



SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: LEMON EXTRACT IMITATION

Other means of identification

SDS number: 000000068078

Pack Codes 900023548, 901216569

Recommended use and restriction on use

Recommended use: Food Ingredient

Restrictions on use: For Manufacturing Use Only

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: McCormick and Company, Inc
Address: 24 Schilling Road, Suite 1
Hunt Valley, Maryland 21031
USA

Telephone: (410) 771-7500

Fax: (410) 527-6442

Emergency telephone number: 1-800-424-9300 (Chemtrec - North America)
001-703-527-3887 (Chemtrec - International)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids Category 3

Health Hazards

Serious Eye Damage/Eye Irritation Category 2A

Unknown toxicity - Health

Acute toxicity, oral 2.37 %

Acute toxicity, dermal 2.37 %

Acute toxicity, inhalation, vapor 2.6 %

Acute toxicity, inhalation, dust 30.97 %
or mist

Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement: Flammable liquid and vapor.
Causes serious eye irritation.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting] equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling.

Response: 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 (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. In case of fire: Use alcohol resistant foam to extinguish. Use carbon dioxide to extinguish. Use dry chemical powder to extinguish. Use water to extinguish.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%) [*]
Ethyl Alcohol	64-17-5	20 - <50%
Trade Secret	Trade Secret	0.1 - <1%

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

Inhalation: Move to fresh air.



Skin Contact:	Get medical attention if symptoms occur. Take off immediately all contaminated clothing. Rinse skin with water [or shower].
Eye contact:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
Ingestion:	Rinse mouth thoroughly.
Personal Protection for First-aid Responders:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Most important symptoms/effects, acute and delayed

Symptoms:	No data available.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Get medical attention if symptoms occur.
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5. Fire-fighting measures

General Fire Hazards:	Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.
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Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO2, dry chemical, or alcohol resistant foam. Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Avoid water in straight hose stream; will scatter and spread fire.
Specific hazards arising from the chemical:	Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures



Personal precautions, protective equipment and emergency procedures:	Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind.
Accidental release measures:	Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.
Methods and material for containment and cleaning up:	Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Dike far ahead of larger spill for later recovery and disposal. In case of leakage, eliminate all ignition sources.
Environmental Precautions:	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	No data available.
Safe handling advice:	Avoid contact with eyes. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Take precautionary measures against static discharges. EMPTY CONTAINER WARNING: Empty containers may retain residue (including vapors) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with government regulations.
Contact avoidance measures:	No data available.
Hygiene measures:	Avoid contact with eyes. Observe good industrial hygiene practices. When using do not smoke.

Storage

Safe storage conditions:	Store in a well-ventilated place. Store in a cool place.
Safe packaging materials:	No data available.
Storage Temperature:	No data available.

8. Exposure controls/personal protection

Control Parameters



Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Ethyl Alcohol	STEL	1,000 ppm	US. ACGIH Threshold Limit Values, as amended
	REL	1,000 ppm 1,900 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	1,000 ppm 1,900 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	1,000 ppm 1,900 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	1,000 ppm 1,900 mg/m ³	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
	ST ESL	1,910 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL	1,880 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL	1,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	ST ESL	1,010 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	TWA PEL	1,000 ppm 1,900 mg/m ³	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Trade Secret - Inhalable fraction and vapor.	TWA	5 ppm	US. ACGIH Threshold Limit Values, as amended
Trade Secret	ST ESL	50 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL	31 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	ST ESL	310 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL	5 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Exposure guidelines

Trade Secret	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
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Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment



General information:	Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof ventilation equipment.
Eye/face protection:	Wear safety glasses with side shields (or goggles).
Skin Protection	
Hand Protection:	No data available.
Skin and Body Protection:	No data available.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

9. Physical and chemical properties

Appearance

Physical state:	Liquid
Form:	Clear Liquid
Color:	Yellow
Odor:	Characteristic
Odor Threshold:	No data available.
pH:	No data available.
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	82 °F
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Vapor pressure:	No data available.
Vapor density (air=1):	No data available.
Density:	No data available.
Relative density:	0.958 (20 °C)
Solubility in Water:	The product is soluble in water.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Self Ignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Kinematic viscosity:	No data available.
Dynamic viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.



10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Heat, sparks, flames.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	No data available.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	Causes serious eye irritation.
Ingestion:	No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	ATEmix: 12,158.85 mg/kg
Dermal Product:	Not classified for acute toxicity based on available data.
Inhalation Product:	Not classified for acute toxicity based on available data.

Repeated dose toxicity



Product: No data available.

