

According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA

Date of creation / revision: 2019-03-08

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: Folic Acid ELISA
Article Number: DEFOLE01

Components: 0) Microtiter Plate

Substrate Solution
 Antibody Solution

3) Conjugate

4) Washing Solution (10x Concentrate)

5) Sample Diluent6) Folic Acid Standards

7) Stop Solution

Concerning safety the microtiter plate (0) is inoffensive and for this reason not part of this document. The mixtures 1 - 6, due to coincident categorization, are combined As a group and treated and dealt with below. The mixture 7 (Stop Solution) is treated in a separate safety data sheet below.

1.2. Application of the substance / the preparation

Enzyme immunoassay for the quantitative determination of folic acid in food.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Demeditec Diagnostics GmbH

Lise-Meitner-Strasse 2

24105 Kiel Germany

Tel.: +49(0)431 / 71922-0

eMail-Adress of the qualified person: info@demeditec.de

1.4. Emergency telephone number

In case of further inquiry please contact the telephone number +49(0)431 / 71922-0 (technical service) or the emergency center for intoxication in Munich (Tel.: +49(0)89 19240) or any other adequate institution.



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA

Date of creation / revision: 2019-03-08

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or Directive 1999/45/EC:

No classification applicable.

Classification according to Regulation (EC) No 1272/2008:

The mixtures are not classified according to the CLP regulation.

Information concerning particular hazards for human and environment:

The mixtures do not have to be labeled due to the calculation procedure of the "General Classification quideline for preparations of the EU" in the latest version.

Classification system:

The mixtures are classified as non hazardous according to the criteria of Directive 67/548/EEC and Directive 1999/45/EC or Regulation(EC) No 1272/2008.

2.2. Label elements

Labeling according to Regulation (EC) No 1272/2008:Void.Hazard pictograms:Void.Signal word:Void.Hazard statements:Void.

2.3. Other hazards

All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

PBT: Not applicable. vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical charcterization: Mixtures

Description: Mixtures of substances with nonhazardous additions.

Dangerous components: Void.

Additinal information: For the wording of the listed risk phrases refer to section 16.

4. FIRST AID MEASURES



4.1. Description of first aid measures

General information: First aider: Pay attention for self protection!! Remove any clothing soiled by the product.

After Inhalation: Remove to fresh air. Consult a doctor in case of complaints.

After skin contact: Immediately rinse with water. If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Rinse out mouth and drink a glass of water. Do not induce vomiting. If there is any trouble seek medical help.



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA

Date of creation / revision: 2019-03-08

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

No further relevant information available.

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

No further relevant information available.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing agents:

Use fire extinguishing methods suitable to surrounding conditions. CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

for safety reasons unsuitable extinguishing agents:

For this mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture

Ambient fire may liberate hazardous vapours.

In the event of fire development of hazardous combustion gases or vapours possible.

In case of fire, the following gases can be released: Dioxid, carbon monoxide and carbon dioxide.

5.3. Important Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device. Wear fully protective suit.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

6.2. Environmental precautions

Do not allow to enter sewers/ground water or penetrate the soil.

6.3. Methods and material for containment and cleaning up

Absorb with liquid binding material (sand diatomite, acid binders, universal binders, sawdust). Dispose of the material according to regulations.

6.4. Verweis auf andere Abschnitte

See section 7 for information on safe handling.

See section 8 for information on personal protection requirement.

See section 13 for disposal information.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

No special precautions are necessary if used correctly.

Information about fire – and explosion protection:

No special measures required.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptables: Store at a cool place.

Information about storage in one common storage faciliy: Store away from foodstuffs.

Further information about storage conditions: None.

Recommended storage temperature: 2-8°C



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA

Date of creation / revision: 2019-03-08

7.2. Specific end use(s)

No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities:

No further data; see item 7.

8.1. Control parameters

Ingredients with limit values that require monitoring at workplace:

The mixtures do not contain any relevant quantities of materials with critical values that have to be monitored at the working place.

Additional information:

The lists valid during the making were used as basis.

8.2. Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Avoid contact with the eyes and skin.

Immediately remove all soiled and contaminated clothing.

