

## Developing solution component

H2DON

(Cat. nr. HU0040017/HU0040057)

### SECTION 1: Identification of the substance/preparation and of the Company/Undertaking

#### 1.1. Product identifiers

Developing solution component

Product name

**H2DON**

Cat. Nr.

**HU0040017/HU0040057**

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

H2DON ELISA kits for the water-based quantitative analysis of deoxynivalenol.

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

Gold Standard Diagnostics Budapest Kft.

Fóti út 56/A.

1047 BUDAPEST

HUNGARY

Contact information: [www.goldstandarddiagnostics.com/contacts](http://www.goldstandarddiagnostics.com/contacts)

Phone: + 36 20 457 1204

Responsible person's E-mail address: [CustomerService.Bud@eu.goldstandarddiagnostics.com](mailto:CustomerService.Bud@eu.goldstandarddiagnostics.com)

#### 1.4. Emergency telephone number

Hungary: Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ)

1097 Budapest, Nagyvárad tér 2.

Tel.: +36 1 476 6464, +36 80 201 199

e-mail: [ettsz@nngyk.gov.hu](mailto:ettsz@nngyk.gov.hu)

For national Poison Centres in EU see: <https://poisoncentres.echa.europa.eu/appointed-bodies>.

### SECTION 2: Hazards Identification

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

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

Reproductive toxicity, Category 1B, H360D (Repr. 1B)

Eye Irritation, Category 2, H319 (Eye Irrit. 2)

For the full text of H-statements mentioned in this Section: see Section 16.

**2.2. Label elements**

**Hazard Pictograms:**



**Signal word:**

Danger

**Hazard statements:**

H319 – Causes serious eye irritation.

H360D – May damage the unborn child.

**Precautionary statements:**

P202 – Do not handle until all safety precautions have been read and understood.

P264 – Wash skin thoroughly after handling..

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.

P308 + P313 – IF exposed or concerned: Get medical advice/ attention.

P337 + P313 – If eye irritation persists: Get medical advice/ attention.

**Supplemental hazard information:**

-

**Substances contributing of hazard identification:**

2-pyrroldione

**Reduced Labeling (<= 125 ml)**

**Hazard Pictograms:**



**Signal word:**

Danger

**Hazard statements:**

H360D – May damage the unborn child.

**Precautionary statements:**

P202 – Do not handle until all safety precautions have been read and understood.  
 P280 – Wear protective gloves/protective clothing/eye protection/face protection.  
 P308 + P313 – IF exposed or concerned: Get medical advice/ attention.

**Supplemental hazard information:**

-

**Substances contributing of hazard identification:**

2-Pyrrolidinone

**2.3. Other hazards**

None.

See PBT and vPvB assesment results in section 12.5.  
 Endocrine disrupting properties : see sections 11.2. and 12.6.

**SECTION 3: Composition/information on ingredients**

**3.1.Substances**

Not applicable.

**3.2. Mixtures**

Component	CAS No.	EC-No.	Index-No.	REACH-No.	Concentration %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	H-statements	Special concentration limits/M-factor/ATE
2-Pyrrolidinone	616-45-5	210-483-1	-	-	1-<10	Eye Irrit. 2 Repr. 1B	H319 H360D	-
Urea hydrogen peroxide	124-43-6	204-701-4	-	-	<0,1	Ox. Sol. 3 Skin Irrit. 2 Eye Dam. 1	H272 H315 H318	-

For the full text of H-statements mentioned in this Section: see Section 16.  
 The product does not contain Substances of Very High Concern (SVHC).

**SECTION 4: First Aid Measures**

**4.1. Description of first aid measures**

**GENERAL INFORMATION:**

In case of accident or feeling sick immediately consult a physician. Show this safety data sheet or the product label to the doctor in attendance!

First aider: Pay attention for self-protection!

Remove contaminated clothing immediately.

Eye –washing and skin-washing facilities should be available at the workplace for specific and immediate treatment.

**FOLLOWING INGESTION:**

If chemical has been swallowed, wash out mouth with water. Do not swallow mouthwash. DO NOT induce vomiting. Do not administer anything if victim is unconscious. Get medical aid. Consult a doctor immediately.

**FOLLOWING INHALATION:**

There is a minimal risk of inhalation. In case there appear to be symptoms of exposure, supply fresh air. Monitor respiration. If breathing becomes difficult, consult a doctor and give oxygen. Get medical aid.

