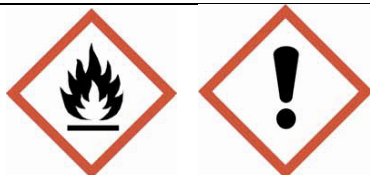


1. Product and Company Identification	
Company Name: American Ripener, LLC	Telephone: 1-800-338-2836
Address: 803 Pressley Road, Suite 106 Charlotte, North Carolina 28217	Transportation Emergencies: Infotrac 1-800-535-5053 Outside the US 011-352-323-3500
USA	(collect calls accepted)
Substance Name: Ripener 1 Concentrate Other means of Identification: Ethanol, Ripener 1 Concentrate	E-mail: info@ripening.com
Recommended use or Chemical and Restrictions: In an ARCO or Ultra Ethylene generator for fruit ripening, tobacco and citrus degreening for industry use only in commercial ripening rooms.	Contact Person: Karen-Ann Christenbery

2. Hazards Identification					
Health		Environmental		Physical	
Inhalation:	May cause respiratory track irritation	Ecological Information:	See section 12	Liquid Clear	Alcohol like odor
Skin Irritation:	Prolonged or repeated skin contact with liquid may cause defatting resulting in dry, redness and possible blistering	Chronic Toxicity:	Not applicable	Highly Flammable Liquid and Vapor Category 2	NFPA Fire Rating #3
Ingestion:	Aspiration hazard if swallowed, can enter lungs and cause damage		Should not be released into the environment. Prevent further leakage or spillage if safe to do so		
Eye:	Causes eye irritation				

Hazard Statements:	Signal Word:
Highly Flammable Liquid and vapor	Danger
Eye Irritation	Warning
Skin Irritation	Warning
Skin Sensitizers	Warning



3. Composition/Information on Ingredients				
Chemical Name	Cas #	ENCIS #	Reach Registered	Concentration % Weight
Ethanol; ethyl alcohol	64-17-5	200-578-6	Yes	60-100
Propan-2 ol; Isopropanol; Isopropyl Alcohol	67-63-0	200-661-7	Yes	CBI
Ethyl Acetate	141-78-6	205-500-4	Yes	CBI

4. First Aid Measures	
Inhalation:	<input type="checkbox"/> Move person to fresh air <input type="checkbox"/> If person is not breathing, call 9-1-1 or ambulance, then give artificial respiration, preferably mouth to mouth if possible. <input type="checkbox"/> Call a poison control center or doctor for further treatment advice
Skin Contact:	<input type="checkbox"/> Remove contaminated clothing <input type="checkbox"/> Rinse skin immediately with plenty of water for 15-20 minutes <input type="checkbox"/> Call a poison control center or doctor for further treatment advice
Eye Contact:	<input type="checkbox"/> Hold eye open and rinse slowly and gently with water for 15-20 minutes <input type="checkbox"/> Remove contact lenses if present, after the first 5 minutes then continue to rinse <input type="checkbox"/> Call a poison control center or doctor for further treatment advice
Ingestion:	<input type="checkbox"/> Call a poison control center for doctor immediately for treatment advice <input type="checkbox"/> Have person sip water if able to swallow

	<input type="checkbox"/> Do not induce vomiting unless instructed by the poison control center or treating doctor <input type="checkbox"/> Do not give anything by mouth to an unconscious person
Notes for Doctor:	<input type="checkbox"/> None