Individual protection measures:

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

Respiratory protection:



Not required.

Protection of hands:



Protective gloves – The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Nitrile, thickness: ≥ 0.11 mm

The selection of the suitable gloves does not only depend on the material, but alos on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA

Date of creation / revision: 2019-03-08

Penetration time of glove material:

Value of the permeation: Level ≥ 6

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles.

Body protection:



Protective work clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| Property | standards | Substrate Solution | Antibody Solution | Conjugate | Washing Solution (10x Conc.) | Sample Diluent |
|-----------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------|--------------------------------|
| General informati | ion | | | | | |
| Appearance: | | | | | | |
| Form: | fluid | fluid | fluid | fluid | fluid | fluid |
| Colour: | colourless | colourless | red | red | colourless | colourless |
| Odour: | odourless | odourless | odourless | odourless | odourless | odourless |
| Odour threshold: | No information available | No information available | No information available | No information available | No information available | No information available |
| pH-value at 25°C: | 6.8 – 7.8 | 3.3 – 3.8 | 5.6 – 6.6 | 6.2 – 7.2 | 6.2 – 7.2 | 6.8 – 7.8 |
| Change in condit | ion: | | | | | |
| Melting point/ Melting range: | No information available | No information available | No information available | No information available | No information available | No information available |
| Boiling point/Boiling range | 100 °C | No information available | 100 °C | 100 °C | 100 °C | 100 °C |
| Flash point: | No information available | No information available | No information available | No information available | No information available | No information available |



Safety Data Sheet According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Date of creation / revision: 2019-03-08

Trade name: Demeditec Folic Acid ELISA

| Property | standards | Substrate Solution | Antibody Solution | Conjugate | Washing Solution (10x Conc.) | Sample Diluent |
|--------------------------|-----------------------|--------------------------|-----------------------|-----------------------|------------------------------------|-----------------------|
| | T | T | | | T | T |
| Flammability | No | No | No | No | No | No |
| (solid, gaseous) | information available | information available | information available | information available | information available | information available |
| Ignition temperature: | | | | | | |
| Decomposition | No | No | No | No | No | No |
| temperature: | information | information | information | information | information | information |
| tomporataro | available | available | available | available | available | available |
| | The mixture | The mixture | The mixture | The mixture | The mixture | The mixture |
| Self-igniting: | is not self- | is not self- | is not self- | is not self- | is not self- | is not self- |
| | igniting | igniting | igniting | igniting | igniting | igniting |
| | The mixture | The mixture | The mixture | The mixture | The mixture | The mixture |
| Danger of | does not | does not | does not | does not | does not | does not |
| explosion: | present an | present an | present an | present an | present an | present an |
| explosion. | explosion | explosion | explosion | explosion | explosion | explosion |
| | hazard | hazard | hazard | hazard | hazard | hazard |
| Explosion limits: | | | | | | |
| | No | No | No | No | No | No |
| Lower: | information | information | information | information | information | information |
| | available | available | available | available | available | available |
| | No | No | No | No | No | No |
| Upper: | information | information | information | information | information | information |
| | available | available | available | available | available | available |
| Oxidizing | No | No | No | No | No | No |
| properties | information | information | information | information | information | information |
| properties | available | available | available | available | available | available |
| Vapour | No | No | No | No | No | No |
| pressure at | information | information | information | information | information | information |
| 20 °C: | available | available | available | available | available | available |
| Densitiy: | | | | | | |
| Density at 20 | No | No | No | No | No | No |
| °C: | information | information | information | information | information | information |
| <u> </u> | available | available | available | available | available | available |
| | No | No | No | No | No | No |
| Vapour density: | information | information | information | information | information | information |
| | available | available | available | available | available | available |
| Evaporation | No | No | No | No | No | No |
| rate: | information | information | information | information | information | information |
| | available | available | available | available | available | available |
| Solubility in / | Fully | Fully | Fully | Fully | Fully | Fully |
| Miscibility with | miscible | miscible | miscible | miscible | miscible | miscible |
| water: | | | | | | |
| Partition | No | No | No | No | No | No |
| coefficient | information | information | information | information | information | information |
| (n- | available | available | available | available | available | available |
| Octanol/Water) | | | | | | |
| Viscosity: | K1. | N.I. | N.I. | k t . | N.I. | k I . |
| D | No | No | No | No | No | No |
| Dynamic: | information | information | information | information | information | information |
| | available | available | available | available | available | available |
| Kinematic: | No | No | No | No | No | No |
| | information | information | information | information | information | information |



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Date of creation / revision: 2019-03-08

Trade name: Demeditec Folic Acid ELISA

| Property | standards | Substrate Solution | Antibody Solution | Conjugate | Washing Solution (10x Conc.) | Sample Diluent |
|----------|-----------|-----------------------|----------------------|-----------|------------------------------------|-------------------|
| | | | | | | |
| | available | available | available | available | available | available |

9.2. Other information

No further relevant information available.

10. STABILITY AND REACTIVITY

10.1. Reactivity

No information available.

10.2. Chemical stability

Thermal decomposition / conditions to be avoided

No decomposition if used and stored according to specifications.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No dangerous decomposition products known.

In case of fire see item 5.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity:

LD/LC50 values relevant for classification:

Quantitative data on the toxicity of the mixtures are not available.

Primary irrtant effect:

On the skin:

No irritating effect known.

On the eyes:

No irritating effect known.

After inhalation:

No irritating effect known.

Sensitization:

No sensitizing effects known.

CMR effects:

Germ cell mutagenicity:



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Date of creation / revision: 2019-03-08

Trade name: Demeditec Folic Acid ELISA

Carcinogenicty:

No information available.

No information available.

Reproductive toxicity:

No information available.

Aspiration hazard:

No aspiration toxicity classification.

Specific target organ toxicity – single exposure:

The mixtures are not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity - repeated exposure:

The mixtures are not classified as specific target organ toxicant, repeated exposure.

Additional toxicological information:

We have no description of any toxicological symptoms.

11.2. Further information

The product should be handled with the care ususal when dealing with chemicals.

Additional toxicological information:

When used and handled according to specifications, the mixtures do not have any harmful effects to our experience and the information provided to us.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Aquatic toxicity:

Quantitative data on the ecological effect of the mixtures are not available.

12.2. Persistence and degradability

No further relevant information available.

12.3. Bioaccumulative potential

No further relevant information available.

12.4. Mobility in soil

No further relevant information available.

Ecotoxical effects:

Remark:

Water hazard class 1 (German Regulation) (Self-assessment) - Do not allow to enter waters, sewers or soil.

12.5. Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

12.6. Other adverse effects

No further relevant information available.



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA

Date of creation / revision: 2019-03-08

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Recommendation: This material and its container must be disposed of as hazardous waste. The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

Uncleaned packaging:

Recommendation: Die Disposal according to official regulations.

Recommended Cleansing agents: Water, if necessary together with cleansing agents.

14. TRANSPORT INFORMATION

14.1. UN-Number ADR, IMDG, IATA: Void.

14.2. UN proper shipping name

ADR: Void. IMDG, IATA: Void

14.3. Transport hazard class(es) Void.

14.4. Packing group ADR, IMDG, IATA: Void.

14.5.Environmental hazards

Marine pollutant: No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

UN "Model Regulation": Void.

15. REGULATORY INFORMATION

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

National regulations:

Information about limitation of use:

Employment restrictions concerning juveniles must be observed.

Waterhazard class:

Water hazard class 1 (Self assessment): slightly hazardous for water.

15.2. Chemical safety assessment

A chemical saftety assessment has not been carried out.

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Date of creation / revision: 2019-03-08

Trade name: Demeditec Folic Acid ELISA

Relevant phrases:

Void.

Department issuing MSDS:

Department R & D

Contact:

+49 (0)431 / 71922-0, info@demeditec.de

Abbrevations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LD50: Letale Dose, 50 percent (Not relevant for classification)

LC50: Letale concentration, 50 percent (Not relevant for classification)



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA - Stop Solution

Date of creation / revision: 2019-03-08

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: Demeditec Folic Acid ELISA

Article Number: DEFOLE01

Components: 0) Microtiter Plate

Substrate Solution
 Antibody Solution

3) Conjugate

4) Washing Solution (10x Concentrate)

5) Sample Diluent6) Folic Acid Standards

7) Stop Solution

Concerning safety the microtiter plate (0) is inoffensive and for this reason not part of this document. The mixtures 1 - 6, due to coincident categorization, are combined as a group and treated separately above. The mixture 7 (Stop Solution) is the object of this safety data sheet and is dealt with below.

1.2. Application of the substance / the preparation

Stop Solution as part of the Demeditec Folic Acid ELISA.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier: Demeditec Diagnostics GmbH

Lise-Meitner-Str. 2

24145 Kiel Germany

Tel.: +49(0)431 / 71922-0

eMail-Address of the qualified person: <u>info@demeditec.de</u>

1.4. Emergency telephone number

In case of further inquiry please contact the telephone number +49 (0)431 / 71922-0 (technical service) or the emergency center for intoxication in Munich (Tel.: +49(0)89 19240) or any other adequate institution.



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA – Stop Solution Date of creation / revision: 2019-03-08

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or Directive 1999/45/EC:

Xi, Irritant

R36/38: Irritating to eyes and skin Classification according to Regulation (EC) No 1272/2008:

Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2 H319 Causes serious eye irritation.

Information concerning particular hazards for human and environment:

The mixture has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

2.2. Label elements

Labeling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS05

Signal word: Warning **Hazard statements:**

H315 Causes skin irritation.

H319 Causes serious eye irritation

Precautinary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

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

P362 Take off contaminated clothing and wash before reuse.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

PBT: Not applicable. vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical charcterization: Mixtures



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA - Stop Solution

Date of creation / revision: 2019-03-08

Description:

Aqueous solution.

Dangerous components:

| CAS No.: | 7664 | -93-9 | |
|---|------------------|--|--|
| Description: | Sulfur | ic acid | |
| EINECS: | 231-6 | 639-5 | |
| Index number: | 016-02 | 20-00-8 | |
| Elemental Formula: | H ₂ S | SO ₄ | |
| Molar Mass: | 98,08 | | |
| Concentration in mixture: | 0.5 M | | |
| Classification according to Directive 67/548/EEC or Directive 1999/45/EC: | | C R35 | |
| Classification according to Regulation (EC) No 1272/2008: | | Met Corr. 1 Skin Corr. 1A H290, H314 | |

Additinal information:

For the wording of the listed risk phrases refer to section 16.

4. FIRST AID MEASURES



4.1. Description of first aid measures

General information:

First aider: Pay attention for self protection!! Remove any clothing soiled by the product.

After Inhalation:

Remove to fresh air. I breathing is difficult, give oxygen. Seek medical advice immediately.

After skin contact:

Immediately rinse with water. After massive or prolonged skin contact: Seek medical advice.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and drink a glass of water. Do not induce vomiting. If there is any trouble seek medical help.

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

No further relevant information available.

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

No further relevant information available.

5. FIREFIGHTING MEASURES



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Date of creation / revision: 2019-03-08

Trade name: Demeditec Folic Acid ELISA - Stop Solution

5.1. Extinguishing media

Suitable extinguishing agents:

Use fire extinguishing methods suitable to surrounding conditions. CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents:

For this mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture

Ambient fire may liberate hazardous vapours.

In the event of fire development of hazardous combustion gases or vapours possible.

In case of fire, the following gases can be released: Sulphur dioxid, carbon monoxide and carbon dioxide.

5.3. Important Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device. Wear fully protective suit.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing. Keep away unprotected persons. Avoid eye or skin contact.

6.2. Environmental precautions

Do not allow to enter sewers/ground water or penetrate the soil.

6.3. Methods and material for containment and cleaning up

Absorb with liquid binding material (sand diatomite, acid binders, universal binders, sawdust).

Dispose of the material according to regulations.

Ensure adequate ventilation.

6.4. Reference to other sections

See section 7 for information on safe handling.

See section 8 for information on personal protection requirement.

See section 13 for disposal information.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

No special precautions are necessary if used correctly.

