

According to 1907/2006/EC, Article 31 (REACH)

Version No. 1a

Trade name: Demeditec Fumonisin ELISA

Date of creation / revision: 2014-01-31

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

1.1. Product identifier	
Trade name:	
Article Number:	

Fumonisin ELISA DEFUME03

Components:

Microtiter Plate
Substrate Solution
Antibody Solution
Conjugate
Washing Solution (10x Concentrate)
Sample Diluent
Fumonisin Standards
Stop Solution

Concerning safety The microtiter plate (0) is inoffensive and for this reason not part of this document. The mixtures 1 - 5, due to coincident categorization, are combined As a group and treated and dealt with below. The mixtures 6 (standards) and 7 (Stop Solution) are each treated in a separate safety data sheet.

1.2. Application of the substance / the preparation

Enzyme immunoassay for the quantitative determination of Fumonisin in food.

1.3. Company / undertaking identification

Manufacturer/Supplier:	Demeditec Diagnostics GmbH
	Lise-Meitner-Str. 2
	24145 Kiel
	Germany
	Tel.: +49(0)431 / 71922-0

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

1.4. Emergency telephone

In case of further inquiry please contact the telephone number +49(0)431/71922-0 (technical service, business hours 8 a.m. to 4:30 p.m.).



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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 guideline 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.

Void.
Void.
Void.
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 characterization: Mixtures

Description: Mixtures of substances with nonhazardous additions.

Dangerous components: Void.

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



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Trade name: Demeditec Fumonisin FLISA

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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.

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: Dioxide, carbon monoxide and carbon dioxide.

5.3. Important Advice for firefighters

Protective equipment:

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



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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. 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 <u>Storage:</u>

Requirements to be met by storerooms and receptables: Store at a cool place. Information about storage in one common storage facility: 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.



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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:



Protection of hands:



Not required.

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 also 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 \geq 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.



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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Property	Substrate	Antibody	Conjugate	Washing	Sample Diluent
	Solution	Solution		Solution (10x	
				Conc.)	
General information					
Appearance:	4 1	f l. : 1	fla di al	f (;.)	f [].
Form:	fluid	fluid	fluid	fluid	fluid
Colour:	colourless	blue	red	colourless	red
Odour:	odourless	odourless	odourless	odourless	odourless
Odour threshold:	No information				
	available	available	available	available	available
pH-value at 25°C:	3,3 – 3,8	6,5 – 7,5	6,2 – 7,2	6,2 – 7,2	6,8 – 7,8
Change in condition:					
Melting point/	No information				
Melting range:	available	available	available	available	available
Boiling point/	No information	100 °C	100 °C	100 °C	100 °C
Boiling range	available				
Flash point:	No information				
-	available	available	available	available	available
Flammability	No information				
(solid, gaseous)	available	available	available	available	available
Ignition temperature:					
Decomposition	No information				
temperature:	available	available	available	available	available
Self-igniting:	The mixture is not				
	self-igniting	self-igniting	self-igniting	self-igniting	self-igniting
	The mixture does				
Danger of explosion:	not present an				
	explosion hazard				
Explosion limits:					
Lower:	No information				
Lowen	available	available	available	available	available
Upper:	No information				
	available	available	available	available	available
Oxidizing properties	No information				
	available	available	available	available	available
Vapour pressure	No information				
at 20 °C:	available	available	available	available	available
Density:					
Density at 20 °C:	No information				
	available	available	available	available	available
Vapour density:	No information				
	available	available	available	available	available
Evaporation rate:	No information				
	available	available	available	available	available
Solubility in /	Fully miscible				
Miscibility with water:					
Partition coefficient	No information				
(n-Octanol/Water)	available	available	available	available	available
Viscosity:					
	No information				
Dynamic:	available	available	available	available	available
Kinomotio	No information				
Kinematic:	available	available	available	available	available

9.2. Other information

No further relevant information available.



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10. STABILITY AND REACTIVTY

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 irritant effect:

On the skin: No irritating effect known.

On the eyes: No irritating effect known.

After inhalation: No irritating effects known.

Sensitization: No sensitizing effects known.

CMR effects:

Germ cell mutagenicity: No information available.

Carcinogenicity: 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 usual 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.



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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. Bio accumulative potential

No further relevant information available.

