

MATERIAL SAFETY DATA SHEET

(Rev.1-May-2014)

Citronellyl Isobutyrate

Section 1: IDENTIFICATION OF THE SUBSTANCE AND OF COMPANY

Product Name	Citronellyl Isobutyrate
Chemical Name	3,7-dimethyloct-6-enyl isobutyrate
CAS No.	97-89-2
EINECS No.	202-616-7
Usage	In flavors and fragrances, an ingredient in the manufacturing of mixtures. Not intended for final consumer.
Manufacturer	Breeze Intermediates Pvt. Ltd. Z-39, Dahej SEZ, Dahej, Ta. Vagra, Dist. Bharuch (Guj.) India Tel.: +91 9825107638 Email: info@breezeipl.com
Emergency telephone no.	+91 9825107638, +91 9925031257

Section 2: HAZARDS IDENTIFICATION

Classification as per EC No. 1272/2008	This substance is not classified as dangerous according to Regulation (EC) No 1272/2008.
Classification as per Dir. 67/548/EEC	Xi-Irritant
OSHA Hazard	Combustible Liquid, Irritant
Label elements including precautionary statement	Need not to be labelled in accordance with EU directives or national laws.
Risk Phrases	R36/37/38 – Irritating to skin and eyes
HMIS Classification	Health hazard: 1 Flammability: 1 Physical hazards: 0
NFPA Rating	Health hazard: 1 Fire: 1 Reactivity Hazard: 0
Potential Health Effects	<u>Inhalation</u> : May be harmful if inhaled. Causes respiratory tract irritation. <u>Skin</u> : May be harmful if absorbed through skin. Causes skin irritation. <u>Eyes</u> : Causes eye irritation. <u>Ingestion</u> : Harmful if swallowed.
Other Hazards	The product does not contain substances included in the Substances of Very High Concern list (> 0.1 % w/w).

Section 3: INFORMATION ON INGREDIENTS

Concentration of the constituent	95-100% (%wt/wt)
Chemical name	3,7-dimethyloct-6-enyl isobutyrate
Chemical Entity	Non-conjugated and accumulated unsaturated straight-chain and branched-chain aliphatic primary alcohols/aldehyde/acids, acetals and esters with esters containing unsaturated alcohols and acetals containing unsaturated alcohols or aldehydes. No aromatic or heteroaromatic moiety as a component of an ester or acetal.
Molecular Formula	C ₁₄ H ₂₆ O ₂ (M.W.= 226.36 g/mol)
CAS No.	97-89-2



EC/EINECS No.	202-616-7
FEMA	2313

Section 4: FIRST AID MEASURES

Consumption (Ingestion)	If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Do not induce vomiting.
Eye Exposure	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Inhalation	If inhaled, remove person to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.
Skin Exposure	Wash immediately affected area with soap and plenty of water. Seek medical advice if irritation, pain, swelling, lacrimation or photophobia persists.
Most important symptoms and effects, both acute and delayed	Symptoms on inhalation: Choking, drowsiness, respiratory disruptions. Symptoms on eye contact: Irritation, reddening. Symptoms on skin contact: Irritation, stinging. Symptoms on ingestion: queasiness, stomach aches.
Immediate medical attention special treatment	Not applicable.
Others	Take Risk and Safety Phrases (section 15) into account

Section 5: FIRE-FIGHTING MEASURES

Extinguishing Media	Water spray, Alcohol-resistant foam, carbon dioxide, dry chemical powder or appropriate foam. For safety reasons do not use full water-jet.
Hazards arising from the substance	Not applicable.
Combustible Liquid	Keep away from source of heat, flame or spark. Cool endangered drums with water.
Advices for firefighters	In case of fire on the surrounding, follow the instructions: 1-Closed containers may build up pressure at elevated temperatures. 2-Avoid inhalation of generated fumes or vapors. Use appropriate respiratory equipment. 3-Do not allow the spillage of the fire extinguishing to sink into a drainage system or water area.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Handle the product using protective gloves resistant to the chemicals exposed. Avoid contact with skin and inhalation of its vapours or smoke. Maintain adequate ventilation in the working area after spilling.
Environmental precautions	To avoid possible contamination of the environment. Do not discharge into any drains, surface waters or groundwaters



Methods and material for containment and cleaning up	Cover with an inert, inorganic, non-combustible absorbent material (e.g. dry-lime, sand, soda ash). Place incovered containers using non-sparking tools and transport outdoors. Avoid open flames or sources of ignition (e.g.pilot lights on gas hot water heater). Ventilate area and wash spill site after material pickup is complete. Dispose of in accordance with current laws and regulations.
Reference to other sections	Refer to section 13 Disposal considerations

