

SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-T-82979
Product Name	β -Myrcene
CAS No.	123-35-3
Category	Intermediate
Synonyms	beta-Myrcene
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email sales@clearsynth.com for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Skin irritation (Category 2)

Serious eye damage/eye irritation (Category 2)

2.2 Label Elements

Signal Word: Warning



Hazard Statement(s)

Code	Statement
H226	Not available
H304	Not available
H315	Causes skin irritation.

H319	Causes serious eye irritation.
H400	Not available
H412	Not available
H351	Not available
H360	Not available
H410	Not available
H361	Not available

Precautionary Statement(s)

Code	Statement
P210	Not available
P233	Not available
P240	Not available
P241	Not available
P242	Not available
P243	Not available
P264	Wash hands thoroughly after handling.
P264+P265	Not available
P273	Not available
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P316	Not available
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P303+P361+P353	Not available
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present.
P321	Specific treatment (see ... on this label).
P331	Not available
P332+P317	If skin irritation occurs: Get medical help.
P337+P317	If eye irritation persists: Get medical help.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	Not available

P391	Not available
P403+P235	Not available
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation
P203	Not available
P318	Not available

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : β -Myrcene

CAS Number : 123-35-3

Molecular Formula : C₁₀H₁₆

Molecular Weight : 136.24

Parent Chemical : Myrcene

Synonyms : beta-Myrcene

Concentration : Not available

SECTION 4: First aid measures

Not available

SECTION 5: Firefighting measures

Not available

SECTION 6: Accidental release measures

Not available

SECTION-7: Handling and storage

Not available

SECTION 8: Exposure controls / personal protection

Not available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

Not available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: LD50: >5000.00 mg/kg (Oral, Rat) (L1203) LD50: >5000.00 mg/kg (Dermal, Rabbit) (L1203)

/LABORATORY ANIMALS: Acute Exposure/ ... An un-optimized analytical method was developed to support a preliminary toxicokinetic study of beta-myrcene in F344 rats treated with a single /intravenous/ dose. The method used gas chromatography with flame ionization detection (GC/FID). A nine-point spiked matrix (plasma) curve was prepared at a beta-myrcene concentration range of /about/ 0.06 to /about/ 100 ug/mL in plasma. Each spiked standard was treated with acetonitrile to precipitate proteins and extracted with 400 uL of a hexane solution of 1-undecene (internal standard). An aliquot of the hexane layer was transferred to a GC autosampler vial for analysis. The spiked matrix curve was found to be linear, with a correlation coefficient > or =0.999. The mean percent recovery for the matrix curve was 75.4 +/-2.8 (s)% relative to the corresponding solvent standards. For beta-myrcene in rat plasma, the experimental limit of quantitation (ELOQ) for the un-optimized method was 0.06 ug/mL. Beta-myrcene was not detected in any of the blanks. Following method development, a pilot toxicokinetic study was conducted in five F344 female rats administered a single intravenous injection of beta-myrcene at 40 mg/mL, with plasma sampled at 5, 15, 30, 60, and 90 minutes post-dose. The plasma concentration was relatively consistent across all time-points, 0.14 ug/mL, with individual samples ranging from 0.07 to 0.16 ug/mL

- Skin corrosion/irritation: No data available.

- Serious eye damage/eye irritation: No data available.

- Respiratory or skin sensitization: No data available.

- Germ cell mutagenicity: No data available.

- Carcinogenicity: /LABORATORY ANIMALS: Chronic Exposure or Carcinogenicity/ / Groups of 50 male and 50 female rats were administered 0, 0.25, 0.5, or 1 g beta-myrcene/kg body weight in corn oil by gavage, 5 days per week for 105 weeks./ Under the conditions of these 2-year gavage studies, there was clear evidence of carcinogenic activity of beta-myrcene in male F344/N rats based on increased incidences of renal tubule neoplasms. There was equivocal evidence of carcinogenic activity of beta-myrcene in female F344/N rats based on increased incidences of renal tubule adenoma. /Groups of 50 male and 50 female mice were administered 0, 0.25, 0.5, or 1 g beta-myrcene/kg body weight in corn oil by gavage, 5 days per week for 104 or 105 weeks./ There was clear evidence of carcinogenic activity of beta-myrcene in male B6C3F1 mice based on increased incidences of hepatocellular adenoma, hepatocellular carcinoma, and hepatoblastoma. There was equivocal evidence of carcinogenic activity of beta-myrcene in female B6C3F1 mice based on marginally increased incidences of hepatocellular adenoma and carcinoma. Administration of beta-myrcene induced nonneoplastic lesions in the kidney of male and female rats, nose of male rats, and liver of male and female mice.