12.4. Mobility in soil

No further relevant information available. <u>Ecotoxical effects:</u> **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.

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.



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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 <u>National regulations:</u>

Information about limitation of use: Employment restrictions concerning juveniles must be observed. **Water hazard 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.



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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:	Void.
Department issuing MSDS:	Department R & D
Contact:	0049-431-71922-0, info@demeditec.de

Abbreviations 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 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)

*Data compared to the previous version altered.



Version No. 1a

Trade name: Fumonisin ELISA – Fumonisin Standards

Date of creation / revision: 2014-01-31

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

1.1. Product identifier	
Trade name:	Fumonisin ELISA
Article Number:	DEFUME03

Components:

0) Microtiter Plate
1) Substrate Solution
2) Antibody Solution
3) Conjugate
4) Washing Solution (10x Concentrate)
5) Sample Diluent
6) Fumonisin Standards
7) Stop Solution

Concerning safety The microtiter plate (0) is inoffensive and for this reason not part of this document. The mixtures 1 - 5, due to coincident categorization, are combined As a group and treated separately. The mixture 7 (Stop solution) is also treated in a separate safety data sheet. The mixtures 6 (Fumonisin Standards) are the object of this safety data sheet and is dealt with below.

1.2. Application of the substance / the preparation

Fumonisin Standards as part of the Demeditec Fumonisin ELISA.

1.3. Company / undertaking identification

Manufacturer/Supplier:	Demeditec Diagnostics GmbH
	Lise-Meitner-Str. 2
	24145 Kiel
	Germany
	Tel.: +49(0)431 / 71922-0
eMail-Address of the qualified person:	info@demeditec.de

1.4. Emergency telephone

In case of further inquiry please contact the telephone number +49(0)431/71922-0 (technical service, business hours 8 a.m. to 4:30 p.m.).



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2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

T; Toxic

R23/24/25-39/23/24/25: Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

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

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.

STOT SE 1 H370 Causes damage to organs.

Special hazard notes for human and environment: The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparation 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:



Signal word:Danger.Hazard statements:Danger.H301+H311+H331Toxic if swallowed, in contact with or if inhaled.H370Causes damage to organs.

Precautionary statements:

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P311	Call a POISON CENTER or doctor/physician.

2.3. Other hazards

All chemicals are potentially dangerous. They should only be handled by specially trained personnel..**PBT:**Not applicable.**vPvB:**Not applicable.



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

Description: Mixture with methanol

Dangerous components:

Dangerous components.			
CAS-No.:	67+56-1		
Description:	Methanol		
EINECS:	200-6	659-6	
Index number:	603-00)1-00-X	
Elemental formula:	CF	I ₄ O	
Molar Mass:	32,04		
Concentration in mixture:	5%		
Classification according to Directive 67/548/EEC or Directive 1999/45/EC:		T R23/24/25- R39/23/24/25	
Classification according to Regulation (EC) No 1272/2008:		Acute Tox. 3 STOT SE 1 H301 + H311 + H331, H370	

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



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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. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After Inhalation: Remove to fresh air. I breathing is difficult, give oxygen. Seek medical advice immediately. **After skin contact:** Immediately wash with water and soap and rinse thoroughly. After massive or prolonged skin contact: Medical advice absolutely required!

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

After swallowing: Remove to fresh air. Do not induce vomiting. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage). Call a doctor immediately.

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

- Irritations
- Dizziness
- Headache
- Impairment of vision
- Cramp
- Nausea
- Vomiting
- Unconsciousness

Hazards: Danger of impaired breathing. Blindness.

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: Carbon monoxide and carbon dioxide.

5.3. Important Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device. Wear fully protective suit.



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Date of creation / revision: 2014-01-31

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

Ensure good ventilation/exhaustion at the workplace

Information about fire – and explosion protection:



Keep ignition sources away - Do not smoke.

