MATERIAL SAFETY DATA SHEET

KRISHGEN BioSystems
OUR REAGENTS, YOUR RESEARCH

SECTION 1

Identification of the Product:
GENLISA Porcine Streptococcus suis (S.suis) Antibody ELISA (CAT: KAD1051)

Use of the Product:
For Research Use Only. The GENLISA™ / KRIBIOLISA™ ELISA kit is used as an analytical tool for quantitative/qualitative determination of antibody / antigen biomarker in samples.

Company / Undertaking:
Identification:

KRISHGEN BIOSYSTEMS
Contact Email: info@krishgen.com
Emergency Telephone: (888)-970-0827 / +91(22)-491-98-700

Kit Components:

A) Microtitre Plate
B) Detection Conjugated:HRP
C) Standards (concentrated, lyophilized)
D) Standard Diluent / Sample Diluent
E) Standard
F) Controls
G) Wash Buffer
H) TMB Substrate
I) Stop Solution

- (20X) Wash Buffer (Component F) containing 0.01% Thiomersal(CAS No-54-64-8) (EC) No.200-210-4. The classification of (0.01%) according to regulation (EC) no 1272/2008 is H317, H413. Safety Data sheet for Thiomersal according to actual Regulations (EC/EU) is attached.
- Components C-E containing Methylisothiazolinone is a hazardous mixture according to CLP Regulation (EC) as amended. Safety Data Sheet for Methylisothiazolinone according to actual Regulations (EC/EU) is attached.
- Components B-E containing 0.02% bromonitrodioxane is a hazardous mixture according to CLP Regulation (EC) as amended. Safety Data Sheet for bromonitrodioxane according to actual Regulations (EC/EU) is attached
- Stop Solution (Component H) containing Phosphoric Acid is a hazardous mixture according to CLP Regulation (EC) as amended. Safety Data Sheet for Phosphoric Acid according to actual Regulations (EC/EU) is attached.
- TMB Substrate (Component G) containing Stabilized Chromogen
- The other components do not contain any hazardous mixture according to CLP Regulation (EC) as amended.

SECTION 2
HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation 1272/2008/EC:
Mixtures containing Thiomersal are considered hazardous according to Regulation (EC) No. 1272/2008.

2.2 Label elements
Labeling according to Regulation (EC) No 1272/2008

Pictogram:

Signal word:	Warning
Hazard statements:	300, 310, 330, 373, 400, 410
Precautionary statements:	P280, P302 + P352, P305 + P351 + P338, P310

For full text of H- and P-phrases see section 16.

2.3 Supplemental hazards statements **None**

SECTION 3
COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Description: Wash Buffer as a mixture containing Thiomersal as preservative.

Ingredient	Conc. %	CAS-Nr.	Index-Nr.
Thiomersal	0.01%		200-210-4

Classification according to regulation 1272/2008/EC: Skin Sens. 1, H317
Specific concentration limits: Skin Corr. 1B, H314: C20,6 %; Skin Irrit. 2, H315: 0,06 %:sC<0,6 %; Eye Irrit. 2, H319: 0,06 %:sC<0,6 %; Skin Sens. 1, H317: C20,0015 %., EUH208: C20,00015 %

Description: Enzyme Conjugate as a mixture containing Methylisothiazolinone and bromonitrodioxan as preservative.

Ingredient	Conc. %	CAS-Nr.
Methylisothiazolinone	0.02%	2682-20-4
Bromonitrodioxan	0.02%	30007-47-7

Classification according to regulation 1272/2008/EC: Skin Sens. 1, H317
Specific concentration limits: Skin Corr. 1B, H314: C20,6 %; Skin Irrit. 2, H315: 0,06 %:sC<0,6 %; Eye Irrit. 2, H319: 0,06 %:sC<0,6 %; Skin Sens. 1, H317: C20,0015 %., EUH208: C20,00015 %

Description: Standards as a mixture containing Methylisothiazolinone and bromonitrodioxan as preservative.

