HIMALAYA TERPENES PVT. LTD.

201/5, Jogani Industrial Estate, V.N. Purav Marg, Chunabhatti Mumbai – 400022.

Tel: +91-22-24056704/05 Fax: +91-22-24056700 Email: mum@himalayaterpene.com

MATERIAL SAFETY DATA SHEET

DIPENTENE

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY:

PRODUCT NAME	DIPENTENE
SUPPLIER	M/S. HIMALAYA TERPENES PVT. LTD. UNIT NO. 201, BLDG. NO. 5, JOGANI INDL. COMPLEX, V. N. PURAV MARG, SION – CHUNABHATTI, MUMBAI – 400 022

2. COMPOSITION / INFORMATION IN INGREDIENTS:

SYNONYM	TERPENE
HYDROCARBON CAS No.	68956-56-9
USE	Varied applications

3. HAZARDS IDENTIFICATION:

NFPA CODES: Health : 1 Fire : 2 Reactivity : 0
(Degree of Hazard : 4= Extreme, 3= High, 2=Moderate, 1 = Slight, 0 = Insignificant

HEALTH EFFECTS

SKIN	:	Irritant, may cause temporary redness. Mild local irritation and sensitization. Intensive or continuous contact with skin may cause dermatitis.
EYES	:	Irritant, may cause burning, redness, pain.
BY ACCIDENTAL INGESTION	:	Harmful if ingested, gastrointestinal irritation. Abdominal pain, nausea, vomiting, dizziness.
INHALATION	:	Irritant to respiratory tract, sore throat, coughing, shortness of breath, dizziness, nausea.
BY PRESSURE INJECTION	:	Injection of all products will cause severe internal damage if not properly treated.
OTHER	:	Kidney damage may occur (route of exposure not reported).

4. FIRST AID MEASURES:

EMERGENCY AND FIRST AID PROCEDURES:

SKIN CONTACT	:	Wash affected area with copious amounts of soap and water.
EYES CONTACT	:	Remove any contact lenses at once. Flush eyes well with large quantities of water for at least 15 min. See physician immediately.

ACCIDENTAL INGESTION	:	For small amounts, give milk of magnesia or a glass or two of water or milk. For large quantities, consult a physician.
INHALATION	:	If symptoms of overexposure are experienced, evacuate to fresh air. If symptoms persist, seek medical attention.

DIPENTENE

5. FIRE FIGHTING MEASURES:

Flash Point (TCC) : 115°F (46.1°C) Identification No.: UN 2052
Extinguishing Media : Regular Foam, CO_2, Dry Chemical (Class B)

Special Fire Fighting Procedures and Equipment: DO NOT use water. As with any fire situation, full face, self-contained breathing apparatus and appropriate protective clothing should be worn. Under fire conditions, this product may release CO_1, CO_2, and other decomposition products of undetermined hazard, Water is unsuitable for use on burning material, but may be used to cool containers exposed to heat.

6. ACCIDENTAL RELEASE MEASURES:

Step to be Taken in Case Material is Released or Spilled: Use protective gloves to avoid skin contact. Small spills can be wiped up with vermiculite or other suitable absorbent material and removed to an approved disposal container. Large spills should be absorbed by dirt, sand or other suitable absorbents for disposal. Do not hose spills down drains. Move leaking containers to well ventilated area. No Smoking eliminate any source of ignition. Avoid inhalation. Use NIOSH – approved respiratory protection device.

Waste Handling & Disposal Method: Dispose of in accordance with Federal, State and Local environmental regulations.

7. SPECIAL PRECAUTIONS:

Handling and Storage Precautions: Store in glass, tin-lined, stainless steel or epoxy-lined containers to preserve quality. Do not store in plastic. Store in closed containers away from heat or sources of ignition and oxidizing materials. Protect against physical damage to containers. Avoid inhalation and contact with skin and eyes.

Other Precautions: Do not dispose of solvent or oil-soaked combustible materials (rags, paper, etc.) in an open container or trash can. Place rags in approved waste cans or soak with water.

8. OCCUPATIONAL PROTECTIVE MEASURES:

Respiratory Protection	:	Not normally needed in well ventilated areas. If vapor concentration is high, use NIOSH-approved respiratory protection device.
Ventilation	:	General mechanical ventilation (to reduce fumes)
Protective Gloves	:	Neoprene or Rubber.
Eye Protection	:	OSHA – approved safety glasses with side shields.
Other Protective Equipment:		Eye bath and safety shower.
Work / Hygienic Practices	:	Good personal hygiene practices should be used. Wash after any contact, before eating, and at the end of the work period.