7.2. Conditions for safe storage, including any incompatibilities <u>Storage:</u>

Requirements to be met by storerooms and receptables: Store at a cool place. Information about storage in one common storage facility: Store away from foodstuffs. Further information about storage conditions: Keep container tightly closed. Recommended storage temperature: 2-8°C

7.2. Specific end use(s) No further relevant information available.



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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:		
67-56-1 Methanol		
AGW (Germany):	270 mg/m ³ , 200 mL/m ³ 4 (II); DFG, EU, H, Y	
IOELV (EU):	260 mg/m ³ , 200 mL/mL	

DNEL values (Methanol):

workers					
long-term exposition – sys	long-term exposition – systemic effects:				
Dermal:	DNEL	40 mg/kg (Worker)			
Inhalative:	DNEL	260 mg/m ³ (Worker)			
long-term exposition – local effects:					
Inhalative:	DNEL	260 mg/m ³ (Worker)			
short-term exposition – systemic effects:					
Dermal:	DNEL	40 mg/kg (Worker)			
Inhalative:	DNEL	260 mg/m ³ (Worker)			
short-term exposition – local effects:					
Inhalative:	DNEL	260 mg/m ³ (Worker)			

Consumer				
long-term exposition – systemic effects:				
Oral:	DNEL	8 mg/kg (Consumer)		
Dermal:	DNEL	8 mg/kg (Consumer)		
Inhalative:	DNEL	50 mg/m³ (Consumer)		
long-term exposition – local effects:				
Inhalative:	DNEL	50 mg/m³ (Consumer)		
short-term exposition – systemic effects:				
Oral:	DNEL	8 mg/kg (Consumer)		
Dermal:	DNEL	8 mg/kg (Consumer)		
Inhalative:	DNEL	50 mg/m ³ (Consumer)		
short-term exposition – local effects:				
Inhalative:	DNEL	50 mg/m ³ (Consumer)		

PNEC values (Methanol):

	24 mg/kg (Soil)
	100 mg/L (Sewage treatment plant)
PNEC	15 mg/mL (Marine water)
	570 mg/kg (Fresh water sediment)
	154 mg/L (Fresh water)

Additional information: The lists valid during the making were used as basis.



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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. Do not inhale gases / fumes / aerosols. Clean skin thoroughly immediately after handling the product.

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:

Protection of hands:



Required when vapours/aerosols are generated. Recommended filter type: Filter AX (colour code: brown). When selecting your respiratory unit: Consider the "Rules for the use of respiratory protection equipment" (BGR190)

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: Butylcaoutchouc, thickness: ≥ 0,7 mm. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material: Value for 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.





Protective work clothing.



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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physica Property	Standards (5% Methanol)
Froperty	Standards (5% Methanol)
General information	
Appearance:	
Form:	fluid
Colour:	red
Odour:	alcoholic
Odour threshold:	2000 ppm (Methanol)
pH-value at 25°C:	6 - 8
Change in condition :	0-0
Melting point/ Melting	
range:	No information available
Boiling point/Boiling range:	1. 65°C (Methanol) 2. 100°C (Water)
Flash point:	No information available
Flammability (solid,	
gaseous):	No information available
Ignition temperature:	No information available
Decomposition	Nie information avoidable
temperature:	No information available
Self-igniting:	The mixture is not self-igniting
Danger of explosion:	The mixture does not present an explosion hazard
Explosion limits:	
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:	0,99 g/cm ³
Vapour density:	No information available
Evaporation rate:	No information available
Solubility in / Miscibility	
with water:	Fully miscible
Partition coefficient	No. S. Company, March 19, 111
(n-Octanol/Water):	No information available
Viscosity:	
Dynamic:	No information available
Kinematic:	No information available
Solvent content:	
Organic solvents:	5%
Water:	95%

9.2. Other information

No further relevant information available.



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10. STABILITÄT UND REAKTIVITÄT

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:

67-56-1 Methanol

Oral:	LD0	143 mg/kg (human) (TOXNET)
	LD50	5628 mg/kg (rat) (IUCLID)
dermal:	LD50	15800 mg/kg (rabbit) (TOXNET)
Inhalative:	LC50/ 4h	85,3 mg/L (rat) (IUCLID)

Primary irritant effect:

On the skin: Danger through skin adsorption. Repeated exposure may cause skin dryness or cracking. **On the eyes:** Slightly Irritant.

after inhalation: Absorption. Irritation symptoms in the respiratory tract.

Sensitization: No sensitizing effects known.

CMR effects:

Germ cell mutagenicity: No information available.

