

## Section 1: Identification of the substance/mixture and the company

### 1.1 Product identifier

**Tradename: HydroXan®**

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

**Identified use of substance** Oxidizer

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

#### Manufacturer/Supplier

**TCDO Produktionsgesellschaft mbH**

Franz-Sauer-St 44

A-5020 Salzburg

Tel: +43 662 434342-0

Fax: +43 662 434342-3

#### Information-providing field:

Mr. G. Weiss

Email: [office@wapotec.at](mailto:office@wapotec.at)

### 1.4 Emergency phone

+43 662 43 43 42-0

Available during office hours:

Office hours: MO - TH: 8.00 - 16.00, FR: 8.00 - 12.00

#### Toxicity information centre Vienna:

Phone: +43 1 406 43 43

Available: 0-24h



## Section 2: Hazards identification \*

### 2.1 Hazard classification of substance or mixture

 according to Directive (EC) N° 1272/2008

The product is not classified according to CLP regulation.

### 2.2 Identification labeling

 **according to Directive (EC) 1272/2008** – not applicable

**Hazard pictogram** – not applicable

**Signal word** – not applicable

**Hazard statements** – not applicable

### 2.3 Other hazards

Results of PBT and vPvB assessment

**PBT:** Not applicable for inorganic substances.

**vPvB:** not applicable for inorganic substances.



## Section 3: Composition/information on ingredients

### 3.2 Mixtures

#### Chemical characteristics

Tetrachlorodekaoxid-Komplex (TCDO-Anion), wässrige Lösung

Tetrachlorodekaoxid-Komplex (TCDO-Anion);

CAS:92047-76-2

ELINCS: 420-970-2

Registrierungsnummer: 01-0000016753-67-0001

 Dangerous ingredients [% (w/w)]: none



## Section 4: First-aid measures

### 4.1 Description of first-aid measures

#### General information

Seek medical advice if symptoms occur or in case of doubt.

If unconscious, apply stable lateral position and do not administer by mouth.

Remove contaminated clothing.

Immediately soak any clothing contaminated with product.

#### After inhalation

Normally no effects.

Fresh air supply, consult doctor in case of complaints.

#### After skin contact

Wash off with plenty of soap and water.

Remove contaminated clothing.

Seek medical treatment if symptoms occur.

#### After eye contact

Rinse opened eye for several minutes with running water. Remove any contact lenses if possible.

Continue rinsing. If symptoms occur, seek medical treatment.

#### After ingestion

Rinse mouth with cold water. As a first measure, the administration (100 - 150 ml) of a diluted (1-25%) ascorbic acid solution is recommended. Otherwise drink plenty of water. Consult a doctor immediately.

### 4.2 Most important symptoms and effects, acute and delayed

No further relevant information available.

### 4.3 Indications for immediate medical attention or special treatment needed

Depending on the patient's condition, symptoms and general condition should be assessed by the physician.



## Section 5: Fire-fighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use fire fighting measures that suit the environment.

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

Non-combustible.

### 5.3 Special protective actions for fire-fighters

#### Special protective equipment

Wear self-contained breathing apparatus.

Wear full protective suit.



## Section 6: Accidental release of material

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

Restricted access to affected area until cleanup is complete.

Wear protective equipment. Keep unprotected persons away.

Provide adequate ventilation.

Avoid contact with eyes and skin.

Avoid inhalation of vapor/aerosols.

### 6.2 Environmental precautions

Do not allow undiluted product to reach ground water, water bodies or sewage system.

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

Dilute with plenty of water and dispose of as wastewater (unless chemically technical or legal regulations conflict), high self-cleaning activity.

### 6.4 Reference to other sections

For safe handling information see Section 7.

For information on personal protective equipment see Section 8.

For disposal information see Section 13.



## Section 7: Handling and storage \*

### 7.1 Precautions for safe handling

When handling the diluted solution up to max. 10 g TCDO/l or dilute even further with water (1:100 to 1:1000) Use solutions no special measures or precautions are required during handling, storage, transport and in case of fire.

Follow legal protection and safety regulations.

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

## 7.2 Conditions for safe storage including any incompatibilities

### Requirements for storage rooms and container

Store according to local/regional/national/international regulations.

### Note on storage

Do not store together with acids.

Store separately from chlorine products.

### General information on storage conditions

Store in the original container.

Do not seal container gas-tight.

Protect from heat and direct sunlight.

**Recommended storage temperature:** +5°C to +35°C,

**Storage class:** 12

**VbF class:** Not applicable.

## 7.3 Specific end uses

No further relevant information available.



## Section 8: Exposure controls/personal protection \*

### 8.1 Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain relevant quantities of substances with occupational exposure limits that require monitoring.

DNEL values No data available.

PNEC values No data available.

### 8.2 Limitation and monitoring of exposure

#### Suitable technical control equipment

No further information, see section 7.

Technical measures and the use of appropriate work procedures take precedence over the use of personal protective equipment.

**Individual protective measures, for example personal protective equipment.**

#### General protective and hygienic measures:

Observe the usual precautions when handling chemicals.

Keep away from food, drink and animal feed.

Do not eat or drink while working. Wash hands before breaks and at the end of work.

Avoid contact with eyes and skin.

Avoid inhalation of mist/vapor/aerosol.

Remove all contaminated clothing immediately and wash before wearing again.

Body protective equipment should be selected in a work-specific manner depending on the concentrations and quantities of hazardous substances. The chemical resistance of the protective

agents should be clarified with their suppliers.

### **Respiratory protection**

In the presence of vapors/aerosols and/or inadequate ventilation, wear respiratory protection.

### **Hand protection**

Normally not required.

Preventive skin protection through use of skin protectant recommended.

### **Eye-/face protection**



Safety goggles  
 EN 166

### **Personal protection**

Protective work clothing.

The type of protective equipment must be selected depending on the concentration and quantity used at the workplace.

### **Environmental exposure controls**

Do not allow undiluted product or large quantities of it to reach ground water, bodies of water or sewage system.



## **Section 9: Physical and chemical properties \***

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

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Appearance                      | Liquid                            |
| Colour                          | Colourless                        |
| Odour                           | Odourless                         |
| Odour threshold                 | No data available.                |
| Melting point                   | -6 °C                             |
| Boiling point / boiling range   | Appr. 102 °C                      |
| Flammability                    | Not applicable                    |
| Lower and upper explosion limit |                                   |
| Upper explosion limit           | No data available.                |
| Lower explosion limit           | No data available.                |
| Flash point                     | Not applicable                    |
| Ignition temperature            | The product is not self-igniting. |
| pH-value at 20 °C               | Approx. 7.95 – 8.65               |

## Viscosity

|  |                    |
|--|--------------------|
| ☉ Kinematic viscosity                    | No data available. |
| ☉ dynamic                                | No data available. |
| ☉ Water solubility (20 °C)               | miscible           |
| ☉ Partition coefficient; n-octanol-water | No data available. |
| ☉ Vapour pressure (50 °C)                | ~ 5 mbar           |
| ☉ Auto ignition temperature              | No data available. |

## Density and/or relative density

|                   |                        |
|-------------------|------------------------|
| ☉ Density (20 °C) | 1,02 g/cm <sup>3</sup> |
| ☉ Vapor density   | No data available.     |

**9.2 Other data**

## Appearance

|        |        |
|--------|--------|
| ☉ Form | Liquid |
|--------|--------|

## Important health, safety and environmental information

|                        |                               |
|------------------------|-------------------------------|
| ☉ Explosive properties | The product is not explosive. |
|------------------------|-------------------------------|

## Change of state softening point or range

|                        |                    |
|------------------------|--------------------|
| ☉ Oxidizing properties | No data available. |
| ☉ Evaporation rate     | No data available. |

## Information on physical hazard classes

|  |                |
|--|----------------|
| ☉ Explosive substances/mixtures and articles containing explosives   | Not applicable |
| ☉ Flammable gases  | Not applicable |
| ☉ Aerosoles  | Not applicable |
| ☉ Oxidizing gases  | Not applicable |
| ☉ Gases under pressure   | Not applicable |
| ☉ Flammable liquids  | Not applicable |
| ☉ Flammable solids   | Not applicable |
| ☉ Self-decomposing substances and mixtures                           | Not applicable |
| ☉ Pyrophoric liquids   | Not applicable |
| ☉ Pyrophoric solids  | Not applicable |
| ☉ Self-heating substances and mixtures                               | Not applicable |
| ☉ Substances and mixtures which emit flammable gases in contact with | Not applicable |

water

- |                       |   |                             |
|-----------------------|---|-----------------------------|
| <input type="radio"/> | Oxidizing liquids   | Not applicable              |
| <input type="radio"/> | Oxidizing solids  | Not applicable              |
| <input type="radio"/> | Organic peroxides   | Not applicable              |
| <input type="radio"/> | Substances and mixtures corrosive to metals                         | May be corrosive to metals. |
| <input type="radio"/> | Desensitized substances/mixtures and articles containing explosives | Not applicable              |

## Section 10: Stability and reactivity

### 10.1 Reactivity

When stored and used as directed, no hazardous reactions are to be expected.

### 10.2 Chemical stability

No decomposition when using according to intended purpose.

### 10.3 Possibility of hazardous reactions

Reactions with metals, light metals: Hydrogen can be formed (danger of explosion!)  
 Violent reactions possible with acids

### 10.4 Conditions to avoid

Extreme temperatures

### 10.5 Incompatible materials

Acids  
 Chlorine products

### 10.6 Hazardous decomposition products.

Chlorine dioxide may be formed if the product is not used as intended and is contaminated with concentrated acids.

## Section 11: Toxicological information \*

### 11.1 Information on toxicological effects

#### Acute toxicity

Based on available data the classification criteria are not met.

| LD/LC50 values relevant for classification:              |      |  |
|--|------|--|
| CAS: 92047-76-2 Tetrachlorodekaoxid-Complex (TCDO-Anion) |      |  |
| Oral   | LD50 | 4,58 ml/kg/24 h (Rat)  |
| Dermal   | LD50 | (rabbit)<br>Negative. 10% solution does not cause conjunctival irritation after application. |

Corrosive/irritant to skin

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory/skin sensitization

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Specific target organ toxicity for single exposure

Based on available data the classification criteria are not met.

Specific target organ toxicity for multiple exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

Further information

No toxicological effects on skin cells (keratocytes).

According to evaluation key of the Etad-Sub-Committee for Toxicology

- classified as non-irritant (LC50(96h) > 1000 ppm)

-Concentrate very slight conjunctival irritation up to 24 h after application.

### 11.2 Information about other hazards

|  |
|--|
| <b>Endocrine disrupting properties</b> |
| None of the ingredients are included.  |

## Section 12: Ecological information \*

### 12.1 Toxicity

|   |   |
|---|---|
| <b>CAS: 92047-76-2 Tetrachlorodekaoxid-Komplex (TCDO-