

Material Safety Data Sheet (MSDS / SDS)

Isoamyl Alcohol (Isopentanol) - Technical Grade

SECTION 1: Identification

Product Name	Isoamyl Alcohol (3-Methyl-1-Butanol), Technical Grade
Synonyms	Isoamyl Alcohol, Isopentanol, Isopentyl Alcohol, 3-Methyl-1-Butanol
CAS No.	123-51-3
Recommended Use	Solvent and chemical intermediate for ester (flavour/fragrance) synthesis, laboratory extraction reagent, and paint/lacquer solvent
Manufacturer / Supplier	Ochnology Solution Pvt. Ltd., B-153, Sector-4 Defence Colony, Dehradun, Uttarakhand, India - 248001
Telephone	+91 9286823642/43
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SECTION 2: Hazard(s) Identification

GHS Classification: Flammable Liquid Category 3 (H226); Acute Toxicity Oral Category 4 (H302); Skin Irritation Category 2 (H315); Serious Eye Damage/Irritation Category 2 (H319); Specific Target Organ Toxicity - Single Exposure, Respiratory Irritation and Narcotic Effects Category 3 (H335, H336)

Signal Word: Warning

Hazard Statements:

- H226 - Flammable liquid and vapour
- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H335 - May cause respiratory irritation
- H336 - May cause drowsiness or dizziness

Precautionary Statements:

- P210 – Keep away from heat, hot surfaces, sparks, open flames – No smoking
- P233 – Keep container tightly closed
- P240 – Ground/bond container and receiving equipment
- P241 – Use explosion-proof electrical/ventilating/lighting equipment
- P261 – Avoid breathing vapours
- P264 – Wash hands thoroughly after handling
- P271 – Use only outdoors or in a well-ventilated area
- P280 – Wear protective gloves/eye protection
- P303+P361+P353 – IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water
- P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do; continue rinsing
- P312 – Call a POISON CENTER/doctor if you feel unwell
- P403+P235 – Store in a well-ventilated place. Keep cool

SECTION 3: Composition / Information on Ingredients

Component	CAS No.	Concentration (w/w)
Isoamyl Alcohol (3-Methyl-1-Butanol)	123-51-3	Min. 98%
2-Methyl-1-Butanol (isomer, natural co-component)	137-32-6	< 2% (typical for commercial-grade material)

SECTION 4: First-Aid Measures

Eye Contact	Rinse immediately with plenty of water for several minutes, holding eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.
Skin Contact	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation persists.
Inhalation	Move to fresh air immediately. If breathing is difficult, give oxygen if trained to do so. Seek medical attention if dizziness, drowsiness or respiratory discomfort persists.
Ingestion	Do NOT induce vomiting – risk of aspiration into the lungs. Rinse mouth with water. Seek medical attention immediately.

SECTION 5: Fire-Fighting Measures

- Flammable liquid (flash point $\approx 43\text{--}45^{\circ}\text{C}$) – keep away from heat, sparks and open flame
- Suitable extinguishing media: dry chemical, CO₂, foam, water spray/fog – avoid a direct water jet, which can spread a flammable-liquid fire
- Vapours are heavier than air and can travel along the ground to an ignition source and flash back
- Fire-fighters should wear SCBA and full protective equipment in enclosed or heavily smoke-logged conditions

SECTION 6: Accidental Release Measures

- Eliminate all ignition sources; ventilate the area
- Contain the spill and absorb with inert absorbent material (sand, vermiculite, earth); collect in suitable containers for disposal
- Use non-sparking tools and explosion-proof equipment during clean-up
- Prevent entry into drains, sewers or waterways

SECTION 7: Handling and Storage

- Keep away from heat, sparks, open flame and other ignition sources
- Use explosion-proof electrical/ventilating equipment where vapours may accumulate
- Ground/bond containers and equipment during transfer to control static discharge
- Store in a cool, dry, well-ventilated area away from strong oxidising agents
- Keep containers tightly closed to minimise vapour release and evaporation

SECTION 8: Exposure Controls / Personal Protection

Occupational Exposure Limits

ACGIH TLV (approx.): 100 ppm, 8-hr TWA for isoamyl alcohol – confirm current jurisdiction-specific limit

Engineering Controls

Local exhaust ventilation and explosion-proof equipment where

	vapours may accumulate
Eye/Face Protection	Chemical splash goggles recommended when handling
Hand Protection	Chemical-resistant gloves (nitrile or neoprene) recommended
Respiratory Protection	Organic vapour cartridge respirator recommended if ventilation is inadequate or vapour concentrations are elevated

SECTION 9: Physical and Chemical Properties

Property	Unit	Value
Appearance	–	Colourless liquid
Odour	–	Strong, characteristic banana-like/pungent alcohol odour
Boiling Point	°C	≈ 131
Flash Point (Closed Cup)	°C	≈ 43 – 45
Density @ 20°C	g/cm ³	0.809 – 0.812
Solubility in Water	–	Slightly soluble (≈ 2.7 g/100mL)
Autoignition Temperature	°C	≈ 350

SECTION 10: Stability and Reactivity

- Stable under normal conditions of storage, handling and use
- Flammable vapours can form explosive mixtures with air within the flammable range
- Incompatible materials: strong oxidising agents (fire/explosion risk), strong acids
- Keep away from heat and all ignition sources

SECTION 11: Toxicological Information

- Moderate acute oral toxicity – harmful if swallowed
- Causes skin and eye irritation on direct contact
- Inhalation of vapours may cause respiratory irritation, headache, dizziness and drowsiness (CNS depressant/narcotic-like effects at high vapour concentrations)
- Repeated or prolonged skin contact may cause defatting and dermatitis
- Not classified as carcinogenic, mutagenic, or toxic to reproduction based on available information

SECTION 12: Ecological Information

- May be harmful to aquatic organisms at elevated concentrations based on available data for this class of alcohol
- Considered readily biodegradable, consistent with published data for aliphatic alcohols of this type
- Avoid release to waterways as general environmental good practice

SECTION 13: Disposal Considerations

- Dispose of product and packaging in accordance with local, state and national hazardous waste regulations (flammable liquid waste stream)
- Do not discharge to drains or waterways
- Use a licensed waste handler or incineration facility for bulk disposal

SECTION 14: Transport Information

UN Number	UN 1105
Proper Shipping Name	PENTANOLS
Transport Hazard Class	3 (Flammable Liquid)
Packing Group	III
Environmental Hazards	None specifically identified under standard transport classification criteria

SECTION 15: Regulatory Information

- Classified as a Dangerous Good (Class 3 Flammable Liquid, UN 1105) under IMDG/ADR/IATA – requires DG documentation and DG-compliant freight booking
- Widely listed on major chemical inventories (TSCA, REACH, ECL, etc.) as an existing/registered substance
- Buyers/importers should confirm import permits and flammable-liquid handling regulations applicable to their specific jurisdiction

SECTION 16: Other Information

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This SDS has been compiled based on general industry data and knowledge for Isoamyl Alcohol products of this type as commercially supplied. It is intended as a general handling and safety guide and does not replace a batch-specific SDS from the manufacturing mill, which should be obtained and reviewed for each shipment where regulatory submission is required.

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