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**Material Safety Data Sheet**

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<b>Product Name</b>	<b>Methanol</b>
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**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identification:****Product Description:** Methanol**Cat No. :** 10931,20940, 20930, 70930, 96930, 41930, 22930, 10932, 60930, 10929, 66930, 30930,98930**Synonyms:** Methyl Alcohol**CAS-No:** 67-56-1**EC-No.:** 200-659-6**Molecular Formula:** CH<sub>3</sub>OH

**REACH Registration No:** A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

**1.2. Relevant identified uses of the substance or mixture and uses advised against:****Recommended Use:** Laboratory chemicals, not for food and drug**1.3. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**  
184-186/P, Chacharwadi Vasna,  
Sarkhej-Bavla Highway,  
Ta.: Sanand, Dist.: Ahmedabad,  
Email: [info@finarchemicals.com](mailto:info@finarchemicals.com)  
Web: [www.finarchemicals.com](http://www.finarchemicals.com)
- **E-Mail Address** [safety@finarchemicals.com](mailto:safety@finarchemicals.com); [info@finarchemicals.com](mailto:info@finarchemicals.com)

**1.4. Emergency Telephone Number:**

- For Emergency contact on: +91 - 2717 - 616 717,
- Registered office No: +91 - 79 – 40040085

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**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture:****Classification according to Regulation (EC) No 1272/2008**

Flammable liquid, Category 2, H225

Acute toxicity, Category 3, Oral, H301

Acute toxicity, Category 3, Inhalation, H331

Acute toxicity, Category 3, Dermal, H311

Specific target organ toxicity- Single Exposure, Category 1, Eyes, H370

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2. Label Elements:****Labeling according Regulation (EC) No 1272/2008****Pictogram****Signal word:     Danger**

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.

H370 Causes damage to organ (eye).

**Precautionary statement(s)**

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P240 Ground/bond container and receiving equipment.

P280 Wear protective gloves/ protective clothing.

Response

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

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

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

Storage

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P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

**Reduced labelling (≤125 ml)**

**Pictogram**



**Signal word**

**Danger**

Hazard statement(s)

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.

H370 Causes damage to organ (eye).

**Precautionary statement(s)**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P280 Wear protective gloves/ protective clothing.

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

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

**2.3. Other Hazards:**

None Known

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substances: Methanol**

CAS-No: 67-56-1

**3.2. Mixtures:**

<b>Component</b>	<b>CAS-No</b>	<b>EC-No.</b>	<b>Weight %</b>
Methanol	67-56-1	200-659-6	>95

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**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures:**

- **General advice**

First aider needs to protect himself.

- **If inhaled**

Fresh air. Immediately call in physician. If breathing stops:  
immediately apply artificial respiration, if necessary also oxygen.

- **If Contact with skin**

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

- **In case of eye contact**

Rinse immediately with plenty of water, Call in ophthalmologist. Remove contact lenses.

- **If swallowed**

Fresh air. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage).  
Call a doctor immediately (mention methanol ingestion).  
Only in exceptional cases, if no medical care is available within one hour, induce vomiting  
(only in fully conscious persons) and make victim drink ethanol again  
(approx. 0.3 ml of a 40% alcoholic beverage/kg body weight/hour). Do not attempt to neutralise.

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

Irritant effects, Drowsiness, Dizziness, narcosis, agitation, spasms, inebriation, Nausea, Vomiting,  
Headache, blindness, Impairment of vision, Coma

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

No information Available

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media:**

**Suitable Extinguishing Media-** Use water, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2. Special hazards arising from the substance or mixture:**

Combustible.

Forms explosive mixtures with air at ambient temperatures.

Vapours are heavier than air and may spread along floors.

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Pay attention to flashback.

Development of hazardous combustion gases or vapours possible in the event of fire.

**5.3. Advice for firefighters:**

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus.

Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**5.4 Further Information:**

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures:**

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact.

Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

**6.2. Environmental precautions:**

Do not let product enter drains. Risk of explosion.

**6.3. Methods and material for containment and cleaning up:**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.

**6.4. Reference to other sections:**

For disposal see Sections 13.

## **SECTION 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling**

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Observe label precautions

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against

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static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection.

Wash hands and face after working with substance.

**7.2. Conditions for safe storage, including any incompatibilities:**

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorised persons.

