

3720 – Lemonade, Natural Flavors

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : 3720 – Lemonade, Natural Flavors
Product form : Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Food industry: component

1.3. Details of the supplier of the safety data sheet

LorAnn Oils, Inc.
4518 Aurelius Road
Lansing, MI 48910
Telephone: 1.800.862.8620

1.4. Emergency telephone number

Emergency number : CHEMTREC: Within USA and Canada: 1.800.424.9300 Outside USA and Canada: +1 703 527 3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS US classification

Flam. Liq. 4 H227
Skin Sens. 1 H317
Aquatic Acute 3 H402

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Warning

Hazard statements (GHS US)

: H227 - Combustible liquid
H317 - May cause an allergic skin reaction
H402 - Harmful to aquatic life

Precautionary statements (GHS US)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - If on skin: Wash with plenty of water.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

2.4. Unknown acute toxicity (GHS US)

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	%	GHS US classification
Proprietary Flavor Ingredient - RW-558	6.09026 – 6.73134	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Aquatic Acute 2, H401
Proprietary Flavor Ingredient - RW-172	2.78692 – 3.08028	Eye Irrit. 2A, H319
Proprietary Flavor Ingredient - RW-637	1.45255 – 1.60545	Flam. Liq. 4, H227 Aquatic Acute 2, H401
Proprietary Flavor Ingredient - RW-57	1.042245 – 1.151955	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

*The specific chemical identities of the ingredients in this mixture, as well as, exact concentrations of any hazardous ingredients stated above, are considered trade secrets. This information is withheld in accordance with the provisions of 1910.1200 of the Code of Federal Regulations.

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : May cause an allergic skin reaction.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

3720 – Lemonade, Natural Flavors

ACGIH	Not applicable
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3720 – Lemonade, Natural Flavors		
OSHA	Not applicable	
Proprietary Flavor Ingredient - RW-558		
ACGIH	Not applicable	
OSHA	Not applicable	
Proprietary Flavor Ingredient - RW-57		
ACGIH	Not applicable	
OSHA	Not applicable	
Proprietary Flavor Ingredient - RW-637		
ACGIH	ACGIH OEL TWA [ppm]	5 ppm (Inhalable fraction and vapor)
OSHA	Not applicable	
Proprietary Flavor Ingredient - RW-172		
ACGIH	Not applicable	
OSHA	Not applicable	

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Protective gloves.
Eye protection	: Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls	: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
	: No data available
	: No data available
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 100 °F
Flash point	: 148.6 °F
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Specific gravity / density	: 1.0388

Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Proprietary Flavor Ingredient - RW-1715	
LD50 oral rat	15645 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Converted value, Oral, 14 day(s))
LD50 dermal rat	> 4200 mg/kg body weight (24 h, Rat, Male / female, Experimental value, Dermal, 9 day(s))
LD50 dermal rabbit	20000 mg/kg (Rabbit)
ATE US (oral)	15645 mg/kg body weight
ATE US (dermal)	20000 mg/kg body weight
Proprietary Flavor Ingredient - RW-558	
LD50 oral rat	1620 mg/kg body weight (Rat; Experimental value)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Inconclusive, insufficient data)
ATE US (oral)	1620 mg/kg body weight
ATE US (dust, mist)	1.5 mg/l/4h
Proprietary Flavor Ingredient - RW-4	
LD50 oral rat	10740 mg/kg body weight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)

Proprietary Flavor Ingredient - RW-4

LD50 dermal rabbit	> 16000 mg/kg (Rabbit; Literature study)
ATE US (oral)	10740 mg/kg body weight

Proprietary Flavor Ingredient - RW-637

LD50 oral rat	4960 mg/kg (Rat, Oral)
LD50 dermal rat	> 2000 mg/kg (Rat, Dermal)
LD50 dermal rabbit	2250 mg/kg (Rabbit, Dermal)
ATE US (oral)	4960 mg/kg body weight
ATE US (dermal)	2250 mg/kg body weight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Proprietary Flavor Ingredient - RW-4

IARC group	1 - Carcinogenic to humans
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Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after skin contact	: May cause an allergic skin reaction.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Harmful to aquatic life.
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Proprietary Flavor Ingredient - RW-1715

LC50 - Fish [1]	5000 mg/l (LC50)
EC50 - Crustacea [1]	7417 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 10000 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)

Proprietary Flavor Ingredient - RW-558

LC50 - Fish [1]	460 mg/l (LC50; EPA OPP 72-1; 96 h; Pimephales promelas; Static system; Fresh water; Experimental value)
LC50 - Fish [2]	10 mg/l (96 h; Lepomis macrochirus)

Proprietary Flavor Ingredient - RW-4

LC50 - Fish [1]	14200 mg/l (LC50; US EPA; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
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Proprietary Flavor Ingredient - RW-637

EC50 - Crustacea [1]	7 mg/l (48 h, Daphnia magna, Literature study)
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12.2. Persistence and degradability

Proprietary Flavor Ingredient - RW-1715	
Persistence and degradability	Readily biodegradable in water.
Proprietary Flavor Ingredient - RW-558	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.6 g O ₂ /g substance
Chemical oxygen demand (COD)	2.4 g O ₂ /g substance
ThOD	2.5 g O ₂ /g substance
Proprietary Flavor Ingredient - RW-4	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.8 – 0.967 g O ₂ /g substance
Chemical oxygen demand (COD)	1.7 g O ₂ /g substance
ThOD	2.1 g O ₂ /g substance
BOD (% of ThOD)	0.43
Proprietary Flavor Ingredient - RW-637	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.556 g O ₂ /g substance
Chemical oxygen demand (COD)	1.99 g O ₂ /g substance
ThOD	2.84 g O ₂ /g substance

12.3. Bioaccumulative potential

Proprietary Flavor Ingredient - RW-1715	
Partition coefficient n-octanol/water (Log Pow)	-0.71 (QSAR, KOWWIN, 21 °C)
Bioaccumulative potential	Not bioaccumulative.
Proprietary Flavor Ingredient - RW-558	
Partition coefficient n-octanol/water (Log Pow)	1-1.1, Experimental value; Other; 20 °C
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Proprietary Flavor Ingredient - RW-4	
BCF - Fish [1]	1 (BCF; Other; 72 h; Cyprinus carpio; Static system; Fresh water; Read-across)
Partition coefficient n-octanol/water (Log Pow)	-0.31 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Proprietary Flavor Ingredient - RW-637	
BCF - Other aquatic organisms [1]	250 (Estimated value)
Partition coefficient n-octanol/water (Log Pow)	2.76 – 3.45 (Estimated value)
Bioaccumulative potential	Bioaccumable.

12.4. Mobility in soil

Proprietary Flavor Ingredient - RW-1715	
Surface tension	74.161 mN/m (21 °C, 0.1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	Adsorbs into the soil.
Proprietary Flavor Ingredient - RW-558	
Surface tension	0.04 N/m (20 °C)

Proprietary Flavor Ingredient - RW-4

Surface tension	0.022 N/m (20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	Koc,PCKOCWIN v1.66; 1; Read-across

12.5. Other adverse effects

Effect on ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT
Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

Transport by sea

Air transport

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

Listed on the Canadian DSL (Domestic Substances List)
Proprietary Flavor Ingredient - RW-57
Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

15.2.2. National regulations

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Not listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Proprietary Flavor Ingredient - RW-57

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on IARC (International Agency for Research on Cancer)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:

H226	Flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects