

# Folic acid

## Safety Data Sheet

**245909**

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Version: 2.0

Date of issue: 16/07/2012 Revision date: 15/03/2017

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

#### 1.1. Product identifier

Product form : Substance  
 Substance name : Folic acid  
 IUPAC name : (2S)-2-[[4-[[[(2-Amino-4-oxo-1,4-dihydropteridin-6-yl)methyl]amino]benzoyl]amino]pentanedioic acid  
 EC-No. : 200-419-0  
 CAS-No. : 59-30-3  
 Product code : 245909  
 Formula : C<sub>19</sub>H<sub>19</sub>N<sub>7</sub>O<sub>6</sub>  
 Synonyms : Folacin, Vitamin B9, Vitamin Bc, Pteroylglutamic acid (PGA)  
 Product group : Raw material

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

##### 1.2.1. Relevant identified uses

Main use category : Pharmaceutical  
 Function or use category : Raw material

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier

Duchefa Farma BV  
 A. Hofmanweg 71  
 2031BH Haarlem - The Netherlands  
 T +31(0)23-5319093  
[farma@duchefa.nl](mailto:farma@duchefa.nl) - [www.duchefa-farma.com](http://www.duchefa-farma.com)

#### 1.4. Emergency telephone number

Emergency number : Supplier contact information:  
 +31(0)23-5319093 (M-F 09:00-17:00)  
 +31(0)6-30109355 (outside office hours)

| Country        | Organisation/Company   | Address                         | Emergency number | Comment |
|----------------|--|---------------------------------|------------------|---------|
| United Kingdom | Guy's & St Thomas' Poisons Unit<br>Medical Toxicology Unit,<br>Centre Hospitalier Universitaire de Constantine | Avonley Road<br>SE14 5ER London | 0870 243 2241    |         |

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

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**Adverse physicochemical, human health and environmental effects**

No additional information available

**2.2. Label elements****Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

No labelling applicable

**2.3. Other hazards**

No additional information available

**SECTION 3: Composition/information on ingredients****3.1. Substances**

| Name       | Product identifier                      | %        | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|------------|---|----------|---|
| Folic acid | (CAS-No.) 59-30-3<br>(EC-No.) 200-419-0 | 96 - 102 | Not classified  |

Full text of H-statements: see section 16

**3.2. Mixtures**

Not applicable

**SECTION 4: First aid measures****4.1. Description of first aid measures**

- First-aid measures general : Treat symptomatically.
- First-aid measures after inhalation : Assure fresh air breathing. Get medical advice and attention if you feel unwell.
- First-aid measures after skin contact : Wash skin with mild soap and water. Seek medical attention if ill effect or irritation develops.
- First-aid measures after eye contact : Rinse immediately with plenty of water. If eye irritation persists, take medical advice.
- First-aid measures after ingestion : Rinse mouth. Seek medical advice.

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

No additional information available

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

No additional information available

**SECTION 5: Fire-fighting measures****5.1. Extinguishing media**

- Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.
- Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : On exposure to high temperature, may decompose, releasing toxic gases. Carbon monoxide. Carbon dioxide. Nitrogen oxides.
- Explosion hazard : Large amounts: Risk of dust explosion.

### 5.3. Advice for firefighters

- Precautionary measures fire : Exercise caution when fighting any chemical fire.
- Firefighting instructions : Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Avoid raising dust. Ensure adequate air ventilation.

#### 6.1.2. For emergency responders

- Protective equipment : Wear proper protective equipment.

### 6.2. Environmental precautions

- Prevent product from entering drains.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Sweep up dry powder and dispose properly.

### 6.4. Reference to other sections

- No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry, well-ventilated area. Keep container tightly closed. Protect from sunlight.

### 7.3. Specific end use(s)

- Pharmaceutical industry.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| Folic acid (59-30-3) |                                |                       |
|----------------------|--------------------------------|-----------------------|
| EU                   | IOELV TWA (mg/m <sup>3</sup> ) | 0.1 mg/m <sup>3</sup> |

### 8.2. Exposure controls

#### Hand protection:

| Type   | Material             | Permeation        | Thickness (mm) | Standard |
|--------|----------------------|-------------------|----------------|----------|
| Gloves | Nitrile rubber (NBR) | 6 (> 480 minutes) | 0,11           | EN 374   |

**Eye protection:**

Safety glasses (to European standard EN 166 or equivalent)

**Skin and body protection:**

Wear suitable protective clothing

**Respiratory protection:**

Dust production: dust mask with filter type P1

## SECTION 9: Physical and chemical properties

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

|   |   |
|---|---|
| Physical state                                | : Solid   |
| Appearance                                    | : Crystalline powder.   |
| Molecular mass                                | : 441.4 g/mol   |
| Colour  | : Yellow. orange.   |
| Odour   | : odourless.  |
| Odour threshold                               | : No data available   |
| pH  | : 4 - 4.8   |
| pH solution                                   | : 100 g/l   |
| Relative evaporation rate<br>(butylacetate=1) | : No data available   |
| Melting point                                 | : 250 °C  |
| Freezing point                                | : No data available   |
| Boiling point                                 | : No data available   |
| Flash point                                   | : No data available   |
| Auto-ignition temperature                     | : No data available   |
| Decomposition temperature                     | : No data available   |
| Flammability (solid, gas)                     | : No data available   |
| Vapour pressure                               | : No data available   |
| Relative vapour density at 20 °C              | : No data available   |
| Relative density                              | : No data available   |
| Solubility                                    | : Insoluble in water. Soluble in : Aqueous solution of alkaline agents.<br>Water: 1.6 mg/l 25°C |
| Log Pow                                       | : -2.81   |
| Viscosity, kinematic                          | : No data available   |
| Viscosity, dynamic                            | : No data available   |
| Explosive properties                          | : No data available   |
| Oxidising properties                          | : No data available   |
| Explosive limits                              | : No data available   |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

heat. High temperature. Light (daylight).

### 10.5. Incompatible materials

Strong oxidizers. Reducing agents. Strong acids. Strong bases. metals.

### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Nitrogen oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| Folic acid (59-30-3) |              |
|----------------------|--------------|
| LD50 oral rat        | > 8000 mg/kg |

Skin corrosion/irritation : Not classified  
pH: 4 - 4.8

Serious eye damage/irritation : Not classified  
pH: 4 - 4.8

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

| Folic acid (59-30-3) |                                |
|----------------------|--------------------------------|
| LC50 fish 1          | > 100 mg/l Oncorhynchus Mykiss |
| EC50 Daphnia 1       | > 100 mg/l 48 h                |

### 12.2. Persistence and degradability

| Folic acid (59-30-3)          |                              |
|-------------------------------|------------------------------|
| Persistence and degradability | readily degradable in water. |
| Biodegradation                | 82 % 14 d                    |

### 12.3. Bioaccumulative potential

| Folic acid (59-30-3) |       |
|----------------------|-------|
| Log Pow              | -2.81 |

### 12.4. Mobility in soil

No additional information available

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**12.5. Results of PBT and vPvB assessment**

No additional information available

**12.6. Other adverse effects**

No additional information available

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Waste treatment methods : Avoid release to the environment.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

**SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR                                     | IATA                               |
|---|------------------------------------|
| <b>14.1. UN number</b>                  |                                    |
| Not applicable                          | Not applicable                     |
| <b>14.2. UN proper shipping name</b>    |                                    |
| Not applicable                          | Not applicable                     |
| <b>14.3. Transport hazard class(es)</b> |                                    |
| Not applicable                          | Not applicable                     |
| Not applicable                          | Not applicable                     |
| <b>14.4. Packing group</b>              |                                    |
| Not applicable                          | Not applicable                     |
| <b>14.5. Environmental hazards</b>      |                                    |
| Dangerous for the environment : No      | Dangerous for the environment : No |
| No supplementary information available  |                                    |

**14.6. Special precautions for user****- Overland transport**

No data available

**- Air transport**

No data available

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

No REACH Annex XVII restrictions

Folic acid is not on the REACH Candidate List

Folic acid is not on the REACH Annex XIV List

**15.1.2. National regulations**

No additional information available

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

### SECTION 16: Other information

Indication of changes:

|     |                          |          |  |
|-----|--------------------------|----------|--|
| 1.4 | Emergency telephone      | Modified | Added additional information                       |
| 2   | Classification (DSD/DPD) | Removed  | Obsolete   |
| 8.2 | Hand protection          | Modified | Specified material, thickness, et cetera of gloves |

Abbreviations and acronyms:

|       |   |
|-------|---|
| SDS   | Safety Data Sheet   |
| RID   | Regulations concerning the International Carriage of Dangerous Goods by Rail                      |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| IMDG  | International Maritime Dangerous Goods  |
| IATA  | International Air Transport Association   |
| ADR   | European Agreement concerning the International Carriage of Dangerous Goods by Road               |
| ADN   | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways   |
| CLP   | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008                       |

Data sources : Supplier. 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.

SDS EU (REACH Annex II) Version 2017

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*