Carcinogenicity: 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 (methanol):

After swallowing: Nausea, Vomiting

Systemic effects: Blood pressure drop, Irritation, Inebriation, Headache, Dizziness, Impairment of vision, Spasms, Narcosis, Coma, Possibly respiratory arrest and heart attack, Symptoms may be delayed, Irreversible damage of the optical nerve, Blinding, Damage of liver and kidneys.

11.2. Further information

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



According to 1907/2006/EC, Article 31 (REACH)

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12. ECOLOGICAL INFORMATION

12.1. Toxicity	
Aquatic Toxicity (Methanol)	:
Fish toxicity	
LC50	15400 mg/l/96 h
Daphnia toxicity	
EC5	>10000 mg/L/72 h (Entosiphon sulcatum) (Lit)
EC50	>10000 mg/L/48 h (Daphnia magna) (IUCLID)
Algeal toxicity	
IC5	8000 mg/L/8 d (Scenedesmus quadricauda) (IUCLID)
Bacterial toxicity	
EC5	6600 mg/L/16 h (Pseudomonas putida) (IUCLID)

12.2. Persistence and degradability

Easily biodegradable.

12.3. Bio accumulative 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.

13. DISPOSAL CONSIDERATIONS

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.



Version No. 1a

Trade name: Fumonisin ELISA - Fumonisin Standards

Date of creation / revision: 2014-01-31

14. **TRANSPORT INFORMATION**

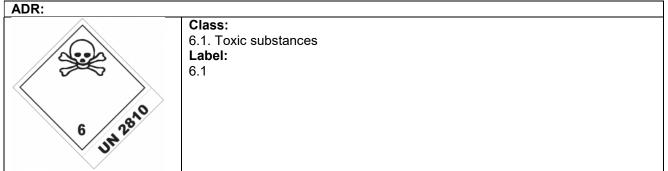
14.1. UN-Number

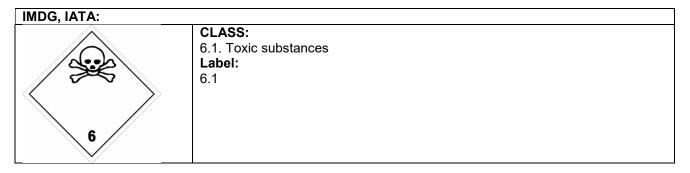
ADR, IMDG, IATA: UN2810

14.2. UN proper shipping name

ADR: "2810 TOXIC LIQUID, ORGANIC, N.A.G. (METHANOL)" IMDG, IATA: "TOXIC LIQUID, ORGANIC, N.O.S. (METHANÓL)

14.3. Transport hazard class(es):





14.4. Packing group ADR, IMDG, IATA: II

14.5.Environmental hazards Marine pollutant: No.

14.6. Special precautions for user Danger code (Kemler): 60 EMS-Number: F-A, S-A

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)	1 L
Transport category	2
Tunnel restriction code E	
UN "Model Regulation":	

2810 TOXIC LIQUID, ORGANIC, 6.1, II.



According to 1907/2006/EC, Article 31 (REACH)

Version No. 1a

Trade name: Fumonisin ELISA – Fumonisin Standards

Date of creation / revision: 2014-01-31

15. REGULATORY INFORMATION

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

Information about limitation of use: Employment restrictions concerning juveniles must be observed. Employment restrictions concerning juveniles must be observed.

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

Technical instructions air:

Class	Share in %
Water	95
1	5

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 Sentences:

Phrase	Definition
H301	Toxic if swallowed
H311	Toxic in contact with skin
H331	Toxic if inhaled
H370	Causes damage to organs
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed
R39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Department issuing MSDS: Department R & D

Contact: 0049-431-71922-0, info@demeditec.de

Abbreviations 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)

*Data compared to the previous version altered.



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Trade name: Fumonisin ELISA – Stop Solution

Date of creation / revision: 2014-01-31

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

1.1. Product identifier	
Trade name:	
Article Number:	

Fumonisin ELISA DEFUME03

Components:

0) Microtiter Plate
1) Substrate Solution
2) Antibody Solution
3) Conjugate
4) Washing Solution (10x Concentrate)
5) Sample Diluent
6) Fumonisin Standards
7) Stop Solution

Concerning safety The microtiter plate (0) is inoffensive and for this reason not part of this document. The mixtures 1 - 5, due to coincident categorization, are combined As a group and treated separately. The mixtures 6 (standards) are also treated in a separate safety data sheet. 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 Fumonisin ELISA.

