

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: June 20, 2018


Revision: June 20, 2018

1 Identification

- **Product identifier**
- **Trade name:** Citrus Essential Oil Blend
- **Other means of identification:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Essential oils.
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Science Solutions LLC
825 S. Waukegan Road
A8-226
Lake Forest, IL 60045
(800) 737-5283
(773) 261-1197
- **Emergency telephone number:**
CHEMTREC
1-800-424-9300 (US/Canada)
+01 703-527-3887 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 4 H227 Combustible liquid.
Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements**
This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission. GHS labeling is not required per 29CFR1910.1200(b)(5)(v). The labeling below applies to industrial/professional products.
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

GHS07
- **Signal word:** Warning
- **Hazard statements:**
H227 Combustible liquid.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
- **Precautionary statements:**
P210 Keep away from flames and hot surfaces. – No smoking.
P261 Avoid breathing mist.
P264 Wash thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.

(Cont'd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: June 20, 2018

Revision: June 20, 2018

Trade name: Citrus Essential Oil Blend

(Cont'd. of page 1)

P280 Wear protective gloves.
 P302+P352 If on skin: Wash with plenty of soap and water.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P370+P378 In case of fire: Use foam, powder, or carbon dioxide for extinction.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

5989-27-5	d-limonene ⚠ Flam. Liq. 3, H226 ⚠ Asp. Tox. 1, H304 ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	<10%
120-51-4	Benzyl benzoate ⚠ Acute Tox. 4, H302	<1%
5392-40-5	Citral ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1B, H317	<1%

· **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
 For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately remove any clothing soiled by the product.
 Immediately wash with water and soap and rinse thoroughly.
 If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact:**

Remove contact lenses if worn.
 Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.
 Do not induce vomiting; immediately call for medical help.
 A person vomiting while lying on their back should be turned onto their side.

· **Most important symptoms and effects, both acute and delayed:**

Allergic reactions
 Coughing
 Gastric or intestinal disorders when ingested.
 Irritant to skin and mucous membranes.
 Slight irritant effect on eyes.

(Cont'd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: June 20, 2018

Revision: June 20, 2018

Trade name: Citrus Essential Oil Blend

(Cont'd. of page 2)

- **Indication of any immediate medical attention and special treatment needed:**
Contains Citral, d-limonene. May produce an allergic reaction.
Treat skin and mucous membrane with antihistamine and corticoid preparations.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Water fog / haze
Carbon dioxide
Gaseous extinguishing agents
Foam
- **For safety reasons unsuitable extinguishing agents:** Water stream.
- **Special hazards arising from the substance or mixture**
Combustible liquid.
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:** Cool endangered containers with water fog.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment as required.
Ensure adequate ventilation.
Particular danger of slipping on leaked/spilled product.
Remove ignition sources.
- **Environmental precautions**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up**
Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Avoid splashes or spray in enclosed areas.
Keep out of reach of children.
Open and handle receptacle with care.

(Cont'd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: June 20, 2018

Revision: June 20, 2018

Trade name: Citrus Essential Oil Blend

(Cont'd. of page 3)

- Avoid contact with the eyes and skin.
- **Information about protection against explosions and fires:**
 - Combustible liquid.
 - Keep ignition sources away - Do not smoke.
 - Protect from heat.
 - Flammable gas-air mixtures may be formed in empty containers/receptacles.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
 - Store in cool, dry conditions in well sealed receptacles.
 - Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
 - Store away from oxidizing agents.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

5392-40-5 Citral

TLV (USA)	Long-term value: 32* mg/m ³ , 5* ppm Skin; DSEN; *inhalable fraction + vapor
LMPE (Mexico)	Long-term value: 5 ppm A4, PIEL, SEN, IFV

- **Exposure controls**
- **General protective and hygienic measures:**
 - The usual precautionary measures for handling chemicals should be followed.
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:**
 - Not required under normal conditions of use.
 - Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**



Protective gloves

- **Eye protection:** Follow relevant national guidelines concerning the use of protective eyewear.
- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment**
 - No relevant information available.
- **Risk management measures** No relevant information available.

