skin 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 Statement:** -Read label before use. Keep out of reach of children  
**Description of Other Hazards:** -None known

**SECTION 3: COMPOSITIONS / INFORMATION ON INGREDIENTS**

**Substance/Mixture:** -Mixture  
**Chemical Name:** -Blood Orange + Ginger Bitters  
**Common Name And Synonym:** -Bitters  
**Formulation:** -A blend of infused ethyl alcohol and water  
**Chemical Abstracts Service Number:** -Main Ingredient – Ethyl Alcohol – (64-17-5)

CAS #	Chemical Name	Percent
64-17-5	Ethyl Alcohol	40%
7732-18-5	Water	60%



**SECTION 4: FIRST AID MEASURES**

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**General:**

-Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored 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.

**Eye Contact:**

1. Flush eyes well with large quantities of water for at least 15 minutes
  2. Seek medical attention if required
- Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

**Inhalation:**

1. If overcome by exposure, remove victim to fresh air immediately.
2. Seek medical attention if required

**Skin:**

1. Wash skin thoroughly with mild soap/water
2. Seek medical attention if ill effect or irritation develops

**Ingestion:**

1. Use product as directed on label.
2. For large amounts, seek medical attention.



**SECTION 5: MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED**

**Symptoms injuries after 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.

**Symptoms/injuries after skin contact:**

- Slight irritation

**Symptoms/injuries after eye contact:**

- Redness of the eye tissue. Lacrimation. On Continuous Exposure/Contact: Irritation of the eye tissue.

**Symptoms/injuries after 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.

**Chronic symptoms:**

- On Continuous/Repeated Exposure/contact: Dry skin. Gastrointestinal complaints. Enlargement/affection of the liver. Change in the hemogram/blood composition. Cardiac and blood circulation effects. High arterial pressure. Impairment of the nervous system. Behavioral disturbances. Mental confusion. Disturbed tactile sensibility. Tremor. Affection of the bone marrow. Affection of the endocrine system. Weakening of the immune system.

**SECTION 6: FIRE-FIGHTING MEASURES**

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<b>Suitable Extinguishing Equipment:</b>	- Carbon dioxide, “alcohol-type foam” dry chemical, water in deluge quantities, BC powder
<b>Unsuitable Extinguishing Equipment:</b>	- Solid water jet ineffective as extinguishing medium. Upon combustion: CO and CO <sub>2</sub> are formed. Reacts violently with many compounds e.g.: with (strong) oxidizers: (increased) risk of fire/explosion. Violent to explosive reaction with (some) acids.
<b>Activity:</b>	
<b>Hazardous Combustion Byproduct:</b>	
<b>Protection during fire-fighting:</b>	-Heat/fire exposure: compressed air/oxygen apparatus.
<b>Special Fire-Fighting Procedures:</b>	-Vapors from this product may travel or move by air currents to an ignition source and flash back <ol style="list-style-type: none"><li>1. Keep upwind</li><li>2. Shut down all possible sources of ignition</li><li>3. Water may be ineffective but use to keep fire-exposed containers cool</li><li>4. Keep run-off water out of sewers and water sources</li><li>5. Dike for water control</li><li>6. Use spray or fog nozzles</li><li>7. Cool containers exposed to flames with water from the side until well after the fire is out</li><li>8. Move container from fire area if it can be done without risk</li><li>9. If risk of water pollution occurs, notify appropriate authorities</li></ol>
<b>Unusual Fire and Explosion Hazards:</b>	Vapors from this product may travel or move by air currents to an ignition source and flash back.

**SECTION 7: ACCIDENTAL RELEASE MEASURES**

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**Spill and Cleanup procedures:**

1. 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.
2. Provide adequate ventilation. Avoid breathing vapor.
  1. Move containers from spill area
  2. Use spark-proof tools and explosion-proof equipment
  3. Approach release from upwind
  4. Prevent entry into sewers, water courses, basements, confined areas
  5. See Section 1 for emergency contact information and Section 13 for waste disposal.

**SECTION 8: HANDLING & STORAGE**

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**Precautions for safe handling - Protective measures:**

-Avoid breathing vapor

**Precautions for safe handling - Advice on general occupational hygiene:**

-Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

**Precautions for safe handling - Conditions for safe storage including any incompatibilities:**

1. Store in accordance with local regulations
2. Eliminate all ignition sources.
3. Separate from oxidizing materials.
4. Keep tightly closed and sealed until ready for use.
5. Do not store in unlabeled containers.
6. Use appropriate containment to avoid environmental contamination.
7. Store at room temperature out of direct sunlight.
8. Incompatible with strong bases and strong acids
9. Suitable packaging materials: stainless steel, aluminum, iron, copper, nickel, synthetic material, glass.