Ingredient	Conc. %	CAS-Nr.
Methylisothiazolinone	0.02%	2682-20-4
Bromonitrodioxan	0.02%	30007-47-7

Classification according to regulation 1272/2008/EC: Skin Sens. 1, H317
Specific concentration limits: Skin Corr. 1B, H314: C20,6 %; Skin Irrit. 2, H315: 0,06 %:sC<0,6 %; Eye Irrit. 2, H319: 0,06 %:sC<0,6 %; Skin Sens. 1, H317: C20,0015 %., EUH208: C20,00015 %

Description: Standard/Sample Diluent as a mixture containing Methylisothiazolinone and bromonitrodioxan as preservative.

Ingredient	Conc. %	CAS-Nr.

Methylisothiazolinone	0.02%	2682-20-4
Bromonitrodioxan	0.02%	30007-47-7

Classification according to regulation 1272/2008/EC: Skin Sens. 1, H317
Specific concentration limits: Skin Corr. 1B, H314: C20,6 %; Skin Irrit. 2, H315: 0,06 %:sC<0,6 %; Eye Irrit. 2, H319: 0,06 %:sC<0,6 %; Skin Sens. 1, H317: C20,0015 %., EUH208: C20,00015 %

Description: Stop Solution as a mixture containing Phosphoric Acid

Ingredient	Conc. %	CAS-Nr.	Index-Nr.
Phosphoric Acid	0.73M	7664-38-2	028-032-00-0

Classification according to regulation 1272/2008/EC: Carc. 1A, H350i STOT RE 1, H372** Resp. Sens. 1, H334 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

For full text of H-phrases see section 16.

SECTION 4
FIRST AID MEASURES

4.1 Description of first aid measures:

If in eyes: Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.

If on skin (or hair): Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician.

SECTION 5
FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing agents

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special precautions for fire-fighters

Self-contained breathing apparatus and full protective clothing must we worn in case of fire.

SECTION 6
ACCIDENTAL RELEASE MEASURES

6.1 Person-related safety precautions

Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Measures for environmental protection

Keep away from drains.

6.3 Measures for containment and cleaning

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7
HANDLING AND STORAGE

7.1 Precautions for safe handling:
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use normal measures for preventive fire protection.

7.2 Conditions for safe storage:
Store in a cool and dry place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8
EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Contains no substances with occupational exposure limit values.

8.2 Individual protection measures
Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Eye/face protection: Wear approved safety goggles.
Skin/hand protection: Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection: Wear suitable protective clothing as protection against splashing or contamination.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.
Respiratory protection: In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9
PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Clear Liquid
Odor:	Not available
Odor Threshold:	Not available
pH:	Not available
Melting Point / Freezing Point:	Not available
Boiling Point / Boiling Range:	100ºC

Flash Point:	No information available
Evaporation Rate:	No information available
Flammability (solid, gas):	No information available
Upper/Lower Flammability or Explosive Limit:	Not available
Vapor Pressure:	Not available
Relative Density:	1.06 g/cm^3

Solubility in/Miscibility with Water:	Soluble
Partition Coefficient: noctanol/water:	Not available
Auto Igniting:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available

SECTION 10
STABILITY AND REACTIVITY

10.1 Chemical Stability
Stable under recommended storage conditions.

10.2 Conditions to avoid
Strong oxidizing agents, reducing agents, Amines, Mercaptans

10.3 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas.

SECTION 11
TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:
LD50 Oral – rat – 75 mg/kg

Skin corrosion/irritation:	Slight irritation
Serious eye damage/irritation:	Slight irritation
Respiratory or skin sensitization:	May cause allergic skin reaction.
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity (STOT) -single exposure:	No data available
Specific target organ toxicity (STOT) -repeated exposure:	No data available
Aspiration hazard:	Can cause severe burns.
Information on likely routes of exposure:	Routes of entry anticipated; Oral; dermal; inhalation

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation:	Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion:	Harmful if swallowed. Causes burns.
Skin contact:	Harmful if absorbed through skin. Causes burns.
Eye contact:	Causes eye burns.

Delayed and immediate effects and also chronic effects from short - and long-term exposure:
Short term exposure: Potential immediate effects: Not available. Potential delayed effects: Not available.
Long term exposure: Potential immediate effects: Not available. Potential delayed effects: Allergic contact dermatitis.
Effects of chronic exposure:
No information available
Numerical measures of toxicity:
Not available
Other Information:

Not available

SECTION 12
ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No data available.

