

Material Safety Data Sheet

Citronellal (pract), 93% (gc)

ACC# 99408

Section 1 - Chemical Product and Company Identification

MSDS Name: Citronellal (pract), 93% (gc)

Catalog Numbers: AC405290000, AC405291000, AC405295000

Synonyms: 3,7-Dimethyl-6-octenal; Beta citronellal; 2,3-Dihydrocitra

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
106-23-0	l-Citronella	93	203-376-6

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless to slight yellow liquid. Flash Point: 75 deg C.

Caution! Causes respiratory tract irritation. Causes eye and skin irritation. **Combustible liquid and vapor.** The toxicological properties of this material have not been fully investigated.

Target Organs: No data found.

Potential Health Effects

Eye: Contact may cause irritation, tearing, and burning pain.

Skin: Causes skin irritation. May cause burning sensation on the face.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: Vapor or mist is irritating to the mucous membranes and upper respiratory tract. Inhalation of vapors may cause a burning sensation, bronchial constriction, choking, and/or coughing.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Combustible liquid. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. This material is lighter than water and insoluble in water. The fire could easily be spread by the use of water in an area where the water cannot be contained.

Flash Point: 75 deg C (167.00 deg F)

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 0; Flammability: 2; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Cover with sand, dry lime or soda ash and place in a closed container for disposal. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
I-Citronella	none listed	none listed	none listed

OSHA Vacated PELs: I-Citronella: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: colorless to slight yellow

Odor: lemon-citronella-rose odor.

pH: Not available.

Vapor Pressure: 0.230 mm Hg @ 20 deg C

Vapor Density: 5.31

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 89 deg C

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: .8510g/cm³

Molecular Formula: C₁₀H₁₈O

Molecular Weight: 154.25

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, strong oxidants.

Incompatibilities with Other Materials: Strong oxidizing agents, strong acids, strong bases.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, acrid smoke and fumes.

Hazardous Polymerization: Has not been reported

Section 11 - Toxicological Information

RTECS#:

CAS# 106-23-0: RH2140000

LD₅₀/LC₅₀:

CAS# 106-23-0:

Oral, rat: LD₅₀ = 2420 mg/kg;

Skin, rabbit: LD₅₀ = >2500 mg/kg;

Oral, rat :LD₅₀ >5 gm/kg; rabbit :LD₅₀ >2500

Carcinogenicity:

CAS# 106-23-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: No biodegradation data were available but the chemical structure of citronellal would suggest that biodegradation in soil or water would be important. Will have moderate mobility in soil and volatilization from moist surfaces is important. May not adsorb to suspended solids and sediment in water. May volatilize from water surfaces. Will bioconcentrate in aquatic organisms. Will exist in the vapor phase in the ambient atmosphere. Degraded in the atmosphere by reaction with photochemically produced hydroxyl radicals and by reaction with ozone.

Physical: Estimated half-lives for a model river and model lake are 7.8 hours and 6.2 days, respectively. Half-life for atmospheric degradation by photochemically produced hydroxy radicals: about 3.2 hours. Half-life for reaction with ozone: about 38 minutes.

Other: None.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 106-23-0 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 106-23-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 106-23-0: 1

Canada - DSL/NDSL

CAS# 106-23-0 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B3, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List**Section 16 - Additional Information**

MSDS Creation Date: 6/10/1999

Revision #3 Date: 10/03/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.