



MATERIALS SAFETY DATA SHEET (MSDS) iso amyl alcohol (C5H12O)	MSDS Number:	
	Version number:	
	Date issued:	
	Page No:	

1. Product Identification

Chemical name	Isoamyl alcohol
Other means of identification	3-Methyl-1-butanol; Isopentyl alcohol
CAS No	123-51-3
Recommended use	Concentrated aromatic and flavor ingredient which may be used in flavor and fragrance compounds according to legal and IFRA or FEMA GRAS/FDA guidelines.
Recommended restrictions	For Manufacturing Use Only

Manufacturer/Importer/Supplier/Distributor information

Manufacturer Supplier	Entity 1 Made by India
E-Mail	
Contact Person	
Emergency Telephone	

2. Hazard(s) identification



Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 3
Acute Inhalation Toxicity - Vapors	Category 4



Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity (single exposure) Target Organs - Respiratory system.	Category 3

Hazard Statements	Flammable liquid and vapor Harmful if inhaled Causes skin irritation Causes serious eye irritation May cause respiratory irritation
Label elements	 
Signal Word	Warning
Precautionary Statements	
Prevention	Use only outdoors or in a well-ventilated area. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep cool.
Response	Get medical attention/advice if you feel unwell
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin	If skin irritation occurs: Get medical advice/attention IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Eyes	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Fire	In case of fire: Use CO2, dry chemical, or foam for extinction
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.



Disposal	Dispose of contents/container to an approved waste disposal plant.
Hazards not otherwise classified (HNOC)	Repeated exposure may cause skin dryness or cracking.

3. Composition and ingredient information

Chemical name	CAS number	%
Isoamyl alcohol	123-51-3	20

4. First-aid measures

Description of first aid measures

General Advice	If symptoms persist, call a physician.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
Ingestion	Do not induce vomiting. Obtain medical attention.
Inhalation	Move to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Obtain medical attention. If not breathing, Give artificial respiration.
Protection of First-aiders	Use personal protective equipment.
Most important symptoms and effects, both acute and delayed	Breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Indication of any immediate medical attention and special treatment needed	Notes to Physician: Treat symptomatically. Symptoms may be delayed

5. Fire-fighting measures

Extinguishing media	
Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray.
Extinguishing media which must not be used for safety reasons	Do not use a solid water stream as it may scatter and spread fire.



Special hazards arising from the substance or mixture	Flammable. Risk of ignition. Vapours may form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapours.
Hazardous Combustion Products	Carbon monoxide (CO), Carbon dioxide (CO ₂).
Advice for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges
Environmental precautions	Should not be released into the environment. See Section 12 for additional ecological information.
Methods and material for containment and cleaning up	Remove all sources of ignition. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Use spark-proof tools and explosion-proof equipment.

7. Handling and storage

Handling	Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not breathe mist/vapours/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges. Use only non-sparking tools.
Storage.	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Flammables area. Incompatible Materials. Strong oxidizing agents. Metals. Alkali metals. Halogens. Acids. Acid anhydrides. Acid chlorides. Isocyanates.

8. Exposure Control / Personal Protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isoamyl alcohol	TWA: 100 ppm STEL: 125 ppm	(Vacated) TWA: 100 ppm	IDLH: 500 ppm



		(Vacated) TWA: 360 mg/m ³ (Vacated) STEL: 125 ppm (Vacated) STEL: 450 mg/m ³ TWA: 100 ppm TWA: 360 mg/m ³	TWA: 100 ppm TWA: 360 mg/m ³ STEL: 125 ppm STEL: 450 mg/m ³
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Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures	Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	
Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Tight sealing safety goggles. Face protection shield.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical state	Liquid
Colour	Colourless.
Appearance	Clear liquid.
Molecular mass	88.15 g/mol
Odour	Not available
Odour threshold	Not available
Melting point	Not applicable
Freezing point	-117 °C



Boiling point	130 °C
Flammability	Flammable liquid and vapour, Not applicable
Lower explosion limit	1.2 vol %
Upper explosion limit	8 vol %
Flash point	43 °C
Auto-ignition temperature	335 °C at 1.013 - 1.017 hPa - DIN 51794
Decomposition temperature	Not available
pH	5 - 7 at 25 g/l at 20°C
Viscosity, kinematic	5.32 mm ² /s at 20°C - (ECHA)
Solubility (Water)	Miscible
Partition coefficient n-octanol/water (Log Kow)	Not available
Partition coefficient n-octanol/water (Log Pow)	1.28
Vapour pressure	3 hPa at 20 °C
Vapour pressure at 50 °C	Not available
Density	0.81 g/cm ³ at 20°C
Relative density	0.81 - 0.812 at 20°C
Relative vapour density at 20 °C	3.04
Relative gas density	9
Particle characteristics	Not applicable

10. Stability and reactivity

Reactive Hazard	None known, based on information available.
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials	Strong oxidizing agents, Metals, Alkali metals, Halogens, Acids, Acid anhydrides, Acid chlorides, Isocyanates.
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂).
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.



11. Toxicological information

Acute Toxicity

Product Information - Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Isoamyl alcohol	LD50 = 5770 mg/kg (Rat)	LD50 = 3250 mg/kg (Rabbit)	LC50 > 2000 ppm (Rat) 8 h

Toxicologically Synergistic Products	No information available
Delayed and immediate effects as well as chronic effects from short and long-term exposure	
Irritation	Irritating to eyes and respiratory system
Sensitization	No information available
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA
Isoamyl alcohol	123-51-3	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects	No information available
Reproductive Effects	No information available.
Developmental Effects	No information available.
Teratogenicity	No information available. Made by India
STOT - single exposure	Respiratory system
STOT - repeated exposure	one known
Aspiration hazard	No information available
Symptoms / effects, both acute and delayed	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Endocrine Disruptor Information	No information available.
Other Adverse Effects	Tumorigenic effects have been reported in experimental animals.

12. Ecological information

Ecotoxicity

This product contains the following substance(s) which are hazardous for the environment.



Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Isoamyl alcohol	EC50: = 493 mg/L, 72h (Desmodesmus subspicatus) EC50: = 181 mg/L, 96h (Desmodesmus subspicatus)	LC50 96 h 700 mg/L (rainbow trout)	EC50 = 2500 mg/L 17 h	EC50: = 260 mg/L, 48h (Daphnia magna)

Persistence and Degradability	Soluble in water Persistence is unlikely based on information available.
Bioaccumulation/ Accumulation	No information available.
Mobility	Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Isoamyl alcohol	Isoamyl alcohol

13. Disposal considerations

Waste treatment methods:

Waste from Residues / Unused Products	Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
Contaminated Packaging	Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.
European Waste Catalogue (EWC)	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used. Do not dispose of waste into sewer. Can be incinerated, when in compliance with local regulations.

14. Transport information

	DOT	TDG	IATA	IMDG/IMO
UN number	UN1105	UN1105	UN1105	UN1105
UN proper shipping name	PENTANOLS	PENTANOLS	PENTANOLS	PENTANOLS
Hazard Class	3	3	3	3
Packing Group	III	III	III	III



15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture	There is no additional information
Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance.

16. Any other relevant information

History

Product name	
Product code	
Date of printing	
Date of issue/Date of revision	
Date of previous issue	
Version	
Prepared by	

17. Change Details