Information about fire - and explosion protection: No special measures required.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Store at a cool place.

Do not store in corrodible metal.

Provide acid-resistant floor.

Information about storage in one common storage faciliy: Store away from foodstuffs.

Further information about storage conditions: None.

Recommended storage temperature: 2-8°C

7.2. Specific end use(s)

No further relevant information available.



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA - Stop Solution

Date of creation / revision: 2019-03-08

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities:

No further data; see item 7.

8.1. Control parameters

| Ingredients with limit values that require monitoring at workplace: 7664-93-9 Sulphuric acid | | |
|--|---|--|
| AGW (Germany): | 0.1 E mg/m ³ 1 (I); DFG, EU, H, Y | |
| IOELV (EU): | 0.05 mg/m ³ | |

DNEL values (Sulphuric acid):

| DIVER Values (Guiphui | ic aciaj. | | |
|--|------------------|---------------------|--|
| workers | | | |
| long-term exposition - | - local effects: | | |
| Inhalativ: | DNEL | 0.05 mg/m³ (worker) | |
| short-term exposition – local effects: | | | |
| Inhalativ: | DNEL | 0.1mg/m³ (worker) | |

PNEC values (Sulphuric acid):

| . III T TUINGE | (Carpitatio acta): |
|----------------|-----------------------------------|
| | 8.8 mg/L (sewage treatment plant) |
| | 0.002 mg/kg (sea water sediment) |
| PNEC | 0.25 mg/L (Meerwasser) |
| | 0.002 mg/kg (Süßwassersediment) |
| | 0.0025 mg/L (fresh water) |

Additional information:

The lists valid during the making were used as basis.

8.2. Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Avoid contact with the eyes and skin.

Immediately remove all soiled and contaminated clothing.

Individual protection measures:

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

Respiratory protection:



Required when vapours/areosols are generated.

Protection of hands:



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Date of creation / revision: 2019-03-08

Trade name: Demeditec Folic Acid ELISA - Stop Solution



Protective gloves – The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves:

Nitrile, thickness: ≥ 0.11 mm

The selection of the suitable gloves does not only depend on the material, but alos on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

Value of the permeation: Level ≥ 6

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles.

Body protection:



Protective work clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| Property | Stop Solution (0.5 M Sulphuric Acid) | | |
|---------------------|--------------------------------------|--|--|
| | | | |
| General information | | | |
| Appearance: | | | |
| Form: | fluid | | |
| Colour: | colourless | | |
| Odour: | odourless | | |



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Date of creation / revision: 2019-03-08

Trade name: Demeditec Folic Acid ELISA - Stop Solution

| Property | Stop Solution (0.5 M Sulphuric Acid) | | |
|-----------------------------|--|--|--|
| | · · · · · · | | |
| Odour threshold: | No information available | | |
| pH-value at 25°C: | ~ 0.6 | | |
| Change in condition: | | | |
| Melting point/ Melting | No information available | | |
| range: | No information available | | |
| Boiling point/Boiling | 100°C | | |
| range: | .00 | | |
| Flash point: | No information available | | |
| Flammability (solid, | No information available | | |
| gaseous) | | | |
| Ignition temperature: | No information available | | |
| Decomposition | No information available | | |
| temperature: | The second secon | | |
| Self-igniting: | The mixture is not self-igniting | | |
| Danger of explosion: | The mixture does not present an explosion hazard | | |
| Explosion limits: | N : 6 (2 (3 1) 1) | | |
| Lower: | No information available | | |
| Upper: | No information available | | |
| Oxidizing properties | No information available | | |
| Vapour pressure at 20 °C: | 23 hPa | | |
| | | | |
| Density: Density at 20 °C: | 1.02 g/om3 | | |
| Vapour density: | 1,03 g/cm ³ No information available | | |
| Evaporation rate: | No information available | | |
| Solubility in / Miscibility | No information available | | |
| with water: | Fully miscible | | |
| Partition coefficient | | | |
| (n-Octanol/Water) | No information available | | |
| Viskosity: | | | |
| Dynamic: | No information available | | |
| Kinematic: | No information available | | |

9.2. Other information

No further relevant information available.