Section 7: HANDLING AND STORAGE

Precautions for safe handling	Keep away from food, drink and animal feedingstuffs. When using do not smoke. Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.
Condition for Storage	Should be stored in tightly sealed and preferably full containers in a cool, well-ventilated, dry place, out of direct rays of the sun, Away from areas of high fire hazard, & should be periodically inspected. Incompatible materials should be isolated from each other.
Specific end use(s)	Not available

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters	Declaration of substances is not required.
Exposure controls	<p><u>Personal protection equipment:</u> Use personal protection equipment according to Directive 89/686/EEC.</p> <p><u>Eye/Face protection:</u> Chemical safety goggles are recommended. Wash contaminated goggles before reuse.</p> <p><u>Respiratory Protection:</u> Use personal breathing apparatus whenever deemed necessary.</p> <p><u>Skin Protection:</u> Avoid contact with skin. Compatible chemical-resistant gloves are recommended. Wash contaminated gloves before reuse.</p> <p><u>Engineering Controls-Ventilation:</u> The areas where the product is handled and stored should be adequately ventilated.</p>

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless liquid
Odor	Characteristic, Fruity, sweet, rosy
Boiling point	249°C @ 760 mmHg
Flash point (closed cup)	>100 °C
Ignition Temperature	No data available
Auto Inflammability	Not Determined
Explosive Property	Not Determined
Oxidizing Property	Not Determined
Vapour Pressure	0.005000 mm/Hg @ 20 °C
Vapour Density	7.7 (Air=1)
Solubility in Water	0.6792 mg/L @ 25 °C (est.)
Solubility in Alcohol	1:6 in 80% alcohol
Specific Gravity	0.870 – 0.880 @ 25 °C
Partition Coefficient(Octanol/Water)	5.068 (est)



Section 10: STABILITY AND REACTIVITY

Chemical stability	Stable under normal operational condition.
Reactivity	Heat, excessive heat, open flames and other sources of ignition. Strong oxidizing agents, strong reducing agents.
Incompatibility	Does not react with water. Avoid contact with strong oxidizing mineral acids, strong reducing agents.
Hazardous decomposition Products	Hazardous combustion or decomposition products: carbon oxides and other unidentified organic compound.

Section 11: TOXOLOGICAL INFORMATION

Acute toxicity	Oral - rat LD50 5000 mg/kg Skin-rabbit LD50 Not determined
Inhalation Toxicity (LD ₅₀)	Not determined
Skin corrosion/irritation	No data available
Human Experience	4% in petroleum produced no irritation or sensitization
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	<u>IARC</u> : No component of this product present at levels $\geq 0.1\%$ is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No data available
Specific target organ toxicity single exposure (GHS)	No data available
Specific target organ toxicity repeated exposure (GHS)	No data available
Aspiration hazard	No data available
Potential health effects	<u>Inhalation</u> : May be harmful if inhaled. Causes respiratory tract irritation. <u>Ingestion</u> : Harmful if swallowed. <u>Skin</u> : May be harmful if absorbed through skin. Causes skin irritation. <u>Eyes</u> : Causes eye irritation.
Signs and Symptoms of Exposure	No data available
Additional Information	RTECS: Not available

Section 12: ECOLOGICAL INFORMATION

General	Prevent contamination of soil, ground and surface waters. Do not discharge product unmonitored into the environment.
Acute aquatic Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvB assessment	Not determined. Not listed on EC's PBT substances list.
Other adverse effects	Do not allow the material to enter streams, sewers or other waterways



Section 13: DISPOSAL CONSIDERATION

Product Disposal	Dispose of according all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.
Packaging	Don not re-use empty containers. Empty residue into a suitable disposal site. Contaminated packaging should be disposed of as unused product.

Section 14: TRANSPORT INFORMATION

<i>International Carriage of Dangerous Goods by Road (ADR)</i>	
UN No.	N/A
Proper Shipping Name	Not subject to ADR.
Packing Group	---
Class	---
Tunnel restriction code	---
Label	---
<i>Air Transport (ICAO/IATA)</i>	
UN No.	Not Regulated
Proper Shipping Name	Not restricted
Class	---
Packing Group	---
<i>Sea Transport (IMDG)</i>	
UN No.	Not Regulated
Proper Shipping Name	Not restricted
Class	---
Packing Group	---
EmS	---
Marine Pollutant	No

Section 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance	Substance(s) is(are) either included in EINECS, ELINCS, NPL inventories or exempted
Hazard Symbol	Xi- Irritant
Risk Phrases	R 36/38 - Irritating to skin and eyes.
Safety Phrases	S 02 - Keep out of the reach of children. S 26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 36 - wear suitable protective clothing
WGK Germany	2
Chemical safety assessment	For this product a chemical safety assessment was not carried out



Section 16: OTHER INFORMATION

Hazardous materials identification system	Fire:1	Health:1	Reactivity: 0	Personal Protection:B
This material should be used for industrial purposes only.				

DISCLAIMER

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