5. Fire Fighting Measures	
Extinguishing Media and fire Fighting Procedures:	Foam, water Spray, (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may be suitable for extinguishing fires involving this type of product depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists. Procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials" Eighth Edition (1984)
Special Hazards:	Use dry chemical, foam or carbon dioxide, water may be ineffective, but water should be used to keep fire-exposed containers cool. If a leak or spill has ignited, use water spray to disperse the vapors and to protect personnel attempting to stop a leak. Water spray may be used to flush spills away from exposure. Minimize breathing gases, vapors, fumes or decomposition product. Use supplied air breathing equipment for enclosed or confined spaces or otherwise needed. This liquid is volatile and gives off invisible vapors, either the liquid or vapor may settle into low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.
Harmful Combustion Products:	Carbon Monoxide and Carbon Dioxide will be formed as a bi-product of combustion.
Storage Conditions:	Keep product away from ignition sources such as heat, sparks, pilot lights, static electricity, and open flames.
Note:	The inclusion of the phrase "Water may be ineffective" is to indicate that although water can be used to cool and protect exposed materials, water may not extinguish the fire unless under favorable conditions by experienced fire fighters trained in fighting all type of liquid fires.
Classification:	Highly Flammable Liquid Category 2 (NFPA fire rating #3)
Flash Point:	12° C (53.6° F) Closed cup
Flammable Limits in Air:	1.2%-21.2% by volume
Auto ignition Temperature:	Determined not to have an Auto-ignition temperature below 400 C (725 F)
Unusual Fire and Explosion Hazards:	<input type="checkbox"/> Insensitive to impact <input type="checkbox"/> Unlikely to accumulate static charge <input type="checkbox"/> Flashback along vapor trail may occur <input type="checkbox"/> Vapors may explode if ignited in an enclosed area

6. Accidental Release Measures	
Personal Precaution:	Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breath vapors or spray mist. Material cans create slippery conditions.
Non Emergency Personnel:	Move away from the area of spill or fire preferable up wind or far enough away from the smoke/vapor cloud.
Emergency Responders:	Use appropriate equipment for the surrounding area fire. Self-contained breathing apparatus may be required.
Environmental Precautions:	Keep away from heat, sparks and open flames. Should not be released into the environment. Prevent further leakage or spill if safe to do so.
Methods & Materials for Containment/Cleanup:	Soak up with inert absorbent material and dispose of as hazardous waste.
Other information:	Keep away from heat, sparks and flames
Reference to other Sections:	See section 7 for safe handling precautions and section 8 for personal protective equipment.

7. Handling and Storage	
Precautions for Safe Handling:	Provide sufficient air exchange and/or exhaust in works rooms. Wear personal protective gear; ensure all equipment is electrically grounded before beginning transfer operations. Take precautionary measures against static discharge. Avoid contact with sparks, open flames and oxidizing materials. Do not smoke while using this product.
Protective Measures:	Advice on protection against fire and explosion: use explosion proof equipment.
Fire Prevention:	Keep away from heat, sparks and flames
Aerosol & Dust Generation Prevention:	Non applicable
Environmental Prevention:	No data available
Safe Storage:	Store containers tightly closed in a cool; dry well ventilated and locked storage room in accordance with local fire codes.
Special End Use:	The ethylene generated by the use of this product is a simple asphyxiant at high concentration and is flammable. The lower explosive limit for ethylene is 2.7 % (27000 PPM)

8. Exposure Controls/Personal Protection			
Exposure Controls:	Follow all manufactures instructions		
Engineering Controls:	Use in well-ventilated area. When necessary, a system of local or general exhaust is recommended to keep employee exposures below allowable exposures limits. When transferring product from metal container, ensure that container is grounded.		
Inhalation:	Under normal conditions, the use of this product should not require respiratory protection. Whenever conditions warrant respirator, use a respiratory program that meets or exceeds 29 CFR 1910.134 of OSHA or ANSI Z88.2 requirements must be followed.		
Eye and Face Protection:	Use chemical/splash safety goggles when eye contact is possible.		
Skin Protection:	Use chemical-resistant gloves such as rubber, neoprene, or vinyl. When skin contact is possible, wear long-sleeved shirt, long pants, socks, shoes, and head and face protection.		
Hygiene Measures:	Wash hands immediately after handling products and before all breaks		
Other protective measures:	An eyewash and safety showers should be nearby, unobstructed and ready for use.		
Exposure Limits	Ethanol	Ethyl Acetate	Isoproanol
OSHA PEL:	1000 PPM	400 PPM	400 PPM
ACGIH TLV:	1000 PPM	400 PPM	200 PPM (TWA) 400 PPM (STEL)

