

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Reference number: 1375F Issue date: 02-06-2023 Revision date: 02-06-2023 Supersedes version of: 25-04-2016 Version: 1.0

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

1.1. Product identifier Product form Substance Trade name n-AMYL ALCOHOL AR **IUPAC** name Pentan-1-ol EC Index-No. 603-200-00-1 EC-No. 200-752-1 · CAS-No. : 71-41-0 1375F Product code : Aliphatic alcohol Type of product C5H12O Formula : Chemical structure OH, H₃C Synonyms : 1-Pentanol, n-Pentyl alcohol 1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1. Relevant identified uses Industrial/Professional use spec : Industrial For professional use only Use of the substance/mixture : Laboratory chemicals Solvents Manufacture of substances 1.2.2. Uses advised against No additional information available 1.3. Details of the supplier of the safety data sheet LOBA CHEMIE PVT.LTD. 107 Wode House Road, Jehangir Villa, Colaba 400005 Mumbai INDIA T +91 22 6663 6663 - F +91 22 6663 6699 info@lobachemie.com - www.lobachemie.com 1.4. Emergency telephone number : + 91 22 6663 6663 (9:00am - 6:00 pm) Emergency number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Acute toxicity (inhal.), Category 4	H332
Skin corrosion/irritation, Category 2	H315
Specific target organ toxicity – Single exposure, Category 3, Respiratory	H335
tract irritation	
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Harmful if inhaled. May cause respiratory irritation. Causes skin irritation.

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2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms (CLP) GHS02 GHS07 Signal word (CLP) : Warning Hazard statements (CLP) : H226 - Flammable liquid and vapour. H315 - Causes skin irritation. H332 - Harmful if inhaled. H335 - May cause respiratory irritation. Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P280 - Wear protective clothing, eye protection, face protection, protective gloves. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients	
3.1. Substances	
Substance type	: Mono-constituent
Name	: n-AMYL ALCOHOL
CAS-No.	: 71-41-0
EC-No.	: 200-752-1
EC Index-No.	: 603-200-00-1

3.2. Mixtures

Not applicable

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Wash with plenty of water/ Wash contaminated clothing before reuse. Get medical advice/attention. Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and e	ffects, both acute and delayed
Symptoms/effects after inhalation Symptoms/effects after skin contact	May cause respiratory irritation.Causes skin irritation. Irritation.
4.3. Indication of any immediate med	ical attention and special treatment needed
Treat symptomatically.	

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SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media Unsuitable extinguishing media	Carbon dioxide. Dry powder. Foam. Water spray.Do not use a heavy water stream.	
5.2. Special hazards arising from the substance or mixture		
Fire hazard Explosion hazard Hazardous decomposition products in case of fire	 Flammable liquid and vapour. May form flammable/explosive vapour-air mixture. Toxic fumes may be released. 	
5.3. Advice for firefighters		
Protection during firefighting	 Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. 	

SECTION 6: Accidental release measures			
6.1. Personal precautions, protective equipme	ent and emergency procedures		
General measures :	Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.		
6.1.1. For non-emergency personnel			
Emergency procedures :	Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.		
6.1.2. For emergency responders			
Protective equipment :	Do not attempt to take action without suitable protective equipment. Use personal protective equipment as required. For further information refer to section 8: "Exposure controls/personal protection".		
Emergency procedures :	Ventilate area.		
6.2. Environmental precautions			
Avoid release to the environment.			
6.3. Methods and material for containment and cleaning up			
Methods for cleaning up : Other information :	Take up liquid spill into absorbent material. Collect spillage. On land, sweep or shovel into suitable containers. Notify authorities if product enters sewers or public waters. Dispose of materials or solid residues at an authorized site.		
6.4. Reference to other sections			

For further information refer to section 13.

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Additional hazards when processed Precautions for safe handling	 Handle empty containers with care because residual vapours are flammable. Avoid contact with skin and eyes. Take precautionary measures against static discharge. Use only non-sparking tools. Keep away from sources of ignition - No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.

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Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Always wash hands after handling the product.
7.2. Conditions for safe storage, including a	ny incompatibilities
Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.
Storage conditions	: Keep container tightly closed. Keep in fireproof place. Store in a well-ventilated place. Keep cool. Store locked up.
Incompatible materials	: Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

n-AMYL ALCOHOL AR (71-41-0)	
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	73 mg/m³
AGW (OEL TWA) [2]	20 ppm
Peak exposure limitation factor	2(I)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



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8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses

8.2.2.2. Skin protection

Hand protection: Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection: Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Molecular mass	: 88.15 g/mol
Colour	: Colourless.
Odour	: pleasant.
Odour threshold	: 0.1 ppm
рН	: 7 (22 g/L Solution at 20°C)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: -78 °C
Boiling point	: 137 – 139 °C
Flash point	: 49 °C
Critical temperature	: 313 °C
Auto-ignition temperature	: 300 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable
	Flammable liquid and vapour,Not applicable
Vapour pressure	: 2.04 hPa at 20°C - OECD Test Guideline 104
Relative vapour density at 20 °C	: 3
Relative density	: 0.814 – 0.815 at 20°C
Density	: 0.8146 g/cm ³
Relative gas density	: 3.04
Solubility	: Water: 22.8 g/l at 25 °C (Miscible)
Partition coefficient n-octanol/water (Log Pow)	: 1.51
Viscosity, kinematic	: 4.224 mm²/s
Viscosity, dynamic	: 3.441 mPa.s at 24.9°C
Explosive properties	: No data available
Oxidising properties	: No data available
Lower explosive limit (LEL)	: 1.6 vol %
Upper explosive limit (UEL)	: 8 vol %
9.2. Other information	

9.2. Other information

Refractive index

: 1.407 – 1.411 (20°C, 589 nm)

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SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Open flame. Heat. Sparks. Avoid contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

U	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Harmful if inhaled.
Skin corrosion/irritation	: Causes skin irritation.
	pH: 7 (22 g/L Solution at 20°C)
Serious eye damage/irritation	: Not classified
	pH: 7 (22 g/L Solution at 20°C)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
n-AMYL ALCOHOL AR (71-41-0)	
Viscosity, kinematic	4.224 mm²/s

SECTION 12: Ecological information

12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short–term (acute)	: Not classified
Hazardous to the aquatic environment, long–term (chronic)	: Not classified

12.2. Persistence and degradability

No additional information available

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12.3. Bioaccumulative potential	
n-AMYL ALCOHOL AR (71-41-0)	
Partition coefficient n-octanol/water (Log Pow)	1.51
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessment	
No additional information available	
12.6. Other adverse effects	
No additional information available	
SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Waste treatment methods : Product/Packaging disposal recommendations :	Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose of contents/container to hazardous or special waste collection point, in accordance

Additional information

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Handle empty containers with care because residual vapours are flammable. Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1 UN number	
UN-No. (ADR) UN-No. (IMDG) UN-No. (IATA) UN-No. (ADN) UN-No. (RID)	: UN 1105 : UN 1105 : UN 1105 : UN 1105 : UN 1105
14.2. UN proper shipping name	
Proper Shipping Name (ADR) Proper Shipping Name (IMDG) Proper Shipping Name (IATA) Proper Shipping Name (ADN) Proper Shipping Name (RID) Transport document description (ADR) Transport document description (IMDG) Transport document description (IATA) Transport document description (ADN) Transport document description (RID)	 PENTANOLS PENTANOLS Pentanols PENTANOLS PENTANOLS UN 1105 PENTANOLS, 3, III, (D/E) UN 1105 PENTANOLS, 3, III
14.3. Transport hazard class(es)	
ADR Transport hazard class(es) (ADR)	: 3



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IMDG Transport hazard class(es) (IMDG) Danger labels (IMDG)	
IATA Transport hazard class(es) (IATA) Danger labels (IATA)	
ADN Transport hazard class(es) (ADN) Danger labels (ADN)	
RID Transport hazard class(es) (RID) Danger labels (RID)	
14.4. Packing group	
Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID)	: III : III : III : III : III
14.5. Environmental hazards	
Dangerous for the environment Marine pollutant Other information	NoNoNo supplementary information available
14.6. Special precautions for user	
Overland transport Classification code (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Vehicle for tank carriage Transport category (ADR) Special provisions for carriage - Packages (ADR)	 F1 5I E1 P001, IBC03, LP01, R001 MP19 T2 TP1 LGBF FL 3 V12

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Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	30
	1105
Tunnel restriction code (ADR)	: D/E
EAC code	•3Y
Transport by sea	
Special provisions (IMDG)	: 223
Limited quantities (IMDG)	: 5L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Colourless liquids with a strong odour. Immiscible with water. Explosive limits: 1.2% to
	10.5%
MFAG-No	: 129
Air transport	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provisions (IATA)	: A3
ERG code (IATA)	: 3L
Inland waterway transport	
Classification code (ADN)	: F1
Limited quantities (ADN)	: 5L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	
Equipment required (ADN)	: PP, EX, A : VE01
Ventilation (ADN) Number of blue cones/lights (ADN)	: 0
Number of blue cories/lights (ADN)	. 0
Rail transport	
Classification code (RID)	: F1
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T2
Portable tank and bulk container special provisions	: TP1
(RID)	
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
	: CE4
Colis express (express parcels) (RID)	. 624
Mixed packing provisions (RID) Portable tank and bulk container instructions (RID) Portable tank and bulk container special provisions (RID) Tank codes for RID tanks (RID) Transport category (RID) Special provisions for carriage – Packages (RID)	: MP19 : T2 : TP1 : LGBF : 3 : W12

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

No REACH Annex XVII restrictions

REACH Annex XIV (Authorisation List)

n-AMYL ALCOHOL AR is not on the REACH Annex XIV List

REACH Candidate List (SVHC)

n-AMYL ALCOHOL AR is not on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

n-AMYL ALCOHOL AR is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

n-AMYL ALCOHOL AR is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

n-AMYL ALCOHOL is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations

Germany

Water hazard class (WGK) Hazardous Incident Ordinance (12. BImSchV)	 WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 18). Is not subject of the Hazardous Incident Ordinance (12. BImSchV)
Netherlands	
SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: The substance is not listed
SZW-lijst van reprotoxische stoffen –	: The substance is not listed
Vruchtbaarheid	
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: The substance is not listed
Denmark	
Class for fire hazard	: Class II-1
Store unit	: 5 liter
Classification remarks	: R10 <h226;h315;h332;h335>; Emergency management guidelines for the storage of flammable liquids must be followed</h226;h315;h332;h335>
Danish National Regulations	: Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
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Abbreviations and acr	ronyms:
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
ΙΑΤΑ	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
РВТ	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.

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Full text of H- and EUH-statements:	
H315	Causes skin irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.