**SECTION 9: EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>Osha Permissible Exposure Limit:</b>	-1000 ppm TWA (ethanol) -1900 mg/m <sup>3</sup> TWA
<b>ACGIH Threshold Limit Value:</b>	-1000 ppm
<b>NIOSH:</b>	-1000 ppm TWA (ethanol) -1900 mg/m <sup>3</sup> -TWA 3300 ppm IDLH
<b>Environmental exposure controls (for large spills):</b>	1. Prevent dispersion of material. Avoid discharge into drains, water courses or into the ground. 2. Inform authorities if large amounts are involved. Do not flush into sewer.
<b>Personal precautions:</b>	1. Avoid breathing vapors. 2. Ventilate area. Shut off all sources of ignition. 3. Wear suitable protective clothing AS REQUIRED.

**SECTION 10: PHYSICAL & CHEMICAL PROPERTIES**

<b>Appearance – Physical State:</b>	- Liquid
<b>Appearance – Color:</b>	- Orange
<b>Melting/freezing point:</b>	- Not Available
<b>Critical Temperature:</b>	- Not Available
<b>Odor:</b>	- Celery
<b>Odor Threshold:</b>	- Not Available
<b>pH:</b>	- Not Available
<b>Flash point:</b>	- 84.2°F or 29.0°C
<b>Burning Time:</b>	- Not Applicable
<b>Burning Rate:</b>	- Not Applicable
<b>Evaporation Rate:</b>	- Not Available
<b>Flammability (solid, gas):</b>	- Not Available
<b>Lower explosive limits (LEL):</b>	- 3.3%, 67 g/m <sup>3</sup>
<b>Upper explosive limits (UEL):</b>	- 19%, 290 g/m <sup>3</sup>
<b>Vapor pressure and density:</b>	- Not Available
<b>Specific Volume (ft<sup>3</sup>/lb):</b>	- Not Available
<b>Gas Density (lb/ft<sup>3</sup>):</b>	- Not Available
<b>Relative Density:</b>	- Not Available
<b>Solubility:</b>	- Not Available
<b>Solubility in water:</b>	- Yes
<b>Partition co-efficient: n-octanol/water:</b>	- Not Available
<b>Auto-ignition temperature:</b>	- Not Available
<b>Decomposition temperature:</b>	- Not Available
<b>SADT:</b>	- Not Available
<b>Viscosity:</b>	- Not Available

**SECTION 11: STABILITY AND REACTIVITY**

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- Reactivity:** - No specific test data related to reactivity available for this product
- Chemical Stability:** - The product is stable
- Possibility of hazardous reactions:** - Under normal conditions of storage and use, hazardous reactions will occur
- Conditions to avoid:** - Avoid all possible sources of ignition (spark or flame)
- Incompatibility with various substances:** - 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 12: TOXICOLOGICAL INFORMATION**

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- 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  $\geq$  90000 mg/kg
- Irritation/Corrosion:** - Causes skin irritation
- Sensitization:** - Not available
- Mutagenicity:** - Not classified. Based on available data, the classification criteria are not met.
- Carcinogenicity:** - Not classified
- Specific target organ toxicity (single exposure):** - May cause drowsiness or dizziness. Causes damage to organs (central nervous system, optic nerve)(oral, dermal)
- Specific target organ toxicity (repeated exposure):** - Not classified. Based on available data, the classification criteria are not met
- Potential acute health effects – eye contact:** - Redness of the eye tissue. Lacrimation. On continuous exposure/contact: Irritation of the eye tissue
- Potential acute health effects – 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
- Potential acute health effects – skin contact:** - Slight irritation



**Potential acute health effects –  
ingestion:**

**Potential chronic health effects –**

**General:**

- 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 hemogram/blood composition, cardiac and blood circulation effects, high arterial pressure impairment of the nervous system, behavioral disturbances, mental confusion, disturbed tactile sensibility, tremor, affection of the bone marrow, affection of the endocrine system, weakening of the immune system.



**SECTION 13: ECOLOGICAL INFORMATION**

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<b>Toxicity:</b>	- Ethanol (64-17- 5): LC50 fishes 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 fishes (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.
<b>Persistence and degradability:</b>	- Readily biodegradable in water. Biodegradable in the soil. No (test) data on mobility of the substance available.
<b>Mobility in soil-soil/water partition coefficient:</b>	- 0.022 N/m (20°C)
<b>Bio accumulative potential – Product/ingredient name:</b>	- Ethanol (64-17-5)
<b>Bio accumulative potential – LogPow:</b>	- -0.31 (Experimental Value)
<b>Bio accumulative potential:</b>	- Low potential for bioaccumulation (Log Kow < 4)

**SECTION 14: DISPOSAL CONSIDERATIONS**

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**Disposal Methods:**

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 15: TRANSPORT INFORMATION**

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<b>UN Number:</b>	- UN1169
<b>Un Proper Shipping Name:</b>	- Aromatic Extract
<b>Transport Hazard Class:</b>	- 3 – Flammable Liquid
<b>Packing Group Name:</b>	- III
<b>International Maritime Dangerous Goods Code (IMDG code):</b>	- UN1169
<b>Special Precautions</b>	- <b>Transport within user's premises:</b> 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 16: REGULATORY INFORMATION**

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- 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 (b) 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 17: OTHER INFORMATION**

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- General:** - To 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 The Cocktail Experiment LLC. It characterizes the product with regard to the 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.