**FOLLOWING SKIN CONTACT:**

Immediately flush with large amounts of water and soap. Remove all contaminated clothing and wash them before reusing. In case of irritation consult a physician.

**FOLLOWING EYE CONTACT:**

Rinse thoroughly with plenty of water for at least 15 minutes. Insure adequate washing by keeping eyelids open with fingers. 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**

Treat symptoms..

**SECTION 5: Firefighting Measures**

**5.1. Extinguishing media**

Suitable extinguishing media : use agent most appropriate to extinguish surrounding fire. CO<sub>2</sub>, powder or water spray. Keep surrounding materials cool with water spray.

Unsuitable extinguishing media: For this mixture no limitations of extinguishing agents are given

**5.2. Special hazards arising from the mixture**

Not flammable.

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

Hazardous combustion products : carbon monoxide and carbon dioxide.

**5.3. Advice for firefighters**

In case of fire, if necessary, wear approved self-contained breathing apparatus and appropriate protective clothing.

Keep surrounding materials cool with water spray.

**SECTION 6: Accidental Release Measures**

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

**6.1.1. For non-emergency personnel**

The small supplied volumes and packaging insure minimal risk of accidental release. In case of spill, wear protective clothing as indicated in section 8. Ensure adequate ventilation.

6.1.2 For emergency personnel  
In case of spill, wear protective clothing as indicated in section 8. Ensure adequate ventilation.  
See sections 7 and 8.

**6.2. Environmental precautions**

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

**6.3. Methods and materials 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 sections 7, 8 and 13.

**SECTION 7: Handling and Storage**

**7.1. Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace  
Avoid skin and eyes contact. Avoid inhalation of vapour or mist. Wear appropriate personal protective equipment as specified in section 8.  
Remove contaminated clothing immediately. Wash hands and face after working with substance.  
Advice on protection against fire and explosion: Keep ignition sources away – Do not smoke

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

Keep products tightly sealed in their original containers. Avoid physical damage to containers. Do not expose to heat or direct light.  
Store away from foodstuffs  
Keep away from incompatible substances.

**7.3. Specific end use(s)**

See Section 1.2.

**SECTION 8: Exposure Controls/Personal Protection**

**8.1. Control parameters**

**Exposure limit values**

No exposure limits for components for European Union or Hungary.

DNEL: no information available

PNEC values: no information available

**8.2. Exposure controls**

5/2020. (II. 6.) ITM decree on the protection of the health and safety of workers exposed to chemical pathogenic factors, pursuant to Section 11(2) in the case of hazardous substances not regulated by limit values, the employer is obliged to reduce the level of exposure to the lowest level expected according to scientific and technical standards, at which level, according to the current state of science, the dangerous substance has no health-damaging effect. When using in an open system, use local exhaust where possible. If local extraction is not possible or is insufficient, adequate ventilation of the work area must be ensured.

**General protective and hygienic measures**

Adhere to instructions and good laboratory practice. Always avoid direct contact of the solution with eyes, skin and clothing. Avoid inhalation. Avoid prolonged or repeated exposure. Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.

Clean skin thoroughly immediately after handling the product

Handle in accordance with good industrial hygiene and safety practice. Caution is necessary to prevent skin contact, eye contact, cloth contact and spilling into the floor.

**Appropriate engineering controls**

Handle in a fume cupboard or under local exhaust ventilation. Have emergency shower and eye wash stations available

**Individual protection measures, such as personal protective equipment:**



**15) eye/face protection**

Safety eyewear or face protection complying with an approved standard (European Standard EN 166) should be used. Safety glasses with shields.

**b) skin protection**

- i. hand protection: Chemical-resistant, impervious gloves complying with an approved standard (European Standard EN374) should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. 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. The exact break through time has asked from the manufacturer of the protective gloves and has to be observed.
- ii. other: body protection: 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. Protective work clothing.

**c) respiratory protection**

Required when vapours/aerosols are generated.

Recommended filter typ: Filter A .

**d) thermal hazards**

None.

**Environmental exposure controls**

Do not let product enter drains.

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided above, is based upon intended, normal usage. If there is different than normal usage of the material it is advised to consult a safety specialist about the type of personal protective equipment and other actions that should be taken.