- Reproductive toxicity: No data available.

- STOT-single exposure: No data available.

- STOT-repeated exposure: /LABORATORY ANIMALS: Subchronic or Prechronic Exposure/...Male and female Fischer 344/N rats and B6C3F1 mice (10/sex/group) were administered myrcene (~100% pure) in corn oil by gavage at dosages of 0 (control), 0.25, 0.5, 1.0, 2.0, or 4.0 g/kg, 5 days/week for approximately 13 weeks. 10/10 (4.0 g/kg male and female), 2/10 and 4/10 (2.0 g/kg male and female, respectively) rats, and 10/10 (4.0 g/kg male and female), 9/10 and 8/10 (2.0 mg/kg male and female, respectively) mice died during the study. Mean body weights for rats and mice at termination were similar to controls for all treated groups except the 1.0 and 2.0 g/kg male rats (<90% of control) and the single 2.0 g/kg male mouse (<80% of control). Increases in liver and kidney weights (absolute and/or relative) were measured in both rats and mice. At termination, significant increases in reticulocytes were observed in male rats and significant decreases in red blood cell numbers, hemoglobin, and hematocrit were observed in both sexes of mice. Non-neoplastic histopathologic changes observed in treated group(s) of rats and mice included renal tubular degeneration/ necrosis, nasal olfactory epithelial degeneration/inflammation, splenic and thymic atrophy, and forestomach hyperplasia/inflammation/ulcers; harderian gland porphyrin pigmentation in rats; bone marrow atrophy and hepatic centrilobular hypertrophy/necrosis in mice. /LABORATORY ANIMALS: Subchronic or Prechronic Exposure/ The aim of this study was to investigate the effectiveness of curcumin,

beta-myrcene (myrcene) and 1,8-cineole (cineole) on antioxidant defense system in rats given a persistent environmental pollutant (2,3,7,8-tetrachlorodibenzo-p-dioxin, TCDD). Rats (n = 112) were divided randomly into 8 equal groups. One group was kept as control and given corn oil as carrier. TCDD was orally administered at the dose of 2 ug/kg/week. Curcumin, myrcene and cineole were orally administered at the doses of 100 mg/kg/day, 200 mg/kg/day and 100 mg/kg/ day, respectively, by gavages dissolved in corn oil with and without TCDD. The liver samples were taken from half of all rats on day 30 and from the remaining half on day 60 for the determination of thiobarbituric acid reactive substances (TBARS), reduced glutathione (GSH), catalase (CAT), glutathione peroxidase (GSH-Px) and CuZn-SOD levels by spectrophotometric method. The results indicated that although TCDD significantly ($p < \text{or} = 0.01$) increased formation of TBARS, it caused a significant decline in the levels of GSH, CAT, GSH-Px and CuZn-SOD in rats. In contrast, curcumin, myrcene and cineole significantly increased GSH, CAT, GSH-Px and CuZn-SOD levels but decreased formation of TBARS. Additionally, the antioxidative effects of curcumin, myrcene and cineole were increased at day 60 compared to day 30. In the TCDD groups given curcumin, myrcene and cineole, oxidative stress decreased by time. In conclusion, curcumin, myrcene and cineole showed antioxidant activity and eliminated TCDD-induced oxidative stress in rats in a time-dependent manner.

- Aspiration hazard: No data available.

Likely routes of exposure

- No data available.

Symptoms related to the physical, chemical and toxicological characteristics

- Health effects may include dermatitis (A334).

SECTION 12: Ecological information

Not available

SECTION 13: Disposal considerations

Not available

SECTION 14: Transport information

Not available

SECTION 15: Regulatory information

Not available

SECTION 16: Other information

Not available

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