SAFETY DATA SHEET (SDS)

Prepared in accordance with the Globally Harmonized System (GHS) and Regulation (EC) No. 1907/2006 (REACH, as amended)

SECTION 1 – IDENTIFICATION

Product Name: Citral Natural
Chemical Name: 3,7-Dimethyl-2,6-octadienal
INCI Name: Citral
CAS Number: 5392-40-5
EC Number: 226-394-6
Molecular Formula: C_{10} H_{16} O
Molecular Weight: 152.24 g/mol
Product Type: Natural Aroma Ingredient / Natural Isolate
Composition: Natural mixture of geranial and neral
Source: Naturally isolated from citral-rich botanical essential oils
Grade: Premium Perfumery Grade
Recommended Use: Professional perfumery, fragrance, cosmetic and aroma formulation raw material.

Supplier

Aromology Trading LLC
G05 Al Ghazal Building
Nadd Al Hamar
Dubai, United Arab Emirates

Website: www.aromology.com
Email: info@aromology.com
Telephone: +971 505197601

SECTION 2 – HAZARD IDENTIFICATION

GHS Classification

- Skin Irritation – Category 2
- Skin Sensitisation – Category 1
- Eye Irritation – Category 2A

Signal Word

Warning

Hazard Statements

- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.

Precautionary Statements

- P261: Avoid breathing vapour or mist.
- P264: Wash hands and exposed skin thoroughly after handling.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P280: Wear protective gloves, protective clothing and eye protection.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P333+P313: If skin irritation or rash occurs: Get medical advice.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, when present and easy to do. Continue rinsing.
- P337+P313: If eye irritation persists: Get medical advice.
- P362+P364: Take off contaminated clothing and wash it before reuse.
- P501: Dispose of contents and container in accordance with applicable regulations.

Other Hazards

Citral is a recognised fragrance sensitiser. Repeated or prolonged contact with undiluted material should be avoided.

The substance may oxidise during prolonged exposure to air, heat and light. Oxidised material may have increased skin-sensitising potential.

Component	Information
Product	Citral Natural
Chemical Name	3,7-Dimethyl-2,6-octadienal
INCI Name	Citral
CAS Number	5392-40-5
EC Number	226-394-6
Molecular Formula	C_{10} H_{16} O

Molecular Weight	152.24 g/mol
Purity	Typically ≥95%
Source	Natural Isolate

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Principal Isomeric Components

Component	Typical Status
Geranial	Major Component
Neral	Major Component
Naturally Occurring Terpenic Impurities	Trace, Batch Dependent

The exact ratio of geranial to neral may vary according to botanical source and manufacturing process.

SECTION 4 – FIRST AID MEASURES

Inhalation

Move the affected person to fresh air and keep at rest in a position comfortable for breathing.

Obtain medical advice if coughing, dizziness, respiratory irritation or other symptoms persist.

Skin Contact

Remove contaminated clothing and footwear.

Wash affected skin thoroughly with soap and plenty of water.

Seek medical advice if irritation, redness or an allergic skin reaction develops.

Wash contaminated clothing before reuse.

Eye Contact

Immediately rinse cautiously with clean water for at least 15 minutes.

Remove contact lenses when present and easy to do.

Continue rinsing and obtain medical attention if irritation persists.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting unless instructed by qualified medical personnel.

Never give anything by mouth to an unconscious person.

Seek medical advice if the material has been swallowed or symptoms occur.

Most Important Symptoms and Effects

- Skin redness and irritation
- Allergic skin reaction
- Eye redness, watering and discomfort
- Respiratory irritation following excessive vapour exposure

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

- Carbon dioxide
- Dry chemical powder
- Alcohol-resistant foam
- Water fog or fine water spray

Unsuitable Extinguishing Media

Do not use a direct high-pressure water jet, as this may spread the burning material.

Specific Hazards

Combustible liquid.

Heating may generate irritating vapours.

Closed containers exposed to fire may rupture due to increased internal pressure.

Hazardous Combustion Products

- Carbon monoxide

- Carbon dioxide
- Irritating aldehydic vapours
- Smoke and unidentified organic decomposition products

Protective Equipment for Firefighters

Wear self-contained breathing apparatus and full protective clothing when fighting a significant fire.

Cool fire-exposed containers with water spray.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions

- Ensure adequate ventilation.
- Avoid breathing vapours or mist.
- Avoid contact with skin and eyes.
- Wear protective gloves and eye protection.
- Remove unnecessary personnel from the affected area.

Environmental Precautions

Prevent entry into drains, sewers, soil and waterways.

Notify the appropriate authority if a significant release enters the environment.

Methods for Containment and Cleaning

Absorb the spill using sand, vermiculite, universal absorbent or another non-combustible inert material.

Transfer the absorbed material into a suitable labelled waste container.

Wash the affected surface after the bulk material has been removed.

SECTION 7 – HANDLING AND STORAGE

Safe Handling

- Use only in a well-ventilated area.

- Avoid breathing concentrated vapour.
- Avoid contact with skin and eyes.
- Do not eat, drink or smoke while handling.
- Wear suitable protective gloves and eye protection.
- Use clean, dry and compatible dispensing equipment.
- Keep away from incompatible materials and ignition sources.

Storage Conditions

Keep the container tightly closed when not in use.

Store in a cool, dry and well-ventilated area.

Protect from direct sunlight, excessive heat, air exposure and strong oxidising agents.

Where possible, minimise headspace or use an inert-gas blanket after opening to reduce oxidation.

Recommended Storage Temperature: 5–20 °C

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits

No specific occupational exposure limit has been established for the complete material.

Maintain airborne concentrations as low as reasonably practicable.

