

## MATERIAL SAFETY DATA SHEET

### FOLIC ACID

1. Information of the substance / preparation and of the company

Commercial product name    Folic Acid  
Company:                      Farmabase Pharmaceutical Raw Materials  
                                     Campiello del Trivio, 12  
                                     38068 Rovereto  
                                     Italy  
                                     Phone: 0464/421996  
                                     Fax: 0464/421985  
CAS nr.                        59-30-3

2. Chemical Characterisation & physical form

Chemical formula             $C_{19}H_{19}N_7O_6$   
Molecular weight            441.4  
Physical form                Folic Acid is a yellow or orange crystalline powder

3. Hazards Identification

Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation (lung irritant, lung sensitizer).  
The substance is toxic to lungs, mucous membranes.  
Repeated or prolonged exposure to the substance can produce target organs damage.

4. First aid measures

Eye contact: check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin contact: after contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Ingestion: do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Inhalation: allow the victim to rest in a well ventilated area. Seek immediate medical attention.

5. Fire fighting measures

Flammability of the product: may be combustible at high temperature  
Products of combustion are: carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>).  
Highly flammable in presence of open flames and sparks, of heat.

Fire fighting media and instructions:

Small fire: use dry chemical powder

Large fire: use water spray, fog or foam. Do not use water jet.

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### 6. Accidental release measures

#### Small spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

#### Large spill:

Use a shovel to put the material into a convenient waste disposal container. Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

### 7. Handling and storage

#### Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

#### Storage:

Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

### 8. Exposure controls / personal protection

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limits.

#### Personal protection:

Splash goggles, lab coat, gloves, dust respirator. Be sure to use an approved/certified respirator or equivalent. Consult a specialist before handling this product.

### 9. Physical and chemical properties

Physical state	crystalline powder
Colour	yellow or orange
pH value (1% soln/water)	4 (Acidic)
Melting point	decomposes
Solubility	very slightly soluble in cold water, hot water

### 10. Stability and reactivity

The product is stable and non-corrosive in presence of glass.

### 11. Toxicological information

Toxicity to animals: acute oral toxicity (LD50): 10000 mg/kg (Mouse)

Toxic effects on humans: hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation (lung irritant, lung sensitizer).

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### 12. Ecological information

Products of biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are more toxic.

### 13. Disposal considerations

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### 14. Transport information

The material is non hazardous according to current regulations for transportation of hazardous goods. These codes are not applicable as the material is not hazardous.

### 15. Other regulatory information

DSCL (EEC):

R36/37/38-irritating to eyes, respiratory system and skin

R42-may cause sensitization by inhalation

### 16. Other information

The information herein is believed to be correct as of the date but is provided without warranty of any kind. The recipient of our products is responsible for observing any laws & guidelines as applicable.

FARMABASE Pharmaceutical  
Raw Materials