APEX FLAVORS, INC.

SAFETY DATA SHEET.



Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code(s) 489BEV, 489TTB

Product name COCONUT LIME TYPE EXTRACT, NATURAL WONF

UN/ID No 1197

Recommended use of the chemical and restrictions on use
Recommended Use
Uses advised against
No information available

Manufacturer Apex Flavors, Inc.

1361 Brass Mill Rd.

Suite E

Belcamp, MD 21017 (410) 565-6600

Emergency telephone

Chemtrec: 1-800-424-9300 for US/ Outside US Chemtel 813-248-0585

2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2A
Skin Sensitization	Category 1
Carcinogenicity	Category 1A
Flammable liquids	Category 2

GHS Label elements, including precautionary statements

Emergency Overview

Danger

Hazard Statements

Causes serious eye irritation May cause an allergic skin reaction May cause cancer Highly flammable liquid and vapor



Appearance clear Physical state liquid Odor Coconut lime

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Specific treatment (see .? on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention IF ON SKIN: Wash with plenty of soap and water

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

- · Harmful to aquatic life with long lasting effects
- · Toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
ETHYL ALCOHOL	64-17-5	50-90%	*
GLYCERINE	56-81-5	20-30%	*
LIMONENE	5989-27-5	<1	*
PINENES	80-56-8	<1	*

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water.

Inhalation Move to fresh air.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms/effects, acute and delayed

Main Symptoms Hives.

Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact none. **Sensitivity to Static Discharge** Yes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Environmental precautions

Environmental precautions Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in

low areas.

Methods and materials for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible productsNone known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure GuidelinesThis product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
ETHYL ALCOHOL	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900	IDLH: 3300 ppm
64-17-5		mg/m³	TWA: 1000 ppm TWA: 1900
		(vacated) TWA: 1000 ppm	mg/m³
		(vacated) TWA: 1900 mg/m ³	
GLYCERINE	-	TWA: 15 mg/m³ mist, total	
56-81-5		particulate TWA: 5 mg/m³ mist,	
		respirable fraction	
		(vacated) TWA: 10 mg/m³ mist,	
		total particulate (vacated) TWA: 5	
		mg/m ³ mist, respirable fraction	
PINENES	TWA: 20 ppm	-	
80-56-8			
CITRAL	TWA: 5 ppm inhalable fraction	-	
5392-40-5	and vapor		
	S*		
METHYL N-AMYL KETONE FCC	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m ³	IDLH: 800 ppm
(2-Heptanone)	1 "	(vacated) TWA: 100 ppm	TWA: 100 ppm TWA: 465 mg/m ³
110-43-0		(vacated) TWA: 465 mg/m ³	

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962

(11th Cir., 1992).

Exposure controls

Engineering Controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection If splashes are likely to occur, wear:.

Skin and body protection Chemical resistant apron.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state liquid
Appearance clear
Odor Coconut lime
Color Pale yellow

<u>Property</u> <u>Values</u> <u>Method</u>

pH No information available

Melting/freezing pointFCC MethodBoiling point/boiling rangeFCC MethodFlash Point27 °C / 80 °FClosed cup

Evaporation rate
No information available

Flammability Limits in Air
Upper flammability limit No information available

lower flammability limit

No information available

Vapor pressure mm Hg 20°CNo information availableVapor densityNo information available

Specific Gravity @ 25C 0.9072 - 0.9272 FCC Method Specific Gravity @ 20C 0.9102 - 0.9302 FCC Method Patractive Index 1.3590 to 1.3780 FCC Method

Refractive Index 1.3580 to 1.3780 FCC Method **Water solubility** Practically insoluble

Solubility in other solvents

Partition coefficient: n-octanol/water

No information available
No information available

Autoignition temperature No information available No information available

Decomposition temperatureNo information availableViscosity, kinematicNo information availableNo information availableViscosity, dynamicNo information available

Explosive properties

Oxidizing Properties

No information available
No information available

Other information

Softening point
Molecular Weight
VOC Content(%)
Density VALUE
No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information Product does not present an acute toxicity hazard based on known information

Inhalation There is no data available for this product.

