



# SAFETY DATA SHEET

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## Section 1: Identification

### Product and Company Identification

**Product Name:** Citral

**Chemical Name/Synonyms:** C10H16O

**CAS NO.:** 5392-40-5

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

**Identified uses :** Laboratory chemicals, Synthesis of substances

### Details of Supplier of Safety Data Sheet

**Company:** Terp Science Labs.

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**In emergency call 911.**

**For information about this SDS, use this department contact phone#:** 1 (323) 625-0228

## Section 2: Hazard(s) Identification

### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315

Skin sensitisation (Category 1), H317

Short-term (acute) aquatic hazard (Category 2), H401

**Signal Word(s):** Warning

### Hazard Statements:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction

H401 Toxic to aquatic life.



**Pictograms:**

### Precautionary Statements:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.  
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 Take off contaminated clothing and wash before reuse.  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Description of other hazards:**

none

**Section 3: Composition/ Information on Ingredients**

**Substances**

**Synonyms:** Geranial and neral mixture 3,7-Dimethyl-2,6-octadienal

**Formula :**C10H16O

**Molecular weight :** 152.23 g/mol

**CAS-No. :** 5392-40-5

**EC-No. :** 226-394-6

Chemical Name	Classification	Concentration	
Citral	Skin Irrit. 2; Eye Irrit. 2A; Skin Sens. 1; Aquatic Acute 2; H315, H319, H317, H401	<= 100 %	

**Section 4: First-Aid Measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**After skin contact:**

Wash off with soap and plenty of water. Consult a physician

**After eye contact:**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**After inhalation:**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**After swallowing:**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Section 5: Fire-Fighting Measures**

### **Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **Special hazards arising from the substance or mixture**

Carbon oxides

#### **Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **Further information**

No data available

### **Section 6: Accidental Release Measures**

#### **Personal precautions:**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

#### **Measures for environmental protection:**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

#### **Measures for cleaning/collecting:**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### **Section 7: Handling and Storage**

#### **Handling:**

##### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist

##### **Storage:**

Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): 10: Combustible liquids

##### **Specific end use(s):**

No other specific uses are stipulated

### **Section 8: Exposure Controls/Personal Protection**

#### **Components with workplace control parameters**

Remarks: Central Nervous System impairment

Upper Respiratory Tract irritation

Lung damage

Skin irritation

Adopted values or notations enclosed are those for which changes are proposed in the NIC

See Notice of Intended Changes (NIC) Not classifiable as a human carcinogen

Sensitizer

varies

### Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

#### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## Section 9: Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Form: clear, liquid Colour: light yellow
<b>Odour</b>	No data available
<b>Odour Threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point/freezing point</b>	< -20 °C (< -4 °F) at 1,013 hPa
<b>Initial boiling point and boiling range</b>	229 °C 444 °F - lit.
<b>Flash point</b>	95 °C (203 °F) - closed cup
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Upper/lower flammability or explosive limits</b>	Upper explosion limit: 9.9 %(V) Lower explosion limit: 4.3 %(V)

<b>Vapour pressure</b>	< 1.3 hPa at 100 °C (212 °F) - OECD Test Guideline 104
<b>Vapour density</b>	5.26 - (Air = 1.0)
<b>Relative density</b>	0.888 g/cm <sup>3</sup> at 25 °C (77 °F) - lit.
<b>Water solubility</b>	0.42 g/l at 25 °C (77 °F) - OECD Test Guideline 105
<b>Partition coefficient: noctanol/water</b>	log Pow: ca.2.9 at 25 °C (77 °F) - OECD Test Guideline 117
<b>Auto-ignition temperature</b>	225 °C (437 °F) at 1,013 hPa
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive properties</b>	No data available
<b>Oxidizing properties</b>	No data available

**Other safety information**

Relative vapour density 5.26 - (Air = 1.0)

**Section 10: Stability and Reactivity**

**Reactivity:** No data available

**Chemical stability:** Stable under recommended storage conditions

**Possibility of hazardous reactions:** No data available

**Conditions to avoid:** No data available

**Incompatible materials:** Strong oxidizing agents

**Hazardous decomposition products:**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

**Section 11: Toxicological Information**

**Information on toxicological effects**

**Acute toxicity**

LD50 Oral - Rat - male and female - 6,800 mg/kg

Inhalation: No data available

LD50 Dermal - Rat - male and female - > 2,000 mg/kg

**Skin corrosion/irritation**

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Causes serious eye irritation. (OECD Test Guideline 405)

**Respiratory or skin sensitisation**

Maximisation Test - Guinea pig

Result: positive

(OECD Test Guideline 406)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

### **Germ cell mutagenicity**

Ames test  
Salmonella typhimurium  
Result: negative  
In vitro mammalian cell gene mutation test  
Chinese hamster ovary cells  
Result: negative  
Ames test  
Salmonella typhimurium  
Result: negative OECD  
Test Guideline 474  
Mouse - male and female  
Result: negative

### **Reproductive toxicity**

No data available

### **Specific target organ toxicity - single exposure**

No data available

### **Specific target organ toxicity - repeated exposure**

No data available

### **Aspiration hazard**

### **Additional Information**

RTECS: RG5075000

Cough, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Systemic effects:

After absorption:

Drowsiness

Further data:

Handle in accordance with good industrial hygiene and safety practice.

## **Section 12: Ecological Information (non-mandatory)**

### **Toxicity**

Toxicity to fish static test LC50 - Leuciscus idus (Golden orfe) - 6.78 mg/l - 96 h (DIN 38412)  
Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 6.8 mg/l - 48 h Remarks: (ECHA)  
Toxicity to algae static test EC50 - Desmodesmus subspicatus (green algae) - 103.8 mg/l - 72 h  
Toxicity to bacteria EC50 - Pseudomonas putida - 2,100 mg/l - 30 min

### **Persistence and degradability**

Biodegradability

Result: > 90 % - Readily biodegradable.

Remarks: (ECHA)

aerobic - Exposure time 28 d Result: 85 - 95 % - Readily biodegradable.

(OECD Test Guideline 301C)

Result: > 90 % - Readily biodegradable. (OECD Test Guideline 301C)

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life. Biological effects: When discharged properly, no impairments in the function of adapted biological wastewater treatment plants are to be expected. Further information on ecology Discharge into the environment must be avoided.

**Section 13: Disposal Considerations (non-mandatory)**

**Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

**Section 14: Transport Information (non-mandatory)**

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods.

**IATA**

Not dangerous goods

**Section 15: Regulatory Information (non-mandatory)**

**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312**

Acute Health Hazard

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act

Printing Date: 9/23/2019  
Reviewed on: 9/1/2019

**Pennsylvania Right To Know Components**

Citral CAS-No. 5392-40-5

**New Jersey Right To Know Components**

Citral CAS-No. 5392-40-5

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**Section 16: Other Information**

Employers should only use this information only as a supplement to other information gathered by them , and should make judgement suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet , or in any combination with any other product or process, is the responsibility of the user.

**Preparation Information** Terp Science Labs

**SDS date of preparation/update:** 9/1/2019