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9. PHYSICAL AND CHEMICAL PROPERTIES:

Boiling Point : (760 mm Hg)	351°F (177.2°C)	Odor :	Mild Pine Aroma
Vapor Pressure : : 4.80 (mm Hg @20°C)	< 2 mm	Vapour Density (Air – 1)	
Specific Gravity : – 1.477 (H_2O = 1)	0.850 – 0.875	Refractive Index : 1.468 (@20°C)	
Solubility in Water :	Insoluble	Evaporation Rate : 4.4 (butly acetate = 1)	

DIPENTENE

10. STABILITY AND REACTIVITY:

STABILITY	:	Stable under ordinary conditions of use and storage.
HAZARDOUS DECOMP. PRODUCTS :		Burning produces Carbon Monoxide and / or Carbon
Dioxide. HAZARDOUS POLYMERIZATION		:Will not occur.
INCOMPATIBILITIES	:	Avoid strong oxidizing agents. Do not store in plastic containers. Avoid exposure to sparks, heat and flames.

11. HEALTH HAZARD DATA:

OSHA	:	Combustible Liquid
SIGNS AND SYMPTOMS OF irritation. ACUTE & CHRONIC EXPOSURE	:	Eye, Skin and mucous membrane
PRIMARY ROUTE OF ENTRY	:	Inhalation and Absorption
MEDICAL CONDITIONS inflammation. AGGRAVATED	:	Eye, skin and upper respiratory

EMERGENCY AND FIRST AID PRCEDURES:

SKIN	:	Wash affected area with copious amounts of soap and water.
Eye	:	Remove any contact lenses at once. Flush eye well with large quantities of water for at least 15 minutes. See a physician immediately.
ACCIDENTAL INGESTION	:	For small amounts, give milk of magnesia or a glass or two of water or milk, For large quantities, consult a physician.
INHALATION	:	If symptoms of overexposure are experienced, evacuate to fresh air. If symptoms persist, seek medical attention.

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12. ECOLOGOICAL INFORMATION:

"Marine Pollutant : Classified as slight hazard for water WGK-1 (self statement)"

ECOTOXICITY : FISH TOXICITY	:	LC-0 = 26 mg/l LC-50 = 33 mg/l LC-100 = 43 mg/l
OZONE DEPLETION POTENTIAL	:	Zero Stratospheric
GLOBAL WARMING POTENTIAL	:	Zero
PHOTODEGRADABILITY	:	Atmospheric half-life – c.a. 1 hour (Note: d-Limonene, in common with other terpenes, represent a major sink for the undesirable troposheric ozone, removing the smog-forming catalyst nitrogen oxides and consuming ozone at an increased rate at night. While the material is photoreactive, the benefits of removing ozone and nitrogen oxides outweigh the negative with hydroxyl radical)
OTHER DATA	:	Chemical oxygen demand : 2.850 gO_2/l or 3.280 gO_2/kg

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13. DISPOSAL CONSIDERATION:

WASTE HANDLING & DISPOSAL METHOD	:	Dispose of in accordance with Federal, State and Local environmental regulations. In most cases land fill or incineration would apply. There are no uniform EC regulations for the disposal of chemicals or residues. Chemical residues generally are applied as "special waste". We recommend that you contact either the authorities in charge or approved waste companies which will advise you on how to dispose of special waste. DO not allow to enter drinking water supplier, waste water or soil without municipal authorization.

14. TRANSPORT INFORMATION:

SHIPPING CLASSIFICATIONS

U. S. DOT	:	Drums – Dipentene, Class 65, PG III Bulk – Dipentene, Combustible Liquid, UN 2052
Int'l / Air Freight	:	UN 2052 – Dipentene, Class 3, Flammable Liquid

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15. REGULATORY INFORMATION:

1) FDA & FEMA list d-Limonene as GRAS – Generally Regarded As Safe.
2) NTP, OSHA, and IARC do not list product as carcinogenic to humans.
3) Unused product is not list by EPA as hazardous waste (40 CFR part 26 IQ).
4) Dipentene is not listed on California's Prop. 65 toxic substance list.
5) Dipentene is listed on EPA's Chemical Inventory, PL94-469, however, not on EPA's CORP (Chemicals Or Regulatory Rules) list, which contains those materials which pose a health or environmental risk.
6) Dipentene does not contain lead, cadmium, mercury, or hexavalent chromium or come into contact with these chemicals since it is pine derived by-product oil produced by distillation.
7) The components of this product are included on the EPA TSCA Chemical Substance Inventory.
8) The components of this product are included on Canada's Domestic Substance List (DSL).

16. OTHER INFORMATION:

VOC INFORMATION	:	Dipentene is reportable as
95 % VOC. ASTM D1364	:	< 0.1 % Water.
EPA 24 DENSITY	:	0.8422 Kg/l Density
DISCLAIMER	:	The foregoing data has been compiled for safety information only and does not part of any selling specification. Information contained in this Data Sheet is to the best of M/s. Himalaya Terpenes Pvt. Ltd. knowledge correct at the time of publication. Customers should always satisfy themselves, that the product which they have selected is entirely suitable for their purpose under their conditions of use and in compliance with current regulations. For any further information, please contact the supplier.