



500080 Citral Natural

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 01-10-2025 Version: 1.0

SECTION 1 Identification

1.1. Product identifier

Product form	: Substance
Trade name	: 500080 Citral Natural
Chemical name	: Citral
CAS-No.	: 5392-40-5
Product code	: 500080
Formula	: C10H16O

1.2. Other means of identification

Synonyms	: 2,6- OCTADIENAL, 3,7-DIMETHYL-; 2,6- dimethyl octadien-2,6-al-8; 3,7-DIMETHYL-2,6-OCTADIENAL; 3,7- dimethylocta-2,6-dienal
Other means of identification	: FEMA: 2303

1.3. Recommended use of the chemical and restrictions on use

Recommended use	: Concentrated aromatic and flavor ingredient which may be used in flavor and fragrance compounds according to legal and IFRA or FEMA GRAS/FDA guidelines.
Restrictions on use	: For Manufacturing Use Only

1.4. Supplier's details

Supplier

Vigon International, LLC
127 Airport Road,
East Stroudsburg,
PA 18301-9629,
USA

Telephone: +1 570-476-6300
Fax: +1 570-476-1110
Website: www.vigon.com
E-mail: regulatory@vigon.com

1.5. Emergency phone number

Emergency number	: CareChem 24x7 ACCT Number: AZELIS-29003 EUROPE: +44 1235 239670 USA: +1 202 464 2554 CANADA - +1 800 579 7421 (Toll Free) ASIA - +65 3158 1074 MOROCCO - +44 1235 239671 REST OF THE WORLD - +44 1865 407333 (English only)
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SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

GHS US classification

Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2A	H319	Causes serious eye irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Aquatic Acute 2	H401	Toxic to aquatic life.

Full text of hazard classes and H-statements : see section 16

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2.2. Label elements

GHS US labelling

Hazard pictograms (GHS US)

:



Signal word (GHS US)

: Warning

Hazard statements (GHS US)

: H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H401 - Toxic to aquatic life

Precautionary statements (GHS US)

: P261 - Avoid breathing mist, vapours.
P264 - Wash hands, forearms and face thoroughly after handling.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, eye and face protection.
P302+P352 - If on skin: Wash with plenty of water.
P312 - Call a poison center or doctor if you feel unwell.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P363 - Take off immediately all contaminated clothing and wash it before reuse.
P220 - Keep/Store away from incompatible materials.
P501 - Dispose of contents and/or container to in accordance with local/regional/national/international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

Other hazards which do not result in classification : After prolonged contact with highly porous materials, this product may spontaneously combust.

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
Citral (Main constituent)	CAS-No.: 5392-40-5	≥ 80

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

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SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
First-aid measures after inhalation	: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.
First-aid measures after skin contact	: Wash skin thoroughly with soap and water for several minutes. Get medical attention if irritation develops and persists. Take off immediately all contaminated clothing.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids.
First-aid measures after ingestion	: Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Prolonged inhalation may be harmful.
Symptoms/effects after skin contact	: Skin irritation. May cause redness and pain. May cause allergic skin reaction. Dermatitis. Rash. May be harmful in contact with skin.
Symptoms/effects after eye contact	: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.

5.2. Specific hazards arising from the chemical

Fire hazard	: Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material.
Reactivity in case of fire	: Static charges generated by emptying package in or near flammable vapor may cause flash fire.
Hazardous decomposition products in case of fire	: Fire may produce irritating, corrosive and/or toxic gases.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.
Protection during firefighting	: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.
Other information	: Use water spray to cool unopened containers.