(Cont'd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: June 20, 2018

Revision: June 20, 2018

Trade name: Citrus Essential Oil Blend

(Cont'd. of page 4)

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form: Liquid

Color: Clear

· Odor: Citrus.

· Odor threshold: Not determined.

· pH-value: Not determined.

· Melting point/Melting range: Not determined.

· Boiling point/Boiling range: Not determined.

· Flash point: >60 °C (>140 °F)

· Flammability (solid, gaseous): Not applicable.

· Auto-ignition temperature: Not determined.

· Decomposition temperature: Not determined.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits

Lower: Not determined.

Upper: Not determined.

· Oxidizing properties: Non-oxidizing.

· Vapor pressure: Not determined.

· Density:

Relative density: <1

Vapor density: Not determined.

Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity

Dynamic: Not determined.

Kinematic: Not determined.

· Other information: No relevant information available.

10 Stability and reactivity

· **Reactivity:** No relevant information available.

· **Chemical stability:** Stable under normal temperatures and pressures.

· Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· Possibility of hazardous reactions

Combustible liquid.

Reacts with strong oxidizing agents.

(Cont'd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: June 20, 2018

Revision: June 20, 2018

Trade name: Citrus Essential Oil Blend

(Cont'd. of page 5)

Used empty containers may contain product gases which form explosive mixtures with air.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.

- **Conditions to avoid** Excessive heat.
- **Incompatible materials** Oxidizers
- **Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

5989-27-5 d-limonene

Oral	LD50	>2000 mg/kg (rat, female)
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120-51-4 Benzyl benzoate

Oral	LD50	1700 mg/kg (rat)
Dermal	LD50	4000 mg/kg (rabbit)

- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Contains Citral, d-limonene. May produce an allergic reaction.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity**

(Cont'd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: June 20, 2018

Revision: June 20, 2018

Trade name: Citrus Essential Oil Blend

(Cont'd. of page 6)

Toxic to aquatic life with long lasting effects.

5989-27-5 d-limonene

LC50 <1 mg/l (pimephales promelas)

EC50 0.307 mg/l (daphnia)

· **Persistence and degradability** The product is partially biodegradable. Significant residuals remain.

· **Bioaccumulative potential:** No relevant information available.

· **Mobility in soil:** No relevant information available.

· Additional ecological information

· General notes:

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

Avoid release to the environment.

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· Uncleaned packagings

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number

· DOT, ADR, IMDG, IATA

UN3082

· UN proper shipping name

· DOT

Environmentally hazardous substances, liquid, n.o.s. (d-limonene, Benzyl benzoate)

· ADR, IMDG

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (d-limonene, Benzyl benzoate)

· IATA

Environmentally hazardous substance, liquid, n.o.s. (d-limonene, Benzyl benzoate)

· Transport hazard class(es)

(Cont'd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: June 20, 2018

Revision: June 20, 2018

Trade name: Citrus Essential Oil Blend

(Cont'd. of page 7)

· **DOT, IMDG, IATA**



· **Class** 9
 · **Label** 9

· **ADR**



· **Class** 9 (M6)
 · **Label** 9

· **Packing group**

· **DOT, ADR, IMDG, IATA** III

· **Environmental hazards**

Product contains environmentally hazardous substances: d-limonene

· **Marine pollutant:**

Yes (DOT)
 Symbol (fish and tree)

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and articles

· **Danger code (Kemler):**

90

· **EMS Number:**

F-A,S-F

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

Not regulated when carried in single or combination packaging containing a net quantity of 5 L or less for liquids or 5 kg or less for solids per the following:
 DOT: 171.4(c)(2)
 ADR: SP 375
 IMDG: 2.10.2.7
 IATA: special provision A197

15 Regulatory information

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

· **United States (USA)**

· **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

(Cont'd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: June 20, 2018

Revision: June 20, 2018

Trade name: Citrus Essential Oil Blend

(Cont'd. of page 8)

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL) (Substances not listed.):**

All ingredients are listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

Flam. Liq. 3: Flammable liquids – Category 3

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

Asp. Tox. 1: Aspiration hazard – Category 1

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/)

(Cont'd. on page 10)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: June 20, 2018

Revision: June 20, 2018

Trade name: Citrus Essential Oil Blend

(Cont'd. of page 9)

overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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