12.2 Biodegradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Other adverse effects
Only relevant for the preservative Thiomersal.

Species	Type	Value	Exposition time (h)
Catfish	LC50 (mg/l)	7,5	24

Persistence and degradability

Substance	t1/2 anaerob (h)
Thiomersal	no information available

Bioaccumulative potential
No information available

Substance	Log Pow
Thiomersal	-1,88

Bioaccumulation is not expected because log Pow < 1

SECTION 13
DISPOSAL CONSIDERATIONS

13.1 Disposal methods
Dispose of waste in accordance to applicable national, regional, or local regulations.

13.2 Contaminated packaging
Dispose in the same manner as unused product.

13.3 Special precautions
Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilled material to soil, waterways, drains and sewers.

SECTION 14
TRANSPORT INFORMATION

UN Number:	None
DOT regulations: Hazard class:	None
Land transport ADR/RID (cross-border):	Not regulated.
Maritime transport IMDG:	Not regulated.
Marine pollutant:	No
Air transport ICAO-TI and IATA-DGR:	Not regulated.
Transport/Additional information:	Not dangerous according to above

SECTION 15
REGULATORY INFORMATION

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

Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended. Implemented regulations to Act No. 350/2011 Coll., as amended. The Waste Act as amended. Government Decree No. 361/2007 Coll., to regulate the conditions of occupational health and safety, as amended. Regulation of the European Parliament and the Council (EC) No. 1907/2006 (REACH). Regulation of the European Parliament and the Council (EC) No. 1272/2008 (CLP). Commission Regulation (EU) No. 830/2015.

SECTION 16
OTHER INFORMATION

Full text of H- and P-phrases:

H300 Fatal when swallowed
H310 Fatal when skin contact
H330 Fatal if inhaled
H373 May cause damage to organs through prolonged or repeated exposure
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects
Precautionary statements
P280 Wear protective gloves, protective clothing, eye protection
P302+P352 If on skin: Wash with plenty of soap and water
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rising.
P310 Immediately call a POISON CENTER or doctor/physician

Note:
The safety data sheet contains data necessary for ensuring occupational health and safety and protection of the environment. The given data correspond to the current state of knowledge and experience and comply with valid legal regulations. The data cannot be considered a guarantee that the specific use of the product will be appropriate.

SECTION 1
IDENTIFICATION OF THE PREPARATION AND OF COMPANY/UNDERTAKING

1.1 Product identifier
Trade name: Methylisothiazolinone
Additional identification: solution with concentration 0.02%
1.2 Relevant identified uses of the substance or mixture and uses advised against
Component in Standards, Controls, Assay Diluent, Standard/Sample Diluent.
1.3 Details of the supplier of the safety data sheet

SECTION 2
HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation 1272/2008/EC:
Not a hazardous substance at concentration 0.02%
2.2 Label elements
Labeling according Regulation (EC) No 1272/2008
Acute toxicity, Oral 4
Pictograms: Skin corrosion, 1B
Serious eye damage, 1
Acute aquatic toxicity, 3

Chronic aquatic toxicity, 3

Signal word:Warning
Hazard statements: 301, 311, 314, 317, 331, 410
Precautionary statements: P260, P264, P270, P273, P280:

For full text of H- and P-phrases see section 16.
Responses:
IF SWALLOWED: Rinse mouth, DO NOT induce vomiting. Call a Poison Center or doctor/ physician if you feel unwell.
IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. See specific treatment in this MSDS. Remove/take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Flush with water as a precaution.

2.3 Other hazards None

SECTION 3
COMPOSITION / INFORMATION ON INGREDIENT

3.1	Mixtures				
	Ingredient	Formula	Conc. %	EC-No.	CAS-Nr.
	Methylisothiazolinone	C4H5NOS	0.02%	220-239-6	2682-20-4

SECTION 4
FIRST AID MEASURES

4.1 Description of first aid measures
After inhalation: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician. Show this MSDS.
After skin contact: Wash off with soap and plenty of water. Consult a physician. Show this MSDS.
After eye contact: Flush eyes with water as a precaution and consult a physician. Show this MSDS.
After swallowing: Never give anything by mouth to an unconscious person. Rinse mouth with water. Call a physician. Show this MSDS.

