

SAFETY DATA SHEET



Trade Name: FUMARIC ACID

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1: Identification

Commercial Product Name: Fumaric Acid

Manufacturer: Gadiv Petrochemical Industries Ltd.

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Management

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2: Composition/Information on Ingredients

Chemical characterization: Colorless, odorless powder.

Hazardous ingredients:

Chemical name	CAS-No	EINECS-No	Concentration %	Classification
Fumaric acid	110-17-8	203-743-0	100	R36, Xi

(See full text of R-phrases in chapter 16.)

3: Hazards Identification

Human health hazard:

Irritating to eyes.

4: First Aid Measures


Symptoms Irritating to skin, eyes and respiratory tract.
In high concentrations, may cause coughing, sneezing and labored breathing.
Ingestion may cause nausea, vomiting, cramps and diarrhea.

Skin contact: Immediately remove contaminated clothing and shoes. Rinse with large amounts of water for at least 10 minutes. Refer for medical attention as necessary. Do NOT use solvents or thinners.

Eyes contact: Rinse open eyes under running water for at least 15 minutes. Refer for medical attention. Never give anything by mouth to an unconscious person.

Ingestion: Do NOT induce vomiting. If victim is conscious, give three cups of water. Refer for medical attention as necessary. Do not administer liquids to unconscious persons.

Inhalation: Using protective gear, evacuate victim from site of exposure. Have victim lie or sit

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comfortably. If he has difficulty breathing, have him sit with back straight and administer oxygen, if possible. If victim is unconscious, perform resuscitation and then immediately transfer to medical personnel.

5: Fire-Fighting Measures

Suitable extinguishing media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

Use supplier-air breathing equipment for enclosed or confined spaces or as otherwise needed.

Wear full protective cloths and self-contained breathing apparatus.

6: Accidental Release Measures

Wear full protective clothing . Evacuate personnel. Avoid generating dusty conditions. Provide ventilation. Sweep up, and then place into a suitable container for later disposal. Prevent the product from spreading into the environment

7: Handling and Storage

Keep away from incompatible materials (see section 10).

Safety phrases

Keep out of reach of children.

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

Avoid contact with skin and eyes.

Do not breathe dust.

Storage: Store in a cool, dry, well-ventilated area.

Store separately from oxidizing agents.

8: Exposure Control and Personal Protection

Threshold values: Not available

IDLH: (Immediately Dangerous to Life and Health): Not available

Personal Protective equipment: Generally, personal protection is a function of exposure. It is recommended to use working shoes, working clothes or lab coat. Working should be done in a well-ventilated area. In addition: mask and filter for organic compounds type A, gloves, safety goggles.

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Skin protection: Rubber, neoprene or vinyl gloves and protective clothing.

In case of an emergency: Full protective gear and a self contained breathing apparatus should be used, according to the severity.

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9: Physical and Chemical Properties:

General information:

Form: Solid

Color: White

Odour: Not available

Important health, safety and environmental information:

Boiling point °C: 165

Freezing point °C: 287

Molecular weight: 116.02

Density g/cm³ (20°C): 1.63

Vapor density (air=1): 4.03

Vapor pressure (mmHg)(135°C): 1.7

Solubility (in water): Slightly soluble in water.

pH: 2.6

Flash point °C: Not applicable

Auto-ignition temperature °C: 740

LEL: N/A UEL: N/A

Viscosity (20°C): N/A

10: Stability and Reactivity

Hazardous polymerization: Will not occur.

Chemical reactivity: Stable under ordinary use. Keep away from strong oxidizers and nitric acid.

Hazardous decomposition products: On fire emits toxic and irritating fumes.

11: Toxicological Information

Fumaric acid

LD₅₀ (oral rat) 9,300 mg/kg

Carcinogenicity: No data available

12: Ecological Information

Environmental hazards: No data available

Biodegradability: Readily biodegradable

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13: Disposal Considerations

Not regulated as a hazardous material

14: Transport Information

UN recommendations: Not regulated as a hazardous material

Sea transport: Not regulated as a hazardous material

Air transport: Not regulated as a hazardous material

Estimated NFPA: H: 1 F: 1 R: 0

15: Regulatory Information

Labeling in accordance with EC directives

Symbol and indicating of hazard: Xi



R-phrases:

R36: Irritating to eyes

S-phrases:

S02: Keep out of reach of children.

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

S24/25: Avoid contact with skin and eyes.

S22: Do not breathe dust.

According to local regulations.

16: Other Information

Full text of R-phrases with No. appearing in section 2:

R36: Irritating to eyes

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The information herein is based on the present state of our knowledge. It is believed to be correct but is not necessarily all inclusive and shall be used only as a guide. BAZAN Ltd, and Haz-Mat Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product. For further information, contact BAZAN Ltd or contact Haz-Mat at hazmat@hazmat.co.il.