**SECTION 9: Physical and Chemical Properties**

**9.1 Information on basic physical and chemical properties**

Property	Value
Physical state:	liquid
Colour:	colourless
Odour:	n.a
Odour threshold:	No information available
Melting point/Melting range:	No information available
Initial boiling point and boiling range	No information available
Flammability	Not flammable
Upper/lower flammability or explosive limits	No information available
Flash point:	No information available
Auto Ignition temperature:	No information available
Decomposition temperature:	No information available
pH	No information available
Dynamic viscosity	No information available
Kinematic viscosity:	No information available
Solubility	miscible with water
Partition coefficient (n-Octanol/Water)	No information available
Vapour pressure at 20 °C:	No information available
Density and/or relative density:	No information available
Relative Vapour density:	No information available
Particle characteristics	Not applicable

**9.2. Other information**

**9.2.1. Information with regard to physical hazard classes**

Not classified.

**9.2.2. Other safety characteristics**

No information available.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data 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 information available.

**10.4. Conditions to avoid**

Avoid heat, flame, sparks, direct light.

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

No dangerous decomposition products known. In case of fire see Section 5.

**SECTION 11: Toxicological Information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:**

**Acute toxicity:**

No information available.

**Skin corrosion / irritation:**

No information available.

**Serious eye damage/irritation:**

Causes serious eye irritation.

**Respiratory or skin sensitization:**

No information available.

**Germ cell mutagenicity:**

No information available.

**Carcinogenicity:**

No information available.

**Reproductive toxicity:**

May damage the unborn child.

**STOT-single exposure:**

No information available.

**STOT-repeated exposure:**

No information available.

**Aspiration hazard:**

No information available.

**Relevant toxicological data:**

No information available.

**Information on likely routes of exposure:**

No information available.

**Symptoms related to the physical, chemical and toxicological characteristics:**

- Skin contact: No information available.
- Eye contact: Causes serious eye irritation.
- Inhalation: No information available
- Ingestion: No information available.
- Other: No information available.

**Delayed and immediate effects as well as chronic effects from short and long term exposure:**

May damage the unborn child.

**Interactive effects:**

No information available.

**Absence of specific data:**

No information available.

**Mixtures:**

No information available.

**Mixture versus substance information:**

No information available.

**11.2 Information on other hazards**

**Endocrine disrupting properties**

2-pyrrolidone is not listed. Urea hydrogen peroxide is not listed.

**Other information**

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

## SECTION 12: Ecological Information

**Do not allow product to reach surface water, waterways or soil.**

### 12.1 Toxicity

No information available.

### 12.2.Persistence and degradability

No information available.

### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

### 12.5.Results of PBT and vPvB assessment

PBT:Not applicable.

vPvB:Not applicable.

### 12.6.Endocrine disrupting properties

2-pyrrolidone is not listed. Urea hydrogen peroxide is not listed.

### 12.7.Other adverse effects

The components are furnished in volumes that do not represent hazard for the environment if used and disposed of correctly.  
Do not allow to enter waters, sewers or soil.

## SECTION 13: Disposal Considerations

### 13.1.Waste treatment methods

#### Product disposal:

Avoid release to the environment

Dispose of contents in accordance with local/regional/national/international regulations.

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

#### Packaging disposal:

Dispose of container in accordance with local/regional/national/international regulations.

Recommended Cleansing agents:

Water, if necessary together with cleansing agents.

#### Physical, chemical properties, which could influence waste management:

No information available.

#### Sewage disposal-relevant information:

Do not allow product to reach sewage system.

**SECTION 14: Transport Information**

Product is not classified as a dangerous good for transport

**ADR/RID**

**14.1 UN number or ID number:** -

**14.2 UN proper shipping name:** -

**14.3 Transport Hazard Class(es):** -

**14.4 Packing group:** -

**14.5 Environmental hazards:** -

**14.6 Special precautions for user:** -

**ADN:**

**14.1 UN number or ID number:** -

**14.2 UN proper shipping name:** -

**14.3 Transport Hazard Class(es):** -

**14.4 Packing group:** -

**14.5 Environmental hazards:** -

**14.6 Special precautions for user:** -

**IMDG**

**14.1 UN number or ID number:** -

**14.2 UN proper shipping name:** -

**14.3 Transport Hazard Class(es):** -

**14.4 Packing group:** -

**14.5 Environmental hazards:** -

**14.6 Special precautions for user:-**

**ICAO-TI/IATA-DGR**

**14.1 UN number or ID number:** -

**14.2 UN proper shipping name:** -

**14.3 Transport Hazard Class(es):** -

**14.4 Packing group:** -

**14.5 Environmental hazards:** -

**14.6 Special precautions for user:** -

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

## SECTION 15: Regulatory Information

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

#### EU Regulations:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

COMMISSION REGULATION (EU) No 348/2013 of 17 April 2013 amending Annex XIV to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)

#### 15.2. Chemical safety assessment:

Chemical safety assessment has not been carried out for this product.