10. STABILITY AND REACTIVTY

10.1. Reactivity

See section 10.3..

10.2. Chemical stability

Thermal decomposition / conditions to be avoided

No decomposition if used and stored according to specifications.

10.3. Possibility of hazardous reactions

Reacts with alkali (lyes).

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No dangerous decomposition products known.

In case of fire see item 5.



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Date of creation / revision: 2019-03-08

Trade name: Demeditec Folic Acid ELISA - Stop Solution

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity:

LD/LC50 values relevant for classification:

Quantitative data on the toxicity of this product are not available.

Primary irrtant effect:

On the skin:

Irritant to skin and mucous membranes.

On the eyes:

Irritant.

After inhalation:

Irritant to skin and mucous membranes.

Sensitization:

No sensitizing effects known.

CMR effects:

Germ cell mutagenicity:

No information available.

Carcinogenicty:

No information available.

Reproductive toxicity:

No information available.

Aspiration hazard:

No aspiration toxicity classification.

Specific target organ toxicity - single exposure:

The mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity – repeated exposure:

The mixture is not classified as specific target organ toxicant, repeated exposure.

Additional toxicological information:

We have no description of any toxicological symptoms.

11.2. Further information

The product should be handled with the care ususal when dealing with chemicals.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Aquatic toxicity:

Quantitative data on the ecological effect of this product are not available.

12.2. Persistence and degradability

No further relevant information available.

12.3. Bioaccumulative potential

No further relevant information available.

12.4. Mobility in soil

No further relevant information available.

Ecotoxical effects:

Remark:

Water hazard class 1 (German Regulation) (Self-assessment) - Do not allow to enter waters, sewers or soil.

12.5. Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

12.6. Other adverse effects

No further relevant information available.



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Date of creation / revision: 2019-03-08

Trade name: Demeditec Folic Acid ELISA - Stop Solution

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Recommendation:

This material and its container must be disposed of as hazardous waste.

The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

Uncleaned packaging:

Recommendation:

Die Disposal according to official regulations.

Recommended Cleansing agents:

Water, if necessary together with cleansing agents.

14. TRANSPORT INFORMATION

14.1. UN-Number

ADR, IMDG, IATA: UN2796

14.2. UN proper shipping name

ADR: "2796 Battery fluid, acid or Sulphuric acid with not more than 51 percent acid, N.O.S."

IMDG, IATA: "SULFURIC ACID, N.O.S."

14.3. Transport hazard class(es)

ADR:

Class:

8 Corrosive substances

Label:

Q

IMDG, IATA:



Class:

8 Corrosive Substances

Label:

8

14.4. Packing group ADR, IMDG, IATA: ||



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Date of creation / revision: 2019-03-08

Trade name: Demeditec Folic Acid ELISA - Stop Solution

14.5.Environmental hazards Marine pollutant: No.

14.6. Special precautions for user

Warning: Corrosive substances.

Danger code (Kemler):

80

EMS number:

F-A, S-B

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

| Transport/Additional information (ADR) | | |
|--|-----|--|
| Limited quantities (LQ) | 5 L | |
| Transport category | 3 | |
| Tunnel restriction code | E | |

UN "Model Regulation":

2796 Battery fluid, acid or Sulphuric acid with not more than 51 percent acid, N.O.S., 8, II

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substances or mixture National regulations:

Information about limitation of use:

Employment restrictions concerning juveniles must be observed.

Waterhazard class:

Water hazard class 1 (Self assessment): slightly hazardous for water.

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

| Phrase | Definition |
|--------|--------------------------------|
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| R36/38 | Irritating to eyes and skin. |



According to 1907/2006/EC, Article 31 (REACH) According to 1272/2008/EC (GHS/CLP)

Version Nr. 2

Trade name: Demeditec Folic Acid ELISA - Stop Solution

Date of creation / revision: 2019-03-08

Department issuing MSDS:

Department R & D

Contact:

+49(0)431 / 71922-0, info@demeditec.de

Abbrevations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LD50: Letale Dose, 50 percent (Not relevant for classification)

LC50: Letale concentration, 50 percent (Not relevant for classification)