

Material Safety Data Sheet



FURFURAL FOR SYNTHESIS

VERSION : 02
DATE OF ISSUE : 26-08-2019
SUPERSEDES : 01

Product Code : 14583

Page 1 of 10

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : FURFURAL FOR SYNTHESIS

Product code : 14583

Identification of the product : FURFURAL

CAS No :98-01-1

Chemical formula : C₅H₄O₂

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.

Email : info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C.,OPP.Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503.

1.4. Emergency telephone number

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm).

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : Carc. Cat. 3; R40

T; R23/25

Xn; R21

Xi; R36/37/38

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Carcinogenicity - Category 2 - Warning (CLP : Carc. 2) H351

Specific Target Organ Toxicity - Single exposure - Respiratory tract irritation -
Category 3 - Warning (CLP : STOT SE 3) H335

Acute toxicity, Inhalation - Category 3 - Danger (CLP : Acute Tox. 3) H331

Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319

Acute toxicity, Oral - Category 3 - Danger (CLP : Acute Tox. 3) H301

Acute toxicity, dermal - Category 4 - Warning (CLP : Acute Tox. 4) H312

Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s) : T : Toxic

MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email : info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C.,OPP.Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503

Material Safety Data Sheet



FURFURAL FOR SYNTHESIS

VERSION : 02
DATE OF ISSUE : 26-08-2019
SUPERSEDES : 01

Product Code : 14583

Page 2 of 10



R Phrase(s) : R21 : Harmful in contact with skin.

R23/25 : Toxic by inhalation and if swallowed.

R36/37/38 : Irritating to eyes, respiratory system and skin.

R40 : Limited evidence of a carcinogenic effect.

S Phrase(s) : S1 : Keep locked up.

S2 : Keep out of the reach of children.

S21 : . When using do not smoke.

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37 : Wear suitable protective clothing and gloves.

S40: To clean the floor and all objects contaminated by this material use ...(to be specified by the manufacturer).

S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms



Signal words : Danger

Hazard statements : H301 : Toxic if swallowed.

H331 : Toxic if inhaled.

H351 : Suspected of causing cancer.

H312 : Harmful in contact with skin.

H319 : Causes serious eye irritation.

H315 : Causes skin irritation.

H335 : May cause respiratory irritation.

Precautionary statements

• **General :** P102: Keep out of reach of children.

P103: Read label before use.

P101: If medical advice is needed, have product container or label at hand.

P201: Obtain special instructions before use.

• **Prevention :** P280: Wear protective gloves, protective clothing, eye protection, face protection.

P271: Use only outdoors or in a well-ventilated area.

P261: Avoid breathing dust, fume, gas, mist, vapours, spray.

MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email : info@molychem.net

**Works: Plot No. B/9, Badlapur M.I.D.C., OPP.Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503**

Material Safety Data Sheet



FURFURAL FOR SYNTHESIS

VERSION : 02
DATE OF ISSUE : 26-08-2019
SUPERSEDES : 01

Product Code : 14583

Page 3 of 10

P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

• **Response** : P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.

P302+P352: IF ON SKIN : Wash with plenty of soap and water.

P308+P313: If exposed or concerned : get medical advice.

P332+P313: If skin irritation occurs : Get medical advice.

P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

P363: Wash contaminated clothing before reuse.

• **Storage** : P403+P233: Store in well-ventilated place. Keep container tightly closed.

P405: Store locked up.

• **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

Substance / Preparation : 2-furaldehyde

CAS No :98-01-1

Substance.

Substance name

Contents

CAS No

2-furaldehyde :

100 %

98-01-1

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures

4.1. Description of first aid measures

Inhalation : Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Remove to fresh air and keep at rest in a position comfortable for breathing.

Skin contact : Specific treatment (see on this label). Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. If skin irritation occurs : Get medical advice.

Eye contact : Get medical advice. If eye irritation persists : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email : info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C., OPP.Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503

Material Safety Data Sheet



FURFURAL FOR SYNTHESIS

VERSION : 02
DATE OF ISSUE : 26-08-2019
SUPERSEDES : 01

Product Code : 14583

Page 4 of 10

Ingestion : Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Do NOT induce vomiting. Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms relating to use : Danger of serious damage to health by prolonged exposure through inhalation. Suspected of causing cancer.

Swallowing a small quantity of this material will result in serious health hazard. Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.

5.3. Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.

Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection. Ventilate area.

For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Clean up methods : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

6.4. Reference to other sections

MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email : info@molychem.net

**Works: Plot No. B/9, Badlapur M.I.D.C., OPP.Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503**

Material Safety Data Sheet



FURFURAL FOR SYNTHESIS

VERSION : 02
DATE OF ISSUE : 26-08-2019
SUPERSEDES : 01

Product Code : 14583

Page 5 of 10

See section 8. Exposure controls/personal protection

7. Handling and storage

7.1. Precautions for safe handling

Handling : Wash thoroughly after handling. Avoid breathing dust, fume, gas, mist, vapours, spray. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Technical protective measures : Provide good ventilation in process area to prevent formation of vapour.

Special precautions : Avoid breathing dust, fume, gas, mist, vapours, spray.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep only in the original container in a cool, well ventilated place. Keep container tightly closed.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Specific end use(s) : None.

8. Exposure controls/personal protection

8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.

- **Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment.
- **Hand protection** : Wear protective gloves.
- **Skin protection** : Wear suitable protective clothing.
- **Eye protection** : Chemical goggles or safety glasses.
- **Others** : When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state at 20 °C : Liquid.