## SECTION 16: Other information

#### Identification of changes

**Rev: 04 Revision and harmonization of the data sheet in accordance with applicable international legislation.**

#### Abbreviations and acronyms:

ATE: Acute Toxicity Estimate. PBT: persistent, bioaccumulative and toxic. vPvB: very persistent, very bioaccumulative. LD50 lethal dose, LC50 Lethal concentration. EC50 Effective concentration. EWC: European Waste Catalog. IARC: International Agency for Research on Cancer. RTECS: Registry of Toxic Effects of Chemical Substances. VOC: Volatile Organic Carbon. PNEC: Predicted no

effect concentration. LFL: Lower Inflammatory Limit. UFL: Upper Flammability Limit. LEL lower explosion limit. UEL: Upper explosion limit. STOT: Specific Target Organ Toxicity. LDLo Lethal dose, low. IC50: Inhibitory concentration. SVHC: Substances of very high concern. NOAEL: No-observed-adverse-effect level. LOAEL: Lowest-observed-adverse-effect level

**Full text of H-statements from section 2 and 3:**

H319 – Causes serious eye irritation.

H360D – May damage the unborn child.

**Precautionary statements:**

P202 – Do not handle until all safety precautions have been read and understood.

P264 – Wash skin thoroughly after handling..

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.

P308 + P313 – IF exposed or concerned: Get medical advice/ attention.

P337 + P313 – If eye irritation persists: Get medical advice/ attention..

**Further training advices:**

No information available.

**Recommended restrictions on use:**

Employment restrictions concerning juveniles must be observed.

This product is intended to be used for laboratory use only by technical staff trained in microbiological techniques. Classification and labelling have been performed according to CLP Regulations.

Read the Instructions for Use for further information on limitations of use.

**This Safety Data Sheet was prepared on the basis of documentation provided by the manufacturer and complies with the requirements of Regulation (EC) No. 878/2020**

The above information is based on data available and is believed to be correct. Since the information may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use and all persons receiving it shall make their own determinations of the effects, properties and protections which pertain to their particular conditions.

No representation, warranty or guarantee, expressed or implied (including a warranty of fitness or merchantability for a particular purpose), is made with respect to the material, the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of the material. Caution should be used in the handling and use of the material.

**IMPORTANT!** Read the safety data sheets before the use and disposal of this product. Insure that this information is understood by the operators exposed to this product. Use this product for the intended purpose as indicated in the instruction manual.

The above information is believed to be accurate and up to date. It is, however, liable to change due to the continuous modification of legislation and of standards and security data. Since the correct or incorrect use of this product is beyond our jurisdiction, this information cannot be expressed or implied to be comprehensive. Gold Standard Diagnostics Budapest cannot be held responsible for any improper use of the product, including those uses that could violate current patents or other copyrights. Only the user is responsible for the evaluation of this product's conformity and of the risks involved before use, and must adopt appropriate precautions towards self and other persons involved.

## Stop Solution component

H2DON

(Cat. nr. HU0040017/HU0040057)

### SECTION 1: Identification of the substance/preparation and of the Company/Undertaking

#### 1.1. Product identifiers

*Stop Solution component*

*Product name*

**H2DON**

*Cat. Nr.*

**HU0040017/HU0040057**

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

H2DON ELISA kits for the water-based quantitative analysis of deoxynivalenol.

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

Gold Standard Diagnostics Budapest Kft.

Fóti út 56/A.