Eye contact There is no data available for this product.

Skin contact There is no data available for this product.

Ingestion There is no data available for this product.

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
ETHYL ALCOHOL	7060 mg/kg (Rat)	=	124.7 mg/L (Rat)4 h
64-17-5			- ' '
GLYCERINE	=	10 g/kg (Rabbit)	570 mg/m³(Rat)1 h
56-81-5			
PINENES	2100 mg/kg (Rat)	5000 mg/kg (Rat)	-
80-56-8			

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

SensitizationNo information available.Germ Cell MutagenicityNo information available.

Carcinogenicity This product contains one or more substances which are classified by IARC as

carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly

carcinogenic to humans (Group 2B).

Chemical Name	ACGIH	IARC	NTP	OSHA
ETHYL ALCOHOL	A3	Group 1	Known	X
64-17-5				
LIMONENE		Group 3		
5989-27-5		•		

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity

Specific target organ systemic toxicity (single exposure)

toxicity (single exposure)
Specific target organ systemic

toxicity (repeated exposure)
Chronic toxicity

No information available. No information available.

No information available.

Chronic toxicity

May cause adverse liver effects. Contains a known or suspected reproductive toxin.

Blood, Central nervous system, Eyes, Kidney, Liver, Reproductive system, Respiratory

system, Skin.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

. mg/kg mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

11.95085% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	log Pow
ETHYL ALCOHOL	-0.32
64-17-5	
GLYCERINE	-1.76
56-81-5	
PINENES	4.1
80-56-8	

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number D001

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status	
ETHYL ALCOHOL 64-17-5	Toxic Ignitable	
LIMONENE 5989-27-5	Toxic	

14. TRANSPORT INFORMATION

DOT/ADR

UN/ID No 1197

Proper shipping name EXTRACTS, FLAVOURING, LIQUID

Hazard class 3
Packing Group II
ERG Code 127

ICAO/IATA

UN/ID No 1197

Proper shipping name EXTRACTS, FLAVOURING, LIQUID

Hazard class 3
Packing Group ||

IMDG / IMO

UN/ID No 1197

Proper shipping name EXTRACTS, FLAVOURING, LIQUID

Hazard class 3
Packing Group

15. REGULATORY INFORMATION

International Inventories

Complies **TSCA DSL/NDSL** Complies **EINECS/ELINCS** Complies Complies **ENCS** Complies **IECSC KECL** Complies **PICCS** Complies Complies **AICS**

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard no
Chronic Health Hazard no
Fire Hazard Yes
Sudden Release of Pressure Hazard no
Reactive Hazard no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65	
ETHYL ALCOHOL - 64-17-5	Carcinogen	
	Developmental	

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
ETHYL ALCOHOL 64-17-5	X	X	Х
GLYCERINE 56-81-5	X	X	Х
PINENES 80-56-8	X	X	Х
P-CYMENE 99-87-6		X	Х

U.S. EPA Label information

16. OTHER INFORMATION						

NFPA Health Hazard 2 Flammability 4 Instability 0 Physical and chemical hazards *

HMIS Health Hazard 2 Flammability 4 Physical Hazard 0 Personal protection b

Revision Date 13-Jun-2017

Revision Note No information available

Revision# 1

WARNING/DISCLAIMER:

Our ingredients have not been tested, nor have they been determined safe, for inhalation or use in any electronic smoking devices, electronic nicotine delivery systems, electronic cigarettes, or other similar devices (collectively "E-Cigarettes") or in any E-Liquids used with E-Cigarettes. By receiving Apex Flavors, Inc ingredients, the recipient confirms that they will not use these ingredients in connection with the manufacture and distribution of E-Cigarettes, E-Liquids or any component thereof. WE DISCLAIM, TO THE FULLEST EXTENT PERMITTED BY LAW, ALL WARRANTIES, EXPRESS OR IMPLIED, and disclaim all liability in connection with the use of our ingredients in connection with E-Cigarettes and E-Liquids. All such risks are assumed by you and the user.

Disclaimer

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