

MATERIAL SAFETY DATA SHEET

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name Ethy-Ripex™		[WHMIS Classification] NA
Product Use: Refill for Catalytic Generator : For producing Ethylene Molecules to used in Fruit Ripening, De greening of Citrus Fruits and Tobacco Strictly to be used for INDUSTRIAL PURPOSE in commercial Ripening Chambers/Rooms.		
Manufacturer's Name BENZ-O-CHEM		
Street Address # 389, 10 th Cross, 4 th Phase, Peenya Industrial Area		
CITY:: BENGALURU	COUNTRY: INDIA	
Postal Code 560 058		
Date MSDS Prepared September 2014	MSDS Prepared By : BENZ-O-CHEM	Phone Number 080 41172132

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients (<i>specific</i>)	%
Active Ethylene molecules	60-90 %
Ethyl esters	1-5 %
Propylene molecules	1-3%
Stabilizer esters	0.5-1.5%

SECTION 3 — HAZARDS IDENTIFICATION

Warning: Flammable liquid, burns with visible/barely visible flame. May irritate eyes and upper respiratory tract. Also may affect central nervous system.
Potential Health Effects Routes of entry: Skin contact/ Eye Contact/ Inhalation/ Ingestion
Effects of acute exposure to Product: Could cause eye and upper respiratory tract irritation. Short term exposures beyond 1000 ppm due to inhalation can cause headaches, eye, nose and throat irritations, due to effects on the central nervous system. Long term exposures could lead to dizziness, drowsiness, leading to difficulty in concentration as well as gastrointestinal problems like nausea/ vomiting.
SKIN: Creates dryness, cracking and irritation. : EYE: Causes pain, irritation and reflex eyelid closure due to foreign body sensation. Temporary stinging and tearing effects will be felt but will not produce any adverse effects. Acute ingestion may result in impaired colour perception.

SECTION 4 — FIRST AID MEASURES

Skin Contact: Remove contaminated clothing. Rinse skin with large quantities of water for at least 20-30minutes.
Call the nearest available physician for further treatment procedures.

Eye Contact: Hold eyelids open and wash the affected eye/eyes with a gentle stream of water for at least for 15 minutes or until the irritation reduces to minimum level
Call doctor for treatment procedure to be carried out.

Inhalation: Move affected person to fresh air. If person is not breathing call for an AMBULANCE, and perform artificial respiration preferably mouth to mouth.

SECTION 5 — FIRE FIGHTING MEASURES

Flammable	YES , Flammable when exposed to heat ,naked flame,sparks , and when contacted with oxidizing agents.	
Means of Extinction	Use foam, dry powder Carbon-di-oxide gas. Closed containers could be cooled by water spray but is not an effective extinguishing agent.	
Flashpoint (° C) and Method	Upper Flammable Limit (% by volume) 14% by volume	Lower Flammable Limit (% by volume) 3% by volume
Autoignition Temperature (°C) Above 415 deg C	Explosion Data — Sensitivity to Impact Not sensitive to impact	Explosion Data — Sensitivity to Static Discharge Remote possibility of static accumulation . Vapour could explode on ignition in enclosed area.
Hazardous Combustion Products: Could produce Carbon monoxide, and Carbon Dioxide, which can lead to asphyxiation		

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures

Ensure sufficient ventilation in the area. All sources of heat, electricity and ignition should be removed.
Wear personal protective gear and use copious water spray, foam, to reduce vapour concentration .
Collect spilled material and use suitable absorbent seal in containers for disposal.

SECTION 7 — HANDLING AND STORAGE

Keep away from heat, sparks, oxidizing agents. While transferring ensure grounding to avoid static charge accumulation.

Store in dry safe area with firefighting equipment.

Always wear suitable helmets, masks ,chemical resistant gloves, long sleeved shirts, long pants, socks, shoes, eye protection.

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits : ACGIH TLV 1000 ppm
Specific Engineering Controls <i>The area of usage should have efficient forced ventilation/exhaust system .Airconditioners and humidity controls are to be provided. Liquid transfers should be done with grounding to ensure static discharge.</i>
Personal Protective Equipment As mentioned in section 7

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid	Odour and Appearance: Fruity sharp odour	Odour Threshold (ppm) not applicable
Specific Gravity: 0.795 -0.820	Vapour Density (air = 1): 1.66 (average)	Vapour Pressure (mmHg): 54.8 @ 20 deg C(average)
Evaporation Rate :1.75	Boiling Range (° C): 80-84 deg C	Freezing Point (° C): -122 deg C

pH not applicable	Coefficient of Water/Oil Distribution: 0.33	[Solubility in Water] :soluble
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SECTION 10 — STABILITY AND REACTIVITY

Chemical Stability	YES
Incompatibility with Other Substances <input type="checkbox"/> Yes	If yes, which ones? Oxidising agents such as Potassium Permanganate, Peroxides, acetyl chlorides etc;
Reactivity, and under what conditions?	Normally stable in air.
Hazardous Decomposition Products	Does not decompose on its own

SECTION 11 — TOXICOLOGICAL INFORMATION

Effects of Acute Exposure This formulated product has not been tested from the point of view of Toxicity. However all the components of the formulated product have been investigated and found non toxic to human beings. However the product can cause irritation depending on quantities inhaled.		
Effects of chronic exposure Not Available		
Irritancy of Product		
Skin sensitization	Causes mild irritation	Respiratory sensitization
Carcinogenicity-IARC Carcinogen	Not Classified as Human	Carcinogenicity - ACGIH A4
Reproductive toxicity	Not Available	

SECTION 12 — ECOLOGICAL INFORMATION

[Aquatic Toxicity] The product in general is not toxic to Aquatic animals. However mild toxicity could occur from the ester components in the formulation.

SECTION 13 — DISPOSAL CONSIDERATIONS

Waste Disposal All disposal should be done as per prevailing laws to protect environment.

SECTION 14 — TRANSPORT INFORMATION

Product Name: ETHYRIPEX, FLAMMABLE LIQUID Use protective gear while handling	
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SECTION 16 — OTHER INFORMATION

All the information, recommendations in this MSDS have been incorporated from very reliable sources accessible to us. We make no warranty, express or implied, with respect to this information regarding its accuracy. Some of the information declared are on the basis of conclusions derived from sources of allied group/family of chemicals. The product should be handled with extreme care and precautions advised. Non compliance could result in accidents/ mishaps, for which 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 usage, storage or disposal of this product. Users should study the various conditions, methods of safe handling to suit their activity and follow all relevant rules/ regulations while using this product.

STRICTLY FOR INDUSTRIAL USE ONLY, IN CATALYTIC GENERATORS TO PRODUCE ETHYLENE.

ETHY RIPEX IS A REGISTERED PROPRIETARY FORMULATION OF BENZO CHEM, BANGALORE, INDIA

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