Recommended storage temperature see product label.

**7.3. Specific end use(s):**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters:**

IN OEL Skin designation: Can be absorbed through the skin.

Short Term Exposure Limit (STEL): 250 ppm / 310 mg/m<sup>3</sup>

Time Weighted Average (TWA): 200 ppm / 260 mg/m<sup>3</sup>

**8.2. Exposure Controls:**

- **Appropriate Engineering Controls:**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

**Personal Protective Equipment:**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

- **Eye & Face Protection-**

safety goggles

- **Hand Protection -**

Full contact: -

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Glove material:	Butyl-Rubber
Glove thickness:	0.70 mm
Break through time:	>480 min

Splash contact: -

Glove material:	Viton ( R )
Glove thickness:	0.70 mm
Break through time:	>120 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 898 Butoject® (full contact), KCL 890 Vitoject® (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

- **Other Protective equipment-**

Flame retardant antistatic protective clothing.

- **Respiratory Protection-**

Required when vapours/aerosols are generated.

Recommended Filter type: Filter AX- (EN 371)

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

- **Environmental Exposure Controls-**

Do not let product enter drains. Risk of explosion.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1. Information on basic physical and chemical properties:**

- **Appearance:** Colorless
- **Physical State:** Liquid
- **Odour:** Characteristic Pungent
- **Odour Threshold:** 10 – 20,000 ppm
- **pH:** No data available

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- **Melting Point:** -98 °C
- **Critical Temperature:** No data available
- **Vapor Pressure:** 128 hPa at 20 °C
- **Relative Vapor Density:** 1.11
- **Density:** 0.792 g/cm<sup>3</sup> at 20 °C
- **Ignition Temperature:** 420 °C
- **Minimum Ignition Energy:** 0.14 mJ
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Viscosity, dynamic:** 0.597 mPa.s at 20 °C
- **Odor Threshold:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Ionicity (in Water):** No data available
- **Lower Explosion Limit:** 5.5 % (V)
- **Upper Explosion Limit:** 44 % (V)
- **Boiling Point/Range:** 64.5 °C at 1.013 hPa
- **Flash Point:** 9.7 °C
- **Specific Gravity / Density:** 0.791
- **Water Solubility:** Complete Miscible

**9.2. Other information:**

**Molecular Formula:** CH<sub>3</sub> OH

**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity: -**

Vapours may form explosive mixture with air.

**10.2. Chemical stability:**

The product is chemically stable under standard ambient conditions (room temperature) .

**10.3. Possibility of hazardous reactions:**

Risk of explosion with:Oxidizing agents, perchloric acid, perchlorates, salts of oxyhalogenic acids, chromium(VI) oxide, halogen oxides, nitrogen oxides, nonmetallic oxides, chromosulfuric acid,



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chlorates, hydrides, zinc diethyl, halogens, powdered magnesium, hydrogen peroxide, Nitric acid, sulphuric acid, permanganic acid, sodium hypochlorite

Exothermic reaction with: acid halides, Acid anhydrides, Reducing agents, acids, Bromine, Chlorine, Chloroform, magnesium, tetrachloromethane, CYANURIC CHLORIDE

Risk of ignition or formation of inflammable gases or vapours with: Fluorine, Oxides of phosphorus, Raney-nickel

Generates dangerous gases or fumes in contact with: Alkaline earth metals, Alkali metals

**10.4. Conditions to avoid:** - Warming.

**10.5. Incompatible materials:** - Magnesium, Zinc Alloy, various plastics

**10.6. Hazardous decomposition products:-** No data available

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Oral toxicity

Acute toxicity estimate: 100.1 mg/kg

Expert judgement

LDLO human: 143 mg/kg

(RTECS)

Symptoms: Nausea, Vomiting

#### Acute Inhalation toxicity

LC50 Rat: 131.25 mg/l; 4 h ; vapour

(ECHA)

Symptoms: Irritation symptoms in the respiratory tract.