1.3. Company / undertaking identification

Manufacturer/Supplier:	Demeditec Diagnostics GmbH
	Lise-Meitner-Str. 2
	24145 Kiel
	Germany
	Tel.: +49(0)431 / 71922-0
eMail-Address of the qualified person:	info@demeditec.de

1.4. Emergency telephone

In case of further inquiry please contact the telephone number +49(0)431/71922-0 (technical service, business hours 8 a.m. to 4:30 p.m.).

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

X _i , 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.



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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.
Precautionary statem	ients:
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 poter	tially dangerous. They should only be handled by specially trained personnel.
PBT:	Not applicable.
vPvB:	Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

Description: Aqueous solution.

Dangerous components:		
CAS No.:	7664-93-9	
Description:	Sulfur	ic acid
EINECS:	231-0	639-5
Index number:	016-02	20-00-8
Elemental Formula:	H ₂ SO ₄	
Molar Mass:	98,08	
Concentration in mixture:	0.5 M	
Classification according to Directive 67/548/EEC or Directive 1999/45/EC:	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	C R35
Classification according to Regulation (EC) No 1272/2008:		Met Corr. 1 Skin Corr. 1A H290, H314

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



According to 1907/2006/EC, Article 31 (REACH)

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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. If 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

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 dioxide, carbon monoxide and carbon dioxide.

5.3. Important Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device. Wear fully protective suit.



According to 1907/2006/EC, Article 31 (REACH)

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Trade name: Fumonisin ELISA – Stop Solution

Date of creation / revision: 2014-01-31

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:

Requirements to be met by storerooms and receptables: Store at a cool place. Do not store in corrodible metal. Provide acid-resistant floor.

Information about storage in one common storage facility: 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.



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EXPOSURE CONTROLS/PERSONAL PROTECTION 8.

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):

workers		
long-term exposition – local effects:		
Inhalative:	DNEL	0.05 mg/m ³ (worker)
short-term exposition – local effects:		
Inhalative:	DNEL	0.1mg/m ³ (worker)

PNEC values (Sulphuric acid):

	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.



According to 1907/2006/EC, Article 31 (REACH)

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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: Protection of hands:





Required when vapours/areosols are generated.

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 also 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 \geq 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.



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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
Odour threshold:	No information available
pH-value at 25°C:	~ 0,6
Change in condition:	
Melting point/ Melting range:	No information available
Boiling point/Boiling range:	100°C
Flash point:	No information available
Flammability (solid, gaseous)	No information available
Ignition temperature:	No information available
Decomposition temperature:	No information available
Self-igniting:	The mixture is not self-igniting
Danger of explosion:	The mixture does not present an explosion hazard
Explosion limits:	
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:	1,03 g/cm ³
Vapour density:	No information available
Evaporation rate:	No information available
Solubility in / Miscibility with	Fully miscible
water:	,
Partition coefficient (n-	No information available
Octanol/Water)	
Viscosity:	No information available
Dynamic: Kinematic:	No information available
Ninematic:	No information available

9.2. Other information

No further relevant information available.



According to 1907/2006/EC, Article 31 (REACH)

Version No. 1a

Trade name: Fumonisin ELISA - Stop Solution

Date of creation / revision: 2014-01-31

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.

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 irritant 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.

Carcinogenicity: 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 usual when dealing with chemicals.



According to 1907/2006/EC, Article 31 (REACH)

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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. Bio accumulative potential

No further relevant information available.

12.4. Mobility in soil

No further relevant information available. <u>Ecotoxical effects:</u> **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.

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.



According to 1907/2006/EC, Article 31 (REACH)

Version No. 1a

Trade name: Fumonisin ELISA - Stop Solution

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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:	
8	Class: 8 Corrosive substances Label: 8
IMDG, IATA:	
8	Class: 8 Corrosive Substances Label: 8

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

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 Degulation()	

UN "Model Regulation":

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



According to 1907/2006/EC, Article 31 (REACH)

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15. REGULATORY INFORMATION

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

Information about limitation of use: Employment restrictions concerning juveniles must be observed. **Water hazard 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.

Department issuing MSDS:	Department R & D
Contact:	0049-431-71922-0, info@demeditec.de

Abbreviations 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)

*Data compared to the previous version altered.