1047 BUDAPEST

HUNGARY

Contact information: [www.goldstandarddiagnostics.com/contacts](http://www.goldstandarddiagnostics.com/contacts)

Phone: + 36 20 457 1204

Responsible person's E-mail adress: [CustomerService.Bud@eu.goldstandarddiagnostics.com](mailto:CustomerService.Bud@eu.goldstandarddiagnostics.com)

#### 1.4. Emergency telephone number

Hungary: Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ)

1097 Budapest, Nagyvárad tér 2.

Tel.: +36 1 476 6464, +36 80 201 199

e-mail: [ettsz@nngyk.gov.hu](mailto:ettsz@nngyk.gov.hu)

For national Poison Centres in EU see: <https://poisoncentres.echa.europa.eu/appointed-bodies>.

### SECTION 2: Hazards Identification

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

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

Corrosive to metals, Category 1, H290 (Corr. Met. 1)

Skin irritation, Category 2, H315 (Skin Irrit. 2)

Eye irritation, Category 2, H319 (Eye Irrit. 2)

For the full text of H-statements mentioned in this Section: see Section 16.

**2.2. Label elements**

**Hazard Pictograms:**



**Signal word:**

Warning

**Hazard statements:**

H290 – May be corrosive to metals.

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

**Precautionary statements:**

P234 – Keep only in original packaging.

P264 – Wash skin thoroughly after handling.

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

P302 + P352 – IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 – If skin irritation occurs: Get medical advice/attention.

**Supplemental hazard information:**

-

**Substances contributing of hazard identification:**

Sulphuric acid

**Reduced Labeling (<= 125 ml)**

**Hazard Pictograms:**

-

**Signal word:**

Warning

**Hazard statements:**

-

**Precautionary statements:**

-

**Supplemental hazard information:**

-

**Substances contributing of hazard identification:**

Sulphuric acid

**2.3. Other hazards**

None.

See PBT and vPvB assesment results in section 12.5.

Endocrine disrupting properties : see sections 11.2. and 12.6.

**SECTION 3: Composition/information on ingredients**

**3.1.Substances**

Not applicable.

**3.2. Mixtures**

Component	CAS No.	EC-No.	Index-No.	REACH-No.	Concentration	Classification according to Regulation (EC) No. 1272/2008 [CLP]	H-statements	Special concentration limits/M-factor/ATE
Sulphuric acid*	7664-93-9	231-639-5	016-020-00-8	-	9,9%	Skin Corr. 1A Met. Corr. 1	H290 H314	Skin Corr. 1A; H314: C ≥ 15 % Skin Irrit. 2; H315: 5 % ≤ C < 15 % Eye Irrit. 2; H319: 5 % ≤ C < 15 %

\*: Manufacturer's classification which differs from harmonised classification.

For the full text of H-statements mentioned in this Section: see Section 16.

The product does not contain Substances of Very High Concern (SVHC).

**SECTION 4: First Aid Measures**

**4.1. Description of first aid measures**

**GENERAL INFORMATION:**

In case of accident or feeling sick immediately consult a physician. Show this safety data sheet or the product label to the doctor in attendance!

First aider: Pay attention for self-protection!

Remove contaminated clothing immediately.

Eye –washing and skin-washing facilities should be available at the workplace for specific and immediate treatment.

**FOLLOWING INGESTION:**

If chemical has been swallowed, wash out mouth with water. Do not swallow mouthwash. DO NOT induce vomiting. Do not administer anything if victim is unconscious. Get medical aid.

**FOLLOWING INHALATION:**

There is a minimal risk of inhalation. In case there appear to be symptoms of exposure, supply fresh air. Monitor respiration. If breathing becomes difficult, consult a doctor and give oxygen. Get medical aid.

**FOLLOWING SKIN CONTACT**

immediately flush with large amounts of water and soap. Remove all contaminated clothing and wash them before reusing. In case of irritation consult a physician.

**FOLLOWING EYE CONTACT:**

Rinse thoroughly with plenty of water for at least 15 minutes. Insure adequate washing by keeping eyelids open with fingers. Consult a physician.

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

Causes skin irritation. Causes serious eye irritation

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

Treat symptoms.

**SECTION 5: Firefighting Measures**

**5.1. Extinguishing media**

Suitable extinguishing media : use agent most appropriate to extinguish surrounding fire. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Keep surrounding materials cool with water spray.

**5.2. Special hazards arising from the mixture**

Hazardous combustion products: sulphur oxides

**5.3. Advice for firefighters**

In case of fire, if necessary, wear approved self-contained breathing apparatus and appropriate protective clothing. Keep surrounding materials cool with water spray.