Odour threshold : No data available.

pH value : No data available.

Melting point [°C] : -36 °C

Decomposition point [°C] : N/A

Critical temperature [°C] : N/A

Auto-ignition temperature [°C] : 3160C

MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email : info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C., OPP.Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503

Material Safety Data Sheet



FURFURAL FOR SYNTHESIS

VERSION : 02
DATE OF ISSUE : 26-08-2019
SUPERSEDES : 01

Product Code : 14583

Page 6 of 10

Flammability (solid, gas) : N/A
Flash point [°C] : 60 °C
Boiling point [°C] : 162 °C
Initial boiling point [°C] : N/A
Final boiling point [°C] : N/A
Evaporation rate : N/A
Vapour pressure [20°C] : 2.3 hPa at 20 °C
Vapour pressure mm/Hg : N/A
Vapour density : 3,32
Density [g/cm³] : 1,16
Relative density, gas (air=1) : N/A
Relative density, liquid (water=1) : N/A
Solubility in water [% weight] : Soluble
Solubility in water : N/A
Log Pow octanol / water at 20°C : No data available.
Solubility : N/A
Viscosity at 40°C [mm²/s] : N/A

9.2. Other information

Explosive properties : N/A
Explosion limits - upper [%] : 19,30%
Explosion limits - lower [%] : 2,10%
Oxidising properties : No data available.

10. Stability and reactivity

10.1. Reactivity

Reactivity : Not established.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

11. Toxicological information

11.1. Information on toxicological effects

Material Safety Data Sheet



FURFURAL FOR SYNTHESIS

VERSION : 02
DATE OF ISSUE : 26-08-2019
SUPERSEDES : 01

Product Code : 14583

Page 7 of 10

Acute toxicity

- **Inhalation** : Toxic if inhaled.
- **Dermal** : Harmful in contact with skin.
- **Ingestion** : Toxic if swallowed.

Corrosion : Based on available data, the classification criteria are not met.

Irritation : Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation.

Sensitization : Based on available data, the classification criteria are not met.

Mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Suspected of causing cancer.

Toxic for reproduction : Based on available data, the classification criteria are not met.

STOT-single exposure : Based on available data, the classification criteria are not met.

STOT-repeated exposure : Based on available data, the classification criteria are not met.

Aspiration hazard : Based on available data, the classification criteria are not met.

12. Ecological information

12.1. Toxicity

Toxicity information : Not established.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

13. Disposal considerations

13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Special precautions : Hazardous waste due to toxicity.

MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email : info@molychem.net

**Works: Plot No. B/9, Badlapur M.I.D.C., OPP.Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503**

Material Safety Data Sheet



FURFURAL FOR SYNTHESIS

VERSION : 02
DATE OF ISSUE : 26-08-2019
SUPERSEDES : 01

Product Code : 14583

Page 8 of 10

14. Transport information

14.1. Land transport (ADR-RID)

Proper shipping name : FURALDEHYDES

UN N° : 1199

H.I. nr : 63

ADR - Class : 6.1

Labelling - Transport : 6.1 : Toxic substances. 3 : Flammable liquid.

ADR - Classification code : TF1

ADR - Group : II

ADR - Packing instructions : P001

ADR - Limited Quantity : 100 ML

ADR - Tunnel code : D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only]

Proper shipping name : FURALDEHYDES

UN N° : 1199

IMO-IMDG - Class or division : 6.1 : Toxic substances. (3 : Flammable liquid.)

IMO-IMDG - Packing group : II

IMO- IMDG - Packing instructions : P001

IMO-IMDG - Limited quantities : 100 ml

IMO-IMDG - Marine pollution : No

EMS-Nr : F-E S-D

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : FURALDEHYDES

UN N° : 1199

IATA - Class or division : 6.1 : Toxic substances. (3 : Flammable liquid.)

IATA - Packing group : II

IATA - Passenger and Cargo Aircraft : ALLOWED

- Passenger and Cargo - Packing : 654

instruction

- Passenger and Cargo - Maximum : 5 L

Quantity/Packing

IATA - Cargo only : ALLOWED

- Cargo only - Packing instruction : 662

- Cargo only - Maximum Quantity/ : 60 L

Packing

IATA - Limited Quantites : 1 L

ERG-Nr : 6F

MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email : info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C., OPP.Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503

Material Safety Data Sheet



FURFURAL FOR SYNTHESIS

VERSION : 02
DATE OF ISSUE : 26-08-2019
SUPERSEDES : 01

Product Code : 14583

Page 9 of 10

15. Regulatory information

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

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.

REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.

REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment : It has not been carried out.

16. Other information

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative

Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Further information : None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008 **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

End of document

Prepared by: MOLYCHEM (INDIA)

For questions contact: MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . **Fax:** + 91 22 2203 4442.

Email : info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat Textile Co.,

MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email : info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat Textile Co.,

Kulgaon, Badlapur (E), Dist.-Thane-421 503

Material Safety Data Sheet	
FURFURAL FOR SYNTHESIS	VERSION : 02 DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01
Product Code : 14583	Page 10 of 10

Kulgaon, Badlapur (E), Dist.-Thane-421 503

(The statements contained herein are offered for informational purposes only and are based upon technical data that MOLYCHEM believes to be accurate. It is intended for use only by persons having the necessary technical skills and at their own discretion and risk. Since conditions and manner of use are outside our control, we make **NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE.**)