9. Physical and Chemical Properties	
Appearance:	Clear liquid
Odor:	Alcohol like
Odor Threshold:	NA
pH:	NA
Melting Point/Freezing Point:	-114.1°C (-173.4°F)
Initial Boiling Point:	78.3°C (173.0°F)
Evaporation Rate:	1.7
Flash point Closed Cup	12°C (53.6°F)
Flammability:	Upper 21.2 %/Lower 1.2 %
Vapor Pressure:	44.6 mm Hg @ 20°C (68°F)
Vapor Density: Air =1	1.59
Specific Gravity: H2O= 1 @ 20°C	0.793 @ 20°C (68°F)
Solubility:	Completely Miscible
Auto-Ignition Temperature:	Determined not to have an auto ignition temperature below 400°C (752°F)
Coefficient of water/oil distribution:	-0.31
Viscosity:	1.49 @ 20°C (68°F)

10. Stability and Reactivity	
Reactivity:	Stable at normal temperature and pressure
Chemical Stability:	This product is stable
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur
Conditions to Avoid:	Avoid contact with heat, flame, sparks or other sources of ignition. Contact with acetyl chloride or other strong agents may results in a violent reaction.
Incompatible Materials:	Strong oxidizing agents, incompatible with acids and halogenated compounds.
Hazardous Decomposition Products:	Products of combustion may contain Carbon Monoxide and Carbon Dioxide. Not expected to decompose under normal conditions.
Storage:	Store containers tightly closed in a cool; dry well ventilated and locked storage room in accordance with local fire codes.

11. Toxicological Information	
Acute Toxicity:	Ethanol: Oral Rat LD50 = 7060 Mg/Kg BWT Inhalation Rat LC 50 = 20000 ppm 10 Hr. Ethyl Acetate: Oral Rat LD50 = 5620 Mg/Kg Inhalation Rat LC 50 = 200 Mg/l 1 Hr. Isopropyl Alcohol: Oral Rat LD50 = 4700 Mg/Kg Inhalation Rat LC 50 = 19000 ppm 8 Hr. Skin Rabbit LD50 = 12870 Mg/Kg
Carcinogenicity:	Ethanol: The international agency for Research on Cancer (IARC) has determined alcoholic beverages are carcinogenic to humans and the occurrence of malignant tumors of the oral cavity, pharynx, larynx esophagus and liver is causally related to the consumption of alcoholic beverages in humans. The American Conferences of Governmental Industrial Hygienist (ACGIH) list ethyl alcohol as A4. Not classified as Human Carcinogen. EPA review of available literature indicates that carcinogenic effects are not expected from the industrial use of ethanol. Ethyl Acetate: Not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification. Isopropyl Alcohol: No
Reproductive Toxicity:	Ethanol: Excessive consumption of alcoholic beverages during pregnancy can cause fetal alcohol syndrome. The development of physical and mental manifestation in the offspring: it may also cause defects in the central nervous system, heart, kidney and limbs. Moderate consumption can be associated with reduced birth weight and behavioral defects. Ethyl Acetate: Not available Isopropyl Alcohol: Slight effects on reproductive function have been noted in male animals after administration of large oral doses. Levels of exposure that demonstrated no effects in laboratory animals are very high when compared to human exposure under normal use in the workplace.
Repeated Dose Toxicity:	Ethanol: Exposure of over 1000 ppm may cause headache, drowsiness and lassitude, loss of appetite, inability to concentrate and throat irritation.
Note:	Ethanol is not toxic by OSHA criteria. Given that OSHA has established the threshold limit value at 1000 ppm (8 hr. time weighted average), the human risk to ethanol in an industrial environment appear to be minimal. See section 2 for additional potential Health Effects.