Components:

Trade Secret

LOAEL (Mouse(Male), Oral, 14 Weeks): 745 mg/kg Oral Experimental result, Key study
LOAEL (Rat(Male), Oral, 16 d): 2,280 mg/kg Oral Experimental result, Supporting study
LOAEL (Mouse(Male), Oral, 104 - 105 Weeks): 120 mg/kg Oral Experimental result, Key study
NOAEL (Rat(Female, Male), Oral, 14 d): 570 mg/kg Oral Experimental result, Supporting study
LOAEL (Rat(Female, Male), Inhalation, 3 - 13 Weeks): 68 ppm(m) Inhalation Experimental result, Weight of Evidence study

Skin Corrosion/Irritation

Product:

No data available.

Components:

Ethyl Alcohol

in vivo (Rabbit): Not irritating
in vivo (Human): Not irritating
in vivo (Rabbit): Not irritating
in vivo (Rabbit): Moderately irritating
in vivo (Rabbit): Not irritating
in vivo (Rabbit): Moderately irritating
in vivo (Human): Not irritating
in vivo (Rabbit): Not irritating
in vivo (Rabbit): Moderately irritating
in vivo (Rabbit): Moderately irritating
in vivo (Rabbit): Slightly irritating
in vivo (Rabbit): ambiguous
in vivo (Rabbit): Not irritating
in vivo (Rabbit): Slightly irritating
in vivo (Rabbit): not irritating (but reversibility not established due to short observation period)
in vivo (Rabbit): Not irritating
in vivo (Human): slightly irritating under extreme repeat dose situations
in vivo (Rabbit): Slightly irritating
in vivo (Rabbit): ambiguous
in vivo (Rabbit): Not irritating
in vivo (Rabbit): Not irritating
in vivo (Rabbit): not irritating (but reversibility not established due to short observation period)
in vivo (Rabbit): ambiguous
in vivo (Rabbit): Not irritating
in vivo (Rabbit): Slightly irritating
in vivo (Rabbit): not irritating (but reversibility not established due to short observation period)
in vivo (Rabbit): ambiguous

Serious Eye Damage/Eye Irritation

Product:

No data available.

Components:

Ethyl Alcohol

Rabbit, 24 - 72 hrs: Category 2A

Respiratory or Skin Sensitization



Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Components:



Trade Secret

NOAEL (Leuciscus idus, 96 h): 4.6 mg/l Experimental result, Key study
LC 50 (Leuciscus idus, 96 h): 6.78 mg/l Experimental result, Key study
LC 100 (Leuciscus idus, 96 h): 10 mg/l Experimental result, Key study
LC 0 (Leuciscus idus, 96 h): 4.6 mg/l Experimental result, Key study

Aquatic Invertebrates

Product:

No data available.

Components:

Trade Secret

EC 100 (Daphnia magna, 48 h): 25 mg/l Experimental result, Key study
EC 50 (Daphnia magna, 48 h): 6.8 mg/l Experimental result, Key study
ED 0 (Daphnia magna, 48 h): 3.13 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish

Product:

No data available.

Aquatic Invertebrates

Product:

No data available.

Toxicity to Aquatic Plants

Product:

No data available.

Persistence and Degradability

Biodegradation

Product:

No data available.

BOD/COD Ratio

Product:

No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:

No data available.

Components:

Trade Secret

Bioconcentration Factor (BCF): 89.72 Aquatic sediment Estimated by calculation, Key study

Partition Coefficient n-octanol / water (log Kow)

Product:

No data available.

Components:

Ethyl Alcohol

Log Kow: -0.31

Mobility in soil:

No data available.

Components:

Ethyl Alcohol

No data available.

Trade Secret

No data available.



Other adverse effects: No data available.

13. Disposal considerations

Disposal methods: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated Packaging: No data available.

14. Transport information

DOT

UN Number: UN 1197
UN Proper Shipping Name: EXTRACTS, FLAVOURING, LIQUID
Transport Hazard Class(es)
Class: 3
Label(s): LTQT
EmS No.:
Packing Group: III
Special precautions for user: Not regulated.

IATA Cargo

UN Number: UN 1197
UN Proper Shipping Name: EXTRACTS, FLAVOURING, LIQUID
Transport Hazard Class(es)
Class: 3
Label(s): LTQT, AELG, PKOR, PSN1, UN1
Packing Group: III
Environmental Hazards: No
Marine Pollutant: No
Special precautions for user: Not regulated.
Cargo aircraft : Allowed. Y344

IMDG

UN Number: UN 1197
UN Proper Shipping Name: EXTRACTS, FLAVOURING, LIQUID
Transport Hazard Class(es)
Class: 3
Label(s): LTQT, PKOR, PSN1, UN1
EmS No.: F-E, S-D
Packing Group: III
Special precautions for user: Not regulated.

15. Regulatory information

If you have any questions regarding regulatory information relative to this product, including State or national inventories, please contact McCormick at either Regulatory@McCormick.com or 410-771-7665.



16. Other information, including date of preparation or last revision
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Issue Date: 09/24/2020

Version #: 00002.0

Further Information: No data available.

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.