

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Lemon Natural Concentrate** 22263

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Lemon Natural Concentrate** 22263

Other identifiers: None

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

Product uses: Flavours

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 3
Acute Toxicity - Oral Category 4
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2A
Sensitization - Skin Category 1
Specific Target Organ Toxicity (Single Exposure) Category 3
H226, Flammable liquid and vapour.
H302, Harmful if swallowed.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H335, May cause respiratory irritation.

2.2 Label elements

Signal word: Warning

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Lemon Natural Concentrate** 22263

Version: 1

Hazard statements: H226, Flammable liquid and vapour.
H302, Harmful if swallowed.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H335, May cause respiratory irritation.

Precautionary statements: P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P240, Ground/bond container and receiving equipment.
P241, Use explosion-proof electrical, ventilating and lighting equipment.
P242, Use only non-sparking tools.
P243, Take precautionary measures against static discharge.
P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P270, Do not eat, drink or smoke when using this product.
P271, Use only outdoors or in a well-ventilated area.
P272, Contaminated work clothing should not be allowed out of the workplace.
P280, Wear protective gloves/eye protection/face protection.
P301/312, IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P303/361/353, IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304/340, IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P330, Rinse mouth.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/233/235, Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405, Store locked up.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Lemon Natural Concentrate** 22263

Version: 1

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	EC	%	GHS Classification
d-Limonene	5989-27-5	227-813-5	50-100%	FL 3-SCI 2-SS 1B-AH 1;H226-H304-H315-H317
beta-Pinene	127-91-3	204-872-5	10-<20%	FL 3-SCI 2-SS 1B-AH 1;H226-H304-H315-H317
p-Mentha-1,4-diene	99-85-4	202-794-6	5-<10%	FL 3-AH 1;H226-H304
Citral	5392-40-5	226-394-6	1-<5%	SCI 2-EDI 2A-SS 1B;H315-H317-H319
alpha-Pinene	80-56-8	201-291-9	1-<5%	FL 3-SCI 2-SS 1B-AH 1;H226-H304-H315-H317
Myrcene	123-35-3	204-622-5	1-<5%	FL 3-SCI 2-EDI 2A-AH 1;H226-H304-H315-H319
Terpinolene	586-62-9	209-578-0	0.1-<1%	FL 4-SS 1B-AH 1;H227-H304-H317
l-.beta.-Bisabolene	495-61-4		0.1-<1%	SCI 2-SS 1B-AH 1;H304-H315-H317
Geranyl acetate	105-87-3	203-341-5	0.1-<1%	SCI 2-SS 1B;H315-H317
Geraniol	106-24-1	203-377-1	0.1-<1%	SCI 2-EDI 1-SS 1;H315-H317-H318
beta-Caryophyllene	87-44-5	201-746-1	0.1-<1%	AH 1;H304

The exact percentage concentrations of components are being withheld as a trade secret.

Substances with Community workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Call a POISON CENTRE or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

May cause respiratory irritation.

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Lemon Natural Concentrate** 22263

Version: 1

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Flavours: Use in accordance with good manufacturing and industrial hygiene practices.

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Lemon Natural Concentrate** 22263

Version: 1

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined

Odour: Not determined

pH: Not determined

Initial boiling point / range: Not determined

Flash point: 50.39 °C

Vapour pressure: Not determined

Relative density: 0.8500

Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Lemon Natural Concentrate** 22263

Version: 1

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in 29 CFR 1910.1200.

Harmful if swallowed.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

May cause respiratory irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity:	>5000
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity:	>5000
Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity:	Not Available
Inhalation Route:	Not Available

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Lemon Natural Concentrate** 22263

Version: 1

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: UN1197
14.2 UN Proper Shipping Name: EXTRACTS, FLAVOURING, LIQUID
14.3 Transport hazard class(es): 3
Sub Risk: -
14.4. Packing Group: III
14.5 Environmental hazards: This is an environmentally hazardous substance.
14.6 Special precautions for user: None additional
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not applicable

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Concentration % Limits: SCI 2=11.97% SS 1=1.52% AH 1=11.24%

Total Fractional Values: SCI 2=8.35 SS 1=65.60 AH 1=8.90

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
AH 1	Aspiration Hazard Category 1
EDI 1	Eye Damage / Irritation Category 1

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Lemon Natural Concentrate** 22263

Version: 1

EDI 2A	Eye Damage / Irritation Category 2A
FL 3	Flammable Liquid, Hazard Category 3
FL 4	Flammable Liquid, Hazard Category 4
H226	Flammable liquid and vapour.
H227	Combustible liquid.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/eye protection/face protection.
P301/310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P303/361/353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P331	Do not induce vomiting.
P332/313	If skin irritation occurs: Get medical advice/attention.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
SCI 2	Skin Corrosion / Irritation Category 2
SS 1	Sensitization - Skin Category 1
SS 1B	Sensitization - Skin Category 1B

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.