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

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5
FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing agents
Dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture
Hazardous decomposition products formed under fire conditions. Carbon oxides and sodium oxides.

5.3 Protective equipment
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6
ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate all personnel to safe areas.

6.2 Environmental precautions
Prevent further leakage or spillage is safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then soak up with an inert absorbent material. Dispose according to local regulations.

SECTION 7
HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

7.2 Conditions for safe storage, including incompatibilities
Keep container tightly closed in a dry and well ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8
EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Component: Contains no substances with occupational exposure limits.
Appropriate engineering controls: Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling product.

8.2 Personal protective equipment
Eye and face protection: Safety glasses with side shields conforming to local safety standards. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU).
Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body protection: Complete suit protection against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection: Where risk assessment shows nuisance exposure may be possible, use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection, use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143).

9.1 Information on basic physical and chemical properties

Appearance:	Liquid
Odour:	Odorless
Odour threshold:	Not available
Melting point/freezing point:	Not available
pH:	3.6 - 3.8
Partition coefficient: noctanol/water:	Not available
Flash point:	Not available
Water solubility:	Not available

Evaporation rate:	Not available
Upper/lower flammability or explosive limits:	Not available
Vapor density:	Not available
Vapor pressure:	Not available
Relative density:	Not available
Boiling point/Boiling range:	100°C
Auto igniting:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available
Flammability (solid, gas):	Not available

SECTION 10
STABILITY AND REACTIVITY

10.1 Reactivity
No known reactions under normal conditions of use.

10.2 Chemical Stability
Stable under normal recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to avoid
Direct sources of heat.

10.5 Incompatible materials
Strong oxidizers.

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. Carbon oxides and sodium oxides.

SECTION 11
TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity:

Oral:	no data available
Inhalation:	no data available
Dermal:	no data available
Other:	LD50 Intraperitoneal – Rat – 550 mg/kg
Skin corrosion/irritation:	no data available
Seriouseye damage/irritation:	no data available
Respiratory or skin sensitization:	no data available
Germ cell mutagenicity:	no data available
Carcinogenicity:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP or OSHA.
Reproductive toxicity:	no data available.
Information on likely routes of exposure:	no data available
Aspiration hazard:	no data available
Specific target organ toxicity (STOT) - single exposure:	no data available.
Specific target organ	no data available.

toxicity (STOT) - repeated exposure:	

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion:	Harmful if swallowed.
Skin contact:	Harmful if absorbed through skin. Causes skin irritation.
Eye Contact:	Causes eye irritation.

Delayed and immediate effects and also chronic effects from short - and long-term exposure:
To the best of our knowledge, the chemical, physical, and toxicological properties and affects have not been thoroughly investigated.

SECTION 12
ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Species	Type	Value	Exposition time (h)
Trout	LC50 (mg/l)	0,19	
Perch	LC50 (mg/l)	0,28	
Algae (Skeletonema costatum)	EC50 (mg/l)	0,003	
Algae (Selenastrum capricornutum)	EC50 (mg/l)	0,018	
Invertebrate (Daphnia magna)	EC50 (mg/l)	0,16	

12.2 Biodegradability

Substance	t1/2 anaerob (h)
Methylisothiazolinone	9,1

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Other adverse effects
No data available.

SECTION 13
DISPOSAL CONSIDERATIONS

13.1 Disposal methods
Dispose of waste in accordance to applicable national, regional, or local regulations. Contact a licensed professional waste disposal service to dispose of this material. Do not allow product to enter drains, water courses or the soil.

