



SAFETY DATA SHEET

FURFURYL ALCOHOL

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

1.1 Product identifier:	
CAS Number:	98-00-0
EC number:	202-626-1
1.2 SYNONYMS:	<ul style="list-style-type: none"> Furan-2-yl methanol 2-Furyl methanol Furfuryl alcohol

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	<p>Labelling according to Regulation (EC) No 1272/2008</p> <p>Acute toxicity, oral (Category 4)</p> <p>Acute toxicity, inhalation (Category 2)</p> <p>Acute toxicity, Dermal (Category 4)</p> <p>Eye irritation, (Category 2)</p> <p>Carcinogenicity, (Category 2)</p> <p>Specific target organ toxicity -single exposure, Respiratory system (Category 3)</p> <p>Specific target organ toxicity - repeated exposure, Nose (Category 2)</p>
Hazard Pictograms:	 
Signal Word:	Danger
Hazard statements:	H302 + H312: Harmful if swallowed or in contact with skin.

	<p>H319: Causes serious eye irritation.</p> <p>H330: Fatal if inhaled.</p> <p>H335: May cause respiratory irritation.</p> <p>H351: Suspected of causing cancer.</p> <p>H373: May cause damage to organs (Nose) through prolonged or repeated exposure if inhaled.</p>
Precautionary Statements:	<p>P202: Do not handle until all safety precautions have been read and understood.</p> <p>P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301 + P312: IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P302 + P352 + P312: IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P304 + P340 + P310: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.</p> <p>P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P405: Store locked up.</p> <p>P501: Dispose of contents/ container to an approved waste disposal plant.</p>
2.3 Other hazards:	
Inhalation:	can cause respiratory irritation, dizziness, headaches, and may lead to central nervous system effects with prolonged exposure.
Ingestion:	can cause nausea, vomiting, abdominal pain, and may lead to

	more severe gastrointestinal distress or toxicity if consumed in large quantities.
Skin Contact:	can cause irritation, redness, and dryness, and prolonged exposure may lead to dermatitis or other skin reactions.
Eye contact:	can cause irritation, redness, tearing, and a burning sensation, potentially leading to more serious damage with prolonged exposure.
Chronic Exposure:	may lead to respiratory issues, liver or kidney damage, and nervous system effects, including headaches and dizziness, as well as potential skin sensitization or dermatitis.
Aggravation of pre-existing conditions:	Aggravation of pre-existing conditions from exposure to furfuryl alcohol may include worsening of respiratory disorders (such as asthma), skin conditions (such as eczema or dermatitis), and liver or kidney problems.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 98-00-0 FURFURYL ALCOHOL
Identification number(s):	EC number: 202-626-1

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

After skin contact:	Remove contaminated clothing immediately .Wash with plenty of water. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion Risk of aspiration! Keep airways free. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	The most important symptoms and effects include acute respiratory irritation, headache, dizziness, nausea, and skin or eye irritation, with potential delayed effects such as liver or kidney damage and nervous system issues with prolonged exposure.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	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.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	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.
7.2 Conditions for safe storage, including any incompatibilities:	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.
Requirements to be met by storerooms and receptacles:	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.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	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.
	Eye protection: Required

Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.
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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Liquid
Colour:	Colourless to yelloow
Odour:	Sweet, nutty odor
pH-value:	No data available
Melting point/Melting range:	-27°C
Boiling point/Boiling range:	172°C
Flammability (solid, gaseous):	Flammable
Ignition temperature:	450°C
Decomposition temperature:	Not determined
Self-igniting:	None
Flash point:	60°C
Danger of explosion:	None
Explosion limits: Lower:	2.3%
Explosion limits: Upper:	12.5%
Vapour pressure:	0.6mmHg at 25°C
Density at 20 °C:	1.11 g/cm ³
Relative density:	1.11
Vapour density:	4.2
Evaporation rate:	No data available
Solubility in / Miscibility with- -water at 20 °C:	Soluble
Partition coefficient:(n- octanol/water)	0.42
Viscosity:	3.5 cP at 25°C

SECTION 10: Stability and reactivity

10.1 Reactivity	Stable under room temperatures
10.2 Chemical stability	This chemical is stable under storage conditions.

10.3 Possibility of hazardous reactions	Polymerization reaction may occur if contact with strong acids bases or oxidizing agents.
10.4 Conditions to avoid	High temperatures, open flames, direct sunlight.
10.5 Incompatible materials	Strong oxidizing agents, strong acids and bases, polymerization initiators.
10.6 Hazardous decomposition products	Carbon monoxides, carbon dioxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat): 177 mg/kg LD50 (Dermal, Rabbit): no data available LC50 (Inhalation Rat): 1.17 mg/l (4hr)
Skin corrosion/Irritation:	Can cause skin irritation
Serious eye damage/irritation:	Can cause eye irritation
Respiratory damage/irritation:	Can cause respiratory irritation
Ingestion:	Can cause gastrointestinal irritation
Germ cell mutagenicity:	No data available
Carcinogenicity:	Suspected of causing cancer
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	May cause respiratory irritation
Specific target organ toxicity - repeated exposure:	Can cause serious organ damage (nose)
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Readily Biodegradable

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50(fish): no data available EC50(daphnia): no data available ErC50(algae): no data available
12.2 Persistence and degradability:	Readily Biodegradable
12.3 Bioaccumulative potential:	Low bioaccumulative
12.4 Mobility in soil:	Moderate mobility
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Water, mild soap or detergents,

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	2874
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	FURFURYL ALCOHOL
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	6.1
14.4 Packing group · ADR, IMDG, IATA:	3
14.5 Environmental hazards:	None
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

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