#### Acute Dermal toxicity

LD50 Rabbit: ca. 17,100 mg/kg

(External MSDS)

Acute toxicity estimate : 300.1 mg/kg

Expert judgement

#### Skin corrosion/irritation

Rabbit

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Result: No skin irritation

(ECHA)

**Serious eye damage/eye irritation**

Rabbit

Result: No Eye irritation

(ECHA)

Possible damages: Irritations of mucous membranes

**Respiratory or skin sensitization**

Sensitisation Test: Guinea pig

Result: negative

Method: OECD Test Guideline 406

**Germ cell mutagenicity**

Genotoxicity in vivo

micronucleus test

Mouse

male and female

Intraperitoneal injection

Bone marrow

Result: negative

Method: OECD Test Guideline 474

Genotoxicity in vitro

Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

In vitro mammalian cell gene mutation test

Chinese hamster lung cells

Result: negative

Method: OECD Test Guideline 476

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

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**Specific target organ toxicity - single exposure**

Causes damage to organs. Target Organs: Eyes

**Specific target organ toxicity - repeated exposure**

No data available.

**Aspiration hazard**

No data available

**11.2 Further Information**

Systemic effect:

acidosis, drop in blood pressure, agitation, spasms, inebriation, Dizziness, Drowsiness, Headache, Impairment of vision, blindness, narcosis, Coma. Symptoms may be delayed.

Damage to: Liver, Kidney, Cardiac, Irreversible damage of the optical nerve.

Other dangerous properties can not be excluded. This substance should be handled with particular care.

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity:**

Toxicity to fish

Flow-through test LC50 *Lepomis macrochirus* (Bluegill sunfish): 15,400 mg/l; 96 h

Analytical monitoring: yes

US-EPA

Toxicity to daphnia and other aquatic

static test EC50 *Daphnia magna* (Water flea): > 10,000 mg/l; 48 h

DIN 38412

Toxicity to algae

Static test EC50 *Pseudokirchneriella subcapitata* (green algae): ca. 22,000 mg/l; 96 h

OECD Test Guideline 201

Toxicity to bacteria

Static test IC50 activated sludge: > 1,000 mg/l; 3 h

Analytical monitoring: yes

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OECD Test Guideline 209

Toxicity to fish (Chronic toxicity)

NOEC *Oryzias latipes* (Orange-red killifish): 7,900 mg/l; 200 h

(External MSDS)

**12.2 Persistence and degradability:**

Biodegradability

99 %; 30 d

OECD Test Guideline 301 D

Readily biodegradable

Biochemical Oxygen Demand (BOD)

600 - 1,120 mg/g (5 d)

(IUCLID)

Chemical Oxygen Demand (COD)

1,420 mg/g

(IUCLID)

Theoretical oxygen demand (ThOD)

1,500 mg/g

(Lit.)

Ratio BOD/ThBOD

BOD5 76 %

Closed Bottle test

**12.3 Bioaccumulate potential:**

Partition Coefficient: - n-Octanol/water

Log Pow: -0.77

(experimental)

(Lit.) Bioaccumulation is not expected.

**12.4 Mobility in soil:**

No data available

**12.5 Results of PBT and vPvB assessment**

Substance(s) in the mixture does not meet the criteria for PBT or vPvB according to Regulation

(EC) No 1907/2006, Annex XIII.

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**12.6 Other adverse effects:**

- Surface tension  
22.6 mN/m at 20 °C
- Stability in water  
2.2 yr
- reaction with hydroxyl radicals (IUCLID)
- Discharge into the environment must be avoided.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Waste material must be disposed of in accordance with the national and local regulations.  
 Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself

**SECTION 14: Transport information**

	<b>Land transport (ADR/RID)</b>	<b>Air transport (IATA)</b>	<b>Sea transport (IMDG)</b>
<b>14.1 UN number</b>	UN 1230	UN 1230	UN 1230
<b>14.2 Proper shipping name</b>	Methanol	Methanol	Methanol
<b>14.3 Class</b>	3 (6.1)	3 (6.1)	3 (6.1)
<b>14.4 Packing group</b>	II	II	II
<b>14.5 Environmentally hazardous</b>	--	--	--
<b>14.6 Special precautions for user</b>	Yes Tunnel Restriction code – D/E	No	Yes Ems F-E S-D
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>			
Not Relevant			

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**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

National Legislation

Storage class 3

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organ.

**Training advice**

Provide adequate information, instruction and training for operators.

**References:** Not available**Created:** 06/03/2020**Disclaimer:**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Finar Limited be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Finar Limited has been advised of the possibility of such damages.