**SECTION 6: Accidental Release Measures**

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

**6.1.1. For non-emergency personnel**

The small supplied volumes and packaging insure minimal risk of accidental release. In case of spill, wear protective clothing as indicated in section 8. Ensure adequate ventilation.

**6.1.2 For emergency personnel**

In case of spill, wear protective clothing as indicated in section 8. Ensure adequate ventilation. See sections 7 and 8.

**6.2. Environmental precautions**

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

**6.3. Methods and materials 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 sections 7, 8 and 13.

**SECTION 7: Handling and Storage**

**7.1. Precautions for safe handling**

Avoid skin and eyes contact. Avoid inhalation of vapour or mist. Wear appropriate personal protective equipment as specified in section 8.

Remove contaminated clothing immediately. Wash hands and face after working with substance.

Advice on protection against fire and explosion: Normal measures for preventive fire protection

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

Keep products tightly sealed in their original containers. Avoid physical damage to containers. Do not expose to heat or direct light.

Store away from foodstuffs

Store away from incompatible substances (see section 10).

Unsuitable packaging material: Metal or light metal containers cannot be used.

**7.3. Specific end use(s)**

See section 1.2.

**SECTION 8: Exposure Controls/Personal Protection**

**8.1. Control parameters**

**Exposure limit values**

Components with workplace control parameters. (Source: GESTIS)

Substance Sulphuric acid  
CAS No. 7664-93-9  
Remarks mist

Country	Limit value - TWA			Limit value - STEL		
	ppm	mg/m <sup>3</sup>	F/cm <sup>3</sup>	ppm	mg/m <sup>3</sup>	F/cm <sup>3</sup>
European Union		<b>0,05</b>	(1)(2)			

General remarks:

Bold-type: Indicative occupational exposure limit value (IOELV)

Remarks:

(1) Thoracic fraction

(2) When selecting an appropriate exposure monitoring method, account should be taken of potential limitations and interferences that may arise in the presence of other sulphur compounds. -type:

Hungary 0,05

DNEL values (Sulphuric acid):

Workers

long-term exposition – local effects:

Inhalativ: DNEL 0.05 mg/m<sup>3</sup> (worker)

short-term exposition – local effects:

Inhalativ: DNEL 0.1mg/m<sup>3</sup> (worker)

PNEC values (Sulphuric acid):

PNEC

8.8 mg/L (sewage treatment plant)

0.002 mg/kg (sea water sediment)

0.25 mg/L (seawater)

0.002 mg/kg (fresh water sediment)

0.0025 mg/L (fresh water)

## 8.2. Exposure controls

5/2020. (II. 6.) ITM decree on the protection of the health and safety of workers exposed to chemical pathogenic factors, pursuant to Section 11(2) in the case of hazardous substances not regulated by limit values, the employer is obliged to reduce the level of exposure to the lowest level expected according to scientific and technical standards, at which level, according to the current state of science, the dangerous substance has no health-damaging effect. When using in an open system, use local exhaust where possible. If local extraction is not possible or is insufficient, adequate ventilation of the work area must be ensured.

### General protective and hygienic measures

Adhere to instructions and good laboratory practice.. Always avoid direct contact of the solution with eyes, skin and clothing. Avoid inhalation. Avoid prolonged or repeated exposure. Wash hands before breaks and at the end of work. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Caution is necessary to prevent skin contact, eye contact, cloth contact and spilling into the floor.

### Appropriate engineering controls

Handle in a fume cupboard or under local exhaust ventilation. Have emergency shower and eye wash stations available

### Individual protection measures, such as personal protective equipment:



#### a) eye/face protection

Safety eyewear or face protection complying with an approved standard (European Standard EN 166) should be used. Safety glasses with shields.

#### b) skin protection

- i. hand protection: Chemical-resistant, impervious gloves complying with an approved standard (European Standard EN374) should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. 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:  $\geq 0.11$  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

- ii. other: body protection: Protective work clothing.

c) respiratory protection

Respiratory protection is not required under normal and intended conditions of use.

d) thermal hazards

None.

**Environmental exposure controls**

Do not let product enter drains.

**Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided above, is based upon intended, normal usage. If there is different than normal usage of the material it is advised to consult a safety specialist about the type of personal protective equipment and other actions that should be taken.**

**SECTION 9: Physical and Chemical Properties**

**9.1 Information on basic physical and chemical properties**

Property	Value
Physical state:	liquid
Colour:	colourless
Odour:	n.a.
Odour threshold:	No information available
Melting point/Melting range:	No information available
Initial boiling point and boiling range	100°C
Flammability	Not flammable
Upper/lower flammability or explosive limits	No information available
Flash point:	No information available
Autoi Ignition temperature:	No information available
Decomposition temperature:	No information available
pH	~ 0,6 (25° C)
Dynamic viscosity	No information available
Kinematic viscosity:	No information available
Solubility	fully miscible with water
Partition coefficient (n-Octanol/Water)	No information available
Vapour pressure at 20 °C:	23 hPa
Density and/or relative density:	Density at 20 °C 1,03 g/cm <sup>3</sup>
Relative Vapour density:	No information available
Particle characteristics	Not applicable

**9.2. Other information**

**9.2.1. Information with regard to physical hazard classes**

May be corrosive to metals.

**9.2.2. Other safety characteristics**

No information available.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data available.

**10.2. Chemical stability**

Stable under the conditions for storage and handling described in the instructions. Keep in their original containers.

**10.3. Possibility of hazardous reactions:**

Reacts with alkali (lyes).

**10.4. Conditions to avoid**

Avoid heat, flame, sparks, direct light, incompatible materials.

**10.5. Incompatible materials**

Bases, halides, organic materials, carbides, nitrates, picrates, cyanides, chlorates, alkali halides, zinc salts, permanganates, hydrogen peroxide, azides, perchlorates, nitromethane, phosphorous, cyclopentadiene, cyclopentanone oxime, nitroaryl amines, hexalithium disilicide, phosphorous(iii) oxide, powdered metals.

**10.6. Hazardous decomposition products**

No data available. In case of fire see Section 5.

**SECTION 11: Toxicological Information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:**

**Acute toxicity:**

No information available.

**Skin corrosion / irritation:**

Stop Solution: Causes skin irritation.

**Serious eye damage/irritation:**

Stop Solution: Causes serious eye irritation.

**Respiratory or skin sensitization:**

No sensitizing effects known.

**Germ cell mutagenicity:**

No information available.

**Carcinogenicity:**

No information available.

**Reproductive toxicity:**

No information available.

**STOT-single exposure:**

Not classified as specific target organ toxicant.

**STOT-repeated exposure:**

Not classified as specific target organ toxicant.

**Aspiration hazard:**

Not classified as aspiration hazard.

**Relevant toxicological data:**

No information available.

**Information on likely routes of exposure:**

No information available.

**Symptoms related to the physical, chemical and toxicological characteristics:**

- Skin contact: Stop Solution: Causes skin irritation.
- Eye contact: Stop Solution: Causes serious eye irritation.
- Inhalation: Stop Solution: It may irritate mucous and upper respiratory tract.
- Ingestion: No specific information available.
- Other: No information available.

**Delayed and immediate effects as well as chronic effects from short and long term exposure:**

Stop Solution: See section 4.2.

**Interactive effects:**

No information available.

**Absence of specific data:**

No information available.

**Mixtures:**

No information available.

**Mixture versus substance information:**

No information available.

**11.2 Information on other hazards**

**Endocrine disrupting properties**

Sulphuric acid is not listed.

**Other information**

Toxicological properties have not been further investigated.

*Further information:* RTECS: WS5600000 (sulphuric acid).

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

**SECTION 12: Ecological Information**

**Do not allow product to reach surface water, waterways or soil.**

**12.1 Toxicity**

No information available.

**12.2. Persistence and degradability**

No information available.

**12.3 Bioaccumulative potential**

No information available.

**12.4 Mobility in soil**

No information available.

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

This product contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

**12.6. Endocrine disrupting properties**

Sulphuric acid is not listed.

**12.7. Other adverse effects**

The components are furnished in volumes that do not represent hazard for the environment if used and disposed of correctly.

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

**SECTION 13: Disposal Considerations**

**13.1. Waste treatment methods**

**Product disposal:**

Avoid release to the environment

Dispose of contents in accordance with local/regional/national/international regulations.

According to the European Waste Catalogue, Waste Codes are not product specific, but apply. Send surplus and non-recyclable solutions to a licensed disposal company. Application specific. Waste codes should be assigned by the user based on the application for which the product was used.

**Packaging disposal:**

Dispose of container in accordance with local/regional/national/international regulations.