13.2 Contaminated packaging
Dispose in the same manner as unused product. Do not re-use empty containers.

SECTION 14
TRANSPORT INFORMATION

ADR/RID ADN/ADNR IMDG IATA/DOT ADR/DOT/:
Not classifed to the transport regulation

SECTION 15

REGULATORY INFORMATION

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

Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended. Implemented regulations to Act No. 350/2011 Coll., as amended The Waste Act as amended. Government Decree No. 361/2007 Coll., to regulate the conditions of occupational health and safety, as amended. Regulation of the European Parliament and the Council (EC) No. 1907/2006 (REACH). Regulation of the European Parliament and the Council (EC) No. 1272/2008 (CLP). Commission Regulation (EU) No. 830/2015.

15.2 Chemical safety assessment

Chemical safety assessment has not been carried out.

SECTION 16
OTHER INFORMATION

Full text of H- and P-phrases:

H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H412: Harmful to aquatic life with long lasting effects.
P260: Do not breathe dust or mist.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Note:

The safety data sheet contains data necessary for ensuring occupational health and safety and protection of the environment. The given data correspond to the current state of knowledge and experience and comply with valid legal regulations. The data cannot be considered a guarantee that the specific use of the product will be appropriate.

1.1 Product identifier

Trade name: Phosphoric Acid
Additional identification: solution with phosphoric acid concentration 0.73M
Relevant identified uses of the substance or mixture and uses advised against
Stop Solution for the ELISA kit.

1.2 Details of the supplier of the safety data sheet

SECTION 2
HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
H290, H302, H314
For full text of H-phrases see section 16.

2.2 Label elements

Labeling according Regulation (EC) No 1272/2008 (CLP)
Pictogram Signal Word Warning

GHS05, GHS07 

Hazard statement(s) H290, H302, H314
Precautionary statement(s) none
Supplemental hazard statement none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3
COMPOSITION/INFORMATION ON INGREDIENTS

3.1	Mixtures	
	Chemical characterization: Formula: Molecular weight:	Product does not burn H3PO4 98 g/mol

Ingredient	Conc. %	EINECS	CAS-Nr.	Index-Nr.
Phosphoric Acid	0.73M	231-633-2	7664-38-2	017-002-01-X

Classification according to regulation 1272/2008/EC:
Met. Corr. 1; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; H290, H302, H314, H318

For full text of H-phrases see section 16.

SECTION 4
FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5
FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture
Hydrogen chloride gas

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
The product itself does not burn.

SECTION 6
ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.
Evacuate personnel to safe areas.
For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7
HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Storage class (TRGS 510): Non-combustible, corrosive hazardous materials

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8
EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment Eye/face protection
Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands.
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator

with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9
PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	liquid form
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water Auto-ignition temperature	No data available
Decomposition temperature Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Other safety information	No data available

SECTION 10
STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Bases, Amines, Alkali metals, Metals, hexalithium disilicide, permanganates, e.g. potassium permanganate, Fluorine

10.6 Hazardous decomposition products
Other decomposition products - No data available

SECTION 11
TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects **Acute toxicity**
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available
Respiratory or skin sensitization
No data available
Germ cell mutagenicity No data available
Carcinogenicity
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrochloric acid)
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard No data available
Additional Information
RTECS: Not available
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12
ECOLOGICAL INFORMATION

12.1 Toxicity
No data available
12.2 Persistence and degradability
No data available
12.3 Bioaccumulative potential
No data available
12.4 Mobility in soil
No data available
12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
12.6 Other adverse effects
No data available

SECTION 13
DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product

SECTION 14
TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 1805 / IMDG: 1805 / IATA: 1805
14.2 UN proper shipping name
ADR/RID: PHOSPHORIC ACID / IMDG: PHOSPHORIC ACID / IATA: Phosphoric acid
14.3 Transport hazard class(es)
ADR/RID: 8 / IMDG: 8 / IATA: 8
14.4 Packaging group
ADR/RID: III / IMDG: III / IATA: III

14.5 Environmental hazards
ADR/RID: no / IMDG Marine pollutant: no / IATA: no

14.6 Special precautions for user
No data available

SECTION 15
REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

SECTION 16
OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage

Note:

The safety data sheet contains data necessary for ensuring occupational health and safety and protection of the environment. The given data correspond to the current state of knowledge and experience and comply with valid legal regulations. The data cannot be considered a guarantee that the specific use of the product will be appropriate.