



Chemistry for Safer, Sustainable Life

Menthyl Formate SAFETY DATA SHEET

Section 1: Identification

Product Name: Menthyl formate

CAS Synonym: 2-isopropyl-5-methylcyclohexyl formate, formic acid menthol ester, (5-methyl-2-propan-2-ylcyclohexyl) formate

CAS: 2230-90-2

Molecular Formula: C₁₁H₂₀O₂

Molecular weight: 184.28g/mol

Product ID: MENFO00100

Potential Uses: Fragrance ingredient providing minty scent

Product Supplier: BioFuran Materials LLC

920 William Pitt Way, Pittsburgh, PA 15238

In an emergency or for information about this SDS, call: 412-376-7101

Section 2: GHS Hazard(s) Identification

Hazard Classification: Flammable liquid (Category 4), Skin irritant (Category 2), Eye irritant (Category 2A)

Hazard Statements: Flammable liquid and vapor - H226

Causes skin irritation – H315

Causes serious eye irritation – H319

Signal Word(s): Warning

Pictograms:



Precautionary Statements:

P210 – Keep away from heat, sparks, open flames. No smoking allowed near this material

P262 – If in eyes, rinse thoroughly with water for several minutes. Wear eye protection / face protection

P264 – Wash hands thoroughly after handling

P280 – Wear protective gloves / protective clothing, eye protection / face protection

P332+P313 – If skin irritation occurs, get medical advice / attention

P305+P351+P338 – If in eyes, rinse thoroughly with water for several minutes. Remove contact lenses if present. Continue rinsing for several minutes.

P337+P313 – If eye irritation persists, get medical advice/attention

Description of other hazards: No other hazards

Section 3: Composition/ Information on Ingredients

| Chemical Name | Synonym | CAS# | Conc. |
|-----------------|---------------------------|-----------|---------|
| Menthyl formate | Formic acid menthol ester | 2230-90-2 | 95-100% |

Section 4: First-Aid Measures

After skin contact: Wash off with soap and plenty of water. Consult a physician if symptoms persist.

After eye contact: Flush thoroughly with plenty of water for at least 15 minutes and consult a physician.

After inhalation: If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

After swallowing: Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Consult a physician.

Section 5: Fire-Fighting Measures

Fire hazards: Burning of substance in fire releases toxic gases. In case of a fire, wear self-contained breathing apparatus as combustion may produce hazardous fumes.

Suitable extinguishing agents: Use water spray, sand, dolomite, dry chemical or carbon dioxide.

Special protective equipment for firefighters: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes.

Section 6: Accidental Release Measures

Personal precautions: Wear protective equipment and avoid inhalation of fumes as well as eye and/or skin contact.

Measures for environmental protection: Do not dispose product or its residues in municipal sewers or drains. Notify authorities if product enters sewers or public waters.

Measures for cleaning/collecting: Pick up and arrange disposal without creating splashes or fumes. Mop up any spillages and keep all product wastes and residues in suitable, closed containers for proper disposal.

Section 7: Handling and Storage

Handling: Keep away from heat, sparks, and open flames. Do not use substance in confined spaces without adequate ventilation. Avoid contact with skin and eyes. Use a respirator when working in poorly ventilated spaces.

Storage: Keep container tightly closed in a dry, well ventilated area.

Section 8: Exposure Controls/Personal Protection

Protection of hands: Neoprene or nitrile rubber gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact. Dispose used gloves after use in line with good laboratory practices.

Body protection: Wear chemical resistant aprons, coveralls, or lab coats.

Eye protection: Chemical goggles with side shields conforming to NIOSH (US). Contact lenses should not be worn.

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

Breathing equipment: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified P95 respirator is recommended.

Section 9: Physical and Chemical Properties

Form: Yellow-orange liquid

Odor: minty scent

pH: No data available

Melting point/melting range: No data available

Boiling point/boiling range: 225-233°C

Flash point: 84-90°C

Flammability: No data available

Vapor pressure: No data available

Solubility in/miscibility with water: Insoluble in water, soluble in alcohols, oils, paraffins, etc.

Viscosity: 1.4-3.4 Cp (@ 25°C)

Surface tension: 26-32 dyne/cm

Relative density: 0.91-0.95g/mL

Section 10: Stability and Reactivity

Reactivity: No particular reactivity concerns

Chemical stability: Stable under ambient conditions

Conditions to avoid: Avoid high heat, sparks, and flames

Incompatible materials: Hydroxides, soluble carbonates, strong oxidizing agents, sulfuric acid

Hazardous decomposition products: Oxides of carbon (CO_x)

Section 11: Toxicological Information

Acute toxicity: No data available

Potential routes of exposure/potential health effects

Skin: Causes skin irritation

Eye: Causes eye irritation

Inhalation: May cause dizziness or drowsiness

Ingestion: No data available

Carcinogenic effects: No data available

Mutagenic effects: No data available

Reproductive toxicity: No data available

Sensitization: No data available

Target organs: No data available

Section 12: Ecological Information

Ecotoxicity: No data available

Mobility: No data available

Biodegradation: Readily biodegradable

Bioaccumulation: No data available

Avoid disposal in public sewers and drains

Section 13: Disposal Considerations

This material or its residues should not be disposed in drains or in regular trash cans. Contact a licensed waste disposal professional to dispose this material or its residues.

Section 14: Transport Information

DOT regulations: Combustible liquid not classified as dangerous goods

- **Land transport ADR/RID (cross-border):** Not classified as dangerous for road transport
- **Maritime transport IMDG:** Not classified as dangerous for sea transport
- **Air transport ICAO-TI and IATA-DGR:** Not classified as dangerous for air transport

- **Shipping name:** linalyl acetate
- **Packaging group:** III
- **Maritime transport:** Not classified as a marine pollutant

Section 15: Regulatory Information

OSHA Hazards: Combustible liquid

P262: Avoid contact of substance with eyes, skin, or on personal clothing.

P280: Wear nitrile gloves, apron (or lab coat), goggles, and face protection

P305 + P351 + P338: If in the eyes, remove contact lenses if present and rinse continuously with water for several minutes

P313: Get medical attention / advice

S24/25: Avoid contact with the skin or eyes

S26: In case of contact with the skin or eyes, rinse immediately with plenty of water and seek medical advice

S28: In case of contact with the skin, wash immediately with plenty of water and soap

S36/37/39: Wear suitable protective clothing including lab coat, safety goggles, nitrile gloves, and face protection

Menthyl formate is listed on the United States TSCA

Section 16: Other Information

SDS date of preparation/update: 01/04/2020 Version 001

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