Engineering Controls

Provide adequate general ventilation.

Use local exhaust ventilation where vapours or mist may accumulate.

Personal Protective Equipment

Eye and Face Protection

Wear chemical safety goggles.

Use a face shield where splashing is possible.

Hand Protection

Wear chemical-resistant gloves, preferably nitrile gloves.

Inspect gloves before use and replace damaged or contaminated gloves.

Skin and Body Protection

Wear suitable protective clothing to prevent repeated skin contact.

Respiratory Protection

Respiratory protection is not normally required under adequately ventilated conditions.

Use an approved organic-vapour respirator where ventilation is insufficient or concentrated vapour exposure may occur.

Hygiene Measures

Wash hands thoroughly after handling.

Remove contaminated clothing and wash before reuse.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Specification
Physical State	Clear mobile liquid
Colour	Colourless to Pale Yellow
Odour	Powerful fresh lemon, citrus, aldehydic and slightly green
Odour Threshold	Not Determined
Melting / Freezing Point	Not Determined
Boiling Range	Approximately 225–230°C
Flash Point	Approximately 90–100°C
Auto-Ignition Temperature	Not Determined
Relative Density at 20°C	0.885–0.895
Refractive Index at 20°C	1.486–1.491
Vapour Pressure	Low at Ambient Temperature
Solubility in Water	Slightly Soluble
Solubility in Ethanol	Soluble
Solubility in Perfumery Solvents	Soluble
Partition Coefficient	Not Determined
Viscosity	Low-Viscosity Liquid

Explosive Properties	Not Classified as Explosive
Oxidising Properties	Not Classified as Oxidising

SECTION 10 – STABILITY AND REACTIVITY

Reactivity

No dangerous reaction is expected under normal conditions of storage and use.

Chemical Stability

Stable when stored in a tightly closed container under recommended conditions.

The material may gradually oxidise when exposed to air, heat or light.

Possibility of Hazardous Reactions

Hazardous polymerisation is not expected.

May react with strong oxidising agents.

Conditions to Avoid

- Excessive heat
- Direct sunlight
- Prolonged exposure to air
- Sparks and open flames
- Contaminated storage equipment

Incompatible Materials

- Strong oxidising agents
- Strong acids
- Strong bases
- Reactive reducing agents

Hazardous Decomposition Products

Thermal decomposition may produce carbon monoxide, carbon dioxide and irritating organic vapours.

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SECTION 11 – TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

- Skin contact
- Eye contact
- Inhalation
- Accidental ingestion

Acute Toxicity

The available information does not require classification for acute toxicity under the specified GHS criteria.

Skin Corrosion / Irritation

Causes skin irritation.

Serious Eye Damage / Eye Irritation

Causes serious eye irritation.

Respiratory or Skin Sensitisation

May cause an allergic skin reaction.

Germ Cell Mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive Toxicity

Not classified based on available information.

Specific Target Organ Toxicity – Single Exposure

Not classified based on available information.

Specific Target Organ Toxicity – Repeated Exposure

Not classified based on available information.

Aspiration Hazard

Not classified based on available information.

Additional Information

Citral is a fragrance allergen requiring consideration in cosmetic and fragrance formulations.

Oxidation products formed during improper or prolonged storage may increase sensitisation potential.

SECTION 12 – ECOLOGICAL INFORMATION

Avoid uncontrolled release into the environment.

Ecotoxicity

Complete batch-specific aquatic toxicity data are not available for this natural grade.

Persistence and Degradability

Expected to be biodegradable, but batch-specific test data are not available.

Bioaccumulative Potential

No complete batch-specific information is available.

Mobility in Soil

The material has low water solubility and may adsorb to soil and organic matter.

Other Adverse Effects

Large or repeated releases may adversely affect aquatic and terrestrial environments.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of unused product, absorbent material and contaminated packaging through an authorised waste contractor.

Do not discharge into drains, surface water or soil.

Empty containers may retain product residue and vapours.

Dispose of packaging in accordance with applicable local and national regulations.

SECTION 14 – TRANSPORT INFORMATION

Regulation	Classification
UN Number	Not Assigned
ADR/RID	Not Regulated as Dangerous Goods
IMDG	Not Regulated as Dangerous Goods
IATA/ICAO	Not Regulated as Dangerous Goods
Marine Pollutant	No
Packing Group	Not Applicable

Transport classification must be confirmed against the actual batch specification, package size and regulations applicable on the date and route of shipment.

SECTION 15 – REGULATORY INFORMATION

This Safety Data Sheet has been prepared with reference to:

- Globally Harmonized System of Classification and Labelling of Chemicals
- OSHA Hazard Communication Standard, 29 CFR 1910.1200
- Regulation (EC) No. 1907/2006 concerning REACH
- Regulation (EC) No. 1272/2008 concerning classification, labelling and packaging
- Regulation (EU) 2020/878 concerning Safety Data Sheet requirements
- Regulation (EC) No. 1223/2009 concerning cosmetic products
- Commission Regulation (EU) 2023/1545 concerning fragrance-allergen labelling

Citral is a declarable fragrance allergen in cosmetic products when its concentration exceeds the applicable labelling threshold in the finished product.

SECTION 16 – OTHER INFORMATION

AROMOLOGY

Citral Natural is a naturally derived mixture composed principally of the geometric isomers geranial and neral. It possesses a powerful fresh lemon, citrus and aldehydic odour and is widely used in citrus, floral, verbena, lemongrass, ginger, magnolia and fresh-fragrance compositions.

The descriptions and specifications contained in this document are general values and should not replace batch-specific analytical information supplied through the applicable Certificate of Analysis.

Hazard Statement Abbreviations

- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.

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