**Physical, chemical properties, which could influence waste management:**

No information available.

**Sewage disposal-relevant information:**

Do not allow product to reach sewage system.

**SECTION 14: Transport Information**

**ADR/RID**

**14.1 UN number or ID number:** UN 2796

**14.2 UN proper shipping name:** UN 2796 SULPHURIC ACID

**14.3 Transport Hazard Class(es):** 8

**14.4 Packing group:** II

**14.5 Environmental hazards:** -

**14.6 Special precautions for user:** LQ:1 I; Tunnel restriction code: ( E)

**ADN:**

**14.1 UN number or ID number:** UN 2796

**14.2 UN proper shipping name:** UN 2796 SULPHURIC ACID

**14.3 Transport Hazard Class(es):** 8

**14.4 Packing group:** II

**14.5 Environmental hazards:** -

**14.6 Special precautions for user:** -

**IMDG**

**14.1 UN number or ID number:** UN 2796

**14.2 UN proper shipping name:** UN 2796 SULPHURIC ACID

**14.3 Transport Hazard Class(es):** 8

**14.4 Packing group:** II

**14.5 Environmental hazards:** Marine pollutant: no

**14.6 Special precautions for user:-**

**ICAO-TI/IATA-DGR**

**14.1 UN number or ID number:** UN 2796

**14.2 UN proper shipping name:** UN 2796 Sulphuric acid

**14.3 Transport Hazard Class(es):** 8

**14.4 Packing group:** II

**14.5 Environmental hazards:** -

**14.6 Special precautions for user:** -

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

**SECTION 15: Regulatory Information**

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

**EU Regulations:**

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

COMMISSION REGULATION (EU) No 348/2013 of 17 April 2013 amending Annex XIV to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)

REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/2006 and repealing Regulation (EU) No 98/2013

ANNEX I: Sulphuric acid 15 % (m/m) -40 % (m/m)

All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point within 24 hours of detection to the national contact point of the Member State where the disappearance or theft took place.

**15.2. Chemical safety assessment:**

Chemical safety assessment has not been carried out for this product.

**SECTION 16: Other information**

**Identification of changes**

**Rev: 04 Revision and harmonization of the data sheet in accordance with applicable international legislation.**

**Abbreviations and acronyms:**

ATE: Acute Toxicity Estimate. PBT: persistent, bioaccumulative and toxic. vPvB: very persistent, very bioaccumulative. LD50 lethal dose, LC50 Lethal concentration. EC50 Effective concentration. EWC: European Waste Catalog. IARC: International Agency for Research on Cancer. RTECS: Registry of Toxic Effects of Chemical Substances. VOC: Volatile Organic Carbon. PNEC: Predicted no effect concentration. LFL: Lower Inflammatory Limit. UFL: Upper Flammability Limit. LEL lower explosion limit. UEL: Upper explosion limit. STOT: Specific Target Organ Toxicity. LDLo Lethal dose, low. IC50: Inhibitory concentration. SVHC: Substances of very high concern. NOAEL: No-observed-adverse-effect level. LOAEL: Lowest-observed-adverse-effect level

**Full text of H-statements from section 2 and 3:**

H290 – May be corrosive to metals.

H314 – Causes severe skin burns and eye damage.

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

**Precautionary statements:**

P234 – Keep only in original packaging.

P264 – Wash skin thoroughly after handling.

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

P302 + P352 – IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 – If skin irritation occurs: Get medical advice/attention.

**Further training advices:** No information available.

**Recommended restrictions on use:**

This product is intended to be used for laboratory use only by technical staff trained in microbiological techniques. Classification and labelling have been performed according to CLP Regulations. Read the Instructions for Use for further information on limitations of use.

**This Safety Data Sheet was prepared on the basis of documentation provided by the manufacturer and complies with the requirements of Regulation (EC) No. 878/2020**

The above information is based on data available and is believed to be correct. Since the information may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use and all persons receiving it shall make their own determinations of the effects, properties and protections which pertain to their particular conditions.

No representation, warranty or guarantee, expressed or implied (including a warranty of fitness or merchantability for a particular purpose), is made with respect to the material, the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of the material. Caution should be used in the handling and use of the material.

**IMPORTANT!** Read the safety data sheets before the use and disposal of this product. Insure that this information is understood by the operators exposed to this product. Use this product for the intended purpose as indicated in the instruction manual.

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