12. Ecological Information	
Aquatic Toxicity:	Ethanol: Has been shown to be practically non-toxic in tests. LC50 Rainbow trout (salmo gairdneri): 13,000 ppm. LC50 Fathead Minnow (pimephales promelas) 14,000 ppm. Ethyl Acetate: Exhibits low acute toxicity to aquatic organisms. Fish (salmo gairdneri) 96 hr. LC50 = 230 ppm. Fish (pimephales promelas) 96 hr LC50 = 230 ppm, Crustacean (Daphia magna) 48 hr. EC50 = 717 ppm. Mollusc (Lymnea stagnalis) 48 hr. EC50 = 1100 ppm. Isopropyl Alcohol: Has been shown to be practically non-toxic in tests. LC50 Fathead Minnow (pimephales promelas) 6,550 ppm. EC50 Daphia = 2280 ppm.
Environmental Fate:	Ethanol: Degradations: When spilled on land ethyl alcohol is apt to volatilize, biodegrade, and/or leach into the groundwater. It is anticipated, based on its physical properties that water will serve as the terminal media. Based on these factors, it is anticipated that ethyl alcohol will neither absorb to soil nor bio concentration aquatic organisms. Once in water, photolysis, hydrolysis, and biodegradation is anticipated to occur. Ethyl Acetate: Was "readily biodegradable" when tested according to OECD Guidelines 301D. Ready Biodegradability: Closed Bottle Test and had "100% degradation" when tested according to OECD Guidelines 303A "Simulation Test - Aerobic Sewage Treatment: Coupled Unit Test. Similar results were noted in numerous (at least 10) other tests for aerobic biodegradation. The BODS/COD ratio was 0.81 when tested under aerobic conditions. The single testing under aerobic conditions indicated 100% degradation after 4 days. These data indicate that substantial biodegradation of ethyl acetate takes place rapidly under a variety of conditions. Isopropyl Alcohol: Relatively biodegradable
Bio accumulative Potential:	Will not occur.

13. Disposal Considerations	
Waste Classification:	D listed Characteristic D001 USEPA 40 CFR 261.21-24 Resource Conservation and Recovery Act (RCRA)
Waste from residues/unused products:	In accordance with local and national regulations, do not contaminate ponds, waterways or ditches with chemical or used containers. The product should not allow to enter drains, water course or the soil.
Unclean Empty Package:	Do not burn, or use cutting torch on the empty bottles. Triple rinse containers. Can be offered for recycling, re-conditioning or puncture.
Notes:	Handling and storage see section 7 Exposure control/personal protections see sections 2 & 8

14. Transport Information	
Proper Shipping Name:	Flammable Liquid N.O.S. (Contains Isopropyl Alcohol and Ethanol)
DOT Class Hazard:	3
UN ID:	UN 1993
Packing Group:	PG II
Labels:	Flammable Liquid
Marine Pollutant:	No
Notes:	None

15. Regulatory Information	
WHIMS:	Class B/2; Class D/2/B
OSHA:	Hazardous Chemical
TSCA:	Listed
SARA 313:	Not listed
SARA 311 and 312:	Fire hazard and acute/chronic health hazard
California Prop 65:	Ethanol causes developmental toxicity (as in alcoholic Beverages)
State:	Ingredients are found in the following states right-to-know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts
CERCLA:	Not listed

16. Other Information

All statements, technical information and recommendations on this Safety Data Sheet are believed to be accurate and were obtained from sources currently available to us that we believe to be reliable. American Ripener, LLC make no warranty, expressed or implied, with respect to this information regarding its accuracy. Some information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The conditions or methods of handling, storage, use or disposal of this product are beyond our control and may be beyond our knowledge. Therefore, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use or disposal of this product. User should make their own investigations to determine the suitability of the information for their particular purposes and should know and comply with all applicable rules, regulations and laws relating to this product.

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For industry use only

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazards information as required on the pesticide label.

Caution: Keep out of reach of children
Caution: Not intended for human consumption

Creation Date: 10/11/12

Contact: American Ripener, Manager