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SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

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".
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.
Environmental precautions : Retain and dispose of contaminated wash water. Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

6.2. Methods and materials for containment and cleaning up

Methods for cleaning up: : Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Prevent product from entering drains.
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle or store near an open flame, heat or other sources of ignition. Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material. May auto-oxidize with sufficient heat generation to ignite if spread (as a thin film) or absorbed on porous or fibrous material. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Contaminated rags and cloths must be put in fireproof containers for disposal. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Do not store in direct sunlight. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Keep under a nitrogen blanket.
Incompatible materials : Strong oxidizing agents.
Maximum storage period : 365 days

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SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Citral (5392-40-5)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Citral
ACGIH® TLV® TWA	32 mg/m³ (IFV - Inhalable fraction and vapor)
	5 ppm (IFV - Inhalable fraction and vapor)
Remark (ACGIH)	TLV® Basis: Body weight; URT irr; Eye dam. Notations: Skin; DSEN; A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025

8.2. Appropriate engineering controls

Appropriate engineering controls : Use explosion-proof ventilation equipment to stay below exposure limits.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Protective clothing. Safety glasses. Wear protective gloves. Wear respiratory protection.

Hand protection:
Chemical resistant gloves
Eye protection:
Face shield is recommended.
Skin and body protection:
Wear suitable protective clothing. Use of an impervious apron is recommended
Respiratory protection:
Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided.

Personal protective equipment symbol(s):



Thermal hazard protection:

Wear appropriate thermal protective clothing, when necessary.

Other information:

When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid
Appearance : As per product specification.
Colour : As per product specification.

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Odour	: Characteristic
Odour threshold	: No data available
pH	: No data available
Melting point	: -10 °C (14 °F)
Freezing point	: No data available
Boiling point	: 228 – 229 °C (442.4 - 444.2 °F, 760.00 mmHg)
Flash point	: 212 °F (100.0 °C, Closed Cup)
Flammability (solid, gas)	: No data available
Vapour pressure	: 0.2 mm Hg (20 °C)
Relative vapour density at 20°C	: No data available
Relative density	: 0.89 (25 °C)
Density	: 0.89 g/cm ³ (15 °C)
Molecular mass	: 152.23 g/mol
Solubility	: Water: Immiscible
Partition coefficient n-octanol/water (Log Kow)	: 3.45
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosive limits	: No data available
Explosive properties	: Not explosive.
Oxidising properties	: Not oxidizing.
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

Additional information	: Flammability class : Combustible IIIB Vapour density : 5.3
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SECTION 10 Stability and reactivity

10.1. Reactivity

The product is stable and 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

Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Fire may produce irritating, corrosive and/or toxic gases.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)

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Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Citral (5392-40-5)

LD50 dermal rabbit	2250 mg/kg
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Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Citral (5392-40-5)

IARC group	Not listed
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National Toxicity Program (NTP) Status	Not listed
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Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Symptoms/effects after inhalation : Prolonged inhalation may be harmful.

Symptoms/effects after skin contact : Skin irritation. May cause redness and pain. May cause allergic skin reaction. Dermatitis. Rash. May be harmful in contact with skin.

Symptoms/effects after eye contact : Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : Toxic to aquatic life.

Hazardous to the aquatic environment, short-term (acute) : Toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Citral (5392-40-5)

LC50 - Fish [1]	> 4.6 – < 10 mg/l (96 h, Ide, silver or golden orfe (Leuciscus idus))
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EC50 - Crustacea [1]	7 mg/l (48 h, Daphnia magna)
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EC50 - Other aquatic organisms [1]	2100 mg/l (0.5 h, Bacterium)
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EC50 - Other aquatic organisms [2]	103.8 mg/l (72 h, Green algae (Chlamydomonas variabilis))
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Additional information	EC20 : 68 mg/l (0.5 h OECD Guideline 209 (Activated Sludge))
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12.2. Persistence and degradability

Citral (5392-40-5)

Persistence and degradability	Readily biodegradable.
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BOD (% of ThOD)	92 % (28 d, OECD 301C; ISO 9408)
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Additional information	Biodegradation : > 90% (28d, OECD 301F)
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12.3. Bioaccumulative potential

Citral (5392-40-5)

Partition coefficient n-octanol/water (Log Kow)	3.45
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Sewage disposal recommendations	: Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/ water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/ regional/national/international regulations.
Product/Packaging disposal recommendations	: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

14.1. UN Number

Not regulated for transport

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated

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14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

No additional information available

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 Other Information

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

Issue date : 01-10-2025

Full text of hazard classes and H-statements

Aquatic Acute 2	Hazardous to the aquatic environment — Acute Hazard, Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H401	Toxic to aquatic life

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Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.