


# SAFETY DATA SHEET

## 1-PENTANOL

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

<b>1.1 Product identifier:</b>	
<b>CAS Number:</b>	71-41-0
<b>EC number:</b>	200-752-1
<b>1.2 SYNONYMS:</b>	<ul style="list-style-type: none"> <li>• Pentyl alcohol</li> <li>• N-pentanol</li> <li>• 1-Hydroxypropyl methane</li> <li>• Pentane-1-ol</li> <li>• C<sub>5</sub>H<sub>11</sub>OH</li> </ul>

### SECTION 2: Hazards identification:

<b>2.1 Classification of the substance or mixture:</b>	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
<b>2.2 Label elements:</b>	Labelling according to Regulation (EC) No 1272/2008 Flammable liquids (Category 3) Acute toxicity, Inhalation (Category 4) Skin irritation (Category 2) Serious eye damage (Category 1) Specific target organ toxicity - single exposure, respiratory system (Category 3)
<b>Hazard Pictograms:</b>	
<b>Signal Word:</b>	Danger
<b>Hazard statements:</b>	<b>H226:</b> Flammable liquid and vapor. <b>H315:</b> Causes skin irritation. <b>H318:</b> Causes serious eye damage. <b>H332:</b> Harmful if inhaled. <b>H335:</b> May cause respiratory irritation

<b>Precautionary Statements:</b>	<p><b>P210:</b> Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p><b>P233:</b> Keep container tightly closed.</p> <p><b>P280:</b> Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p><b>P303 + P361 + P353:</b> IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.</p> <p><b>P304 + P340 + P312:</b> IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.</p> <p><b>P305 + P351 + P338:</b> IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p><b>P405:</b> Store locked up.</p> <p><b>P501:</b> Dispose of contents/ container to an approved waste disposal plant.</p>
<b>2.3 Other hazards:</b>	
<b>Inhalation:</b>	may cause respiratory irritation, dizziness, headache, and central nervous system depression.
<b>Ingestion:</b>	can cause nausea, vomiting, abdominal pain, and central nervous system depression.
<b>Skin Contact:</b>	may cause irritation, redness, and drying of the skin.
<b>Eye contact:</b>	can cause irritation, redness, and watering of the eyes.
<b>Chronic Exposure:</b>	may lead to liver and kidney damage, as well as central nervous system effects such as headaches, dizziness, and fatigue.
<b>Aggravation of pre-existing conditions:</b>	Aggravation of pre-existing conditions such as respiratory

	disorders, liver or kidney disease, and central nervous system disorders may occur with exposure to 1-pentanol.
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### SECTION 3: Composition/information on ingredients

<b>3.1 Chemical characterisation:</b>	Substances
<b>CAS No:</b>	Description: 71-41-0 1-PENTANOL
<b>Identification number(s):</b>	EC number: 200-752-1

### SECTION 4: First aid measures

<b>4.1 Description of first aid measures</b>	
<b>General information:</b>	
<b>After inhalation:</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>After skin contact:</b>	Remove contaminated clothing immediately. Wash with plenty of water. Consult a physician.
<b>After eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.
<b>After swallowing:</b>	Rinse mouth with water. Immediately after ingestion Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
<b>4.2 Most important symptoms and effects, both acute and delayed:</b>	The most important symptoms include respiratory irritation, dizziness, headache, nausea, and central nervous system depression, with potential delayed effects on

	the liver and kidneys with prolonged exposure.
<b>4.3 Indication of any immediate medical attention and special treatment needed:</b>	Treat symptomatically.

## SECTION 5: Firefighting measures

<b>5.1 Extinguishing media:</b>	Carbon dioxide foam dry powder
<b>5.2 Special hazards arising from the substance or mixture:</b>	Carbon oxides.
<b>5.3 Advice for firefighters:</b>	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
<b>5.4 further information:</b>	no data available

## SECTION 6: Accidental release measures

<b>6.1 Personal precautions, protective equipment and emergency procedures:</b>	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
<b>6.2 Environmental precautions:</b>	Do not enter this chemical into drains.
<b>6.3 Methods and material for containment and cleaning up:</b>	Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container.

	Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling
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## SECTION 7: Handling and storage

<b>7.1 Precautions for safe handling:</b>	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
<b>7.2 Conditions for safe storage, including any incompatibilities:</b>	Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area. Keep away from moisture.
<b>Requirements to be met by storerooms and receptacles:</b>	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
<b>7.3 Specific end uses:</b>	no data available

## SECTION 8: Exposure controls/personal protection

<b>8.1 Control parameters</b>	
<b>Additional information about design of technical facilities:</b>	A system of local and general exhaust is recommended.
<b>8.2 Exposure controls</b>	

<b>Appropriate engineering controls</b>	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<b>Personal protective equipment:</b>	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
<b>General protective and hygienic measures:</b>	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	<b>Respiratory protection:</b> Required.
<b>Protection of hands:</b>	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.
	<b>Eye protection:</b> Required
<b>Protection of Body:</b>	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

## SECTION 9: Physical and chemical properties

<b>9.1 Information on basic physical and chemical properties</b>	
<b>General Information</b>	
<b>Appearance: Form:</b>	Liquid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Pleasant, mild alcohol like odor
<b>pH-value:</b>	7
<b>Melting point/Melting range:</b>	-79°C
<b>Boiling point/Boiling range:</b>	137.8°C
<b>Flammability (solid, gaseous):</b>	Flammable
<b>Ignition temperature:</b>	365°C
<b>Decomposition temperature:</b>	Not determined

<b>Self-igniting:</b>	None
<b>Flash point:</b>	45°C
<b>Danger of explosion:</b>	None
<b>Explosion limits: Lower:</b>	1.4%
<b>Explosion limits: Upper:</b>	7.3%
<b>Vapour pressure:</b>	1.3 mmHg at 20 °C
<b>Density at 20 °C:</b>	0.810 g/cm <sup>3</sup>
<b>Relative density:</b>	0.81
<b>Vapour density:</b>	3.5
<b>Evaporation rate:</b>	No data available
<b>Solubility in / Miscibility with- water at 20 °C:</b>	Slightly Soluble
<b>Partition coefficient:(n- octanol/water)</b>	2.1
<b>Viscosity:</b>	3.2 mPa.s at 20°C

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	Can form explosive mixtures on warming
<b>10.2 Chemical stability</b>	This chemical is stable under storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	Can undergo intense flammable reactions upon heating and can form explosion vapours.
<b>10.4 Conditions to avoid</b>	High temperatures, heat.
<b>10.5 Incompatible materials</b>	Rubber, various plastics.
<b>10.6 Hazardous decomposition products</b>	Carbon oxides.

## SECTION 11: Toxicological information

<b>11.1 Information on toxicological effects</b>	
<b>Acute Toxicity:</b>	<b>LD50</b> (Oral, Rat): 3.465 mg/kg <b>LD50</b> (Dermal, Rabbit): 2.292 mg/kg <b>LC50</b> (Inhalation Rat): 11.1 mg/l (4 hr)

<b>Skin corrosion/Irritation:</b>	Can cause skin irritation
<b>Serious eye damage/irritation:</b>	Causes serious eye damage
<b>Respiratory damage/irritation:</b>	No data available
<b>Ingestion:</b>	No data available
<b>Germ cell mutagenicity:</b>	No data available
<b>Carcinogenicity:</b>	No data available
<b>Reproductive toxicity:</b>	No data available
<b>Specific target organ toxicity - single exposure:</b>	Can cause respiratory irritation.
<b>Specific target organ toxicity - repeated exposure:</b>	No data available
<b>Aspiration hazard:</b>	No data available
<b>Signs and Symptoms of Exposure:</b>	Refer section 2.3
<b>11.2 Additional toxicological information</b>	
<b>Biodegradability:</b>	Readily Biodegradable

## SECTION 12: Ecological information

<b>12.1 Toxicity Aquatic toxicity:</b>	LC50(fish): 530 mg/l (96hr) EC50(daphnia): 341.2 mg/l (48 hr) ErC50(algae): no data available
<b>12.2 Persistence and degradability:</b>	Readily Biodegradable
<b>12.3 Bioaccumulative potential:</b>	low bioaccumulative
<b>12.4 Mobility in soil:</b>	Moderate mobility
<b>12.5 Other adverse effects:</b>	No data available

## SECTION 13: Disposal considerations

<b>13.1 Waste treatment methods</b>	
<b>Uncleaned packaging Recommendation:</b>	dispose of in accordance with local hazardous waste regulations
<b>Recommended cleansing agents:</b>	Water and soap, detergents, absorbent materials.



## SECTION 14: Transport information

<b>14.1 UN-Number · ADR, ADN, IMDG, IATA:</b>	1105
<b>14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:</b>	PENTANOLS
<b>14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :</b>	3
<b>14.4 Packing group · ADR, IMDG, IATA:</b>	3
<b>14.5 Environmental hazards:</b>	None
<b>14.6 Special precautions for user:</b>	Handle responsibly.

## SECTION 15: Regulatory information

<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU</b>	Directive 2012/18/EU, under that this substance is classified in listed substances as flammable substances
<b>Named dangerous substances:</b>	This substance is not listed in the annex 1 to the directive.
<b>15.2 Chemical safety assessment:</b>	Chemical assessment has not been carried out.

## SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and limitations of our knowledge, this document is only for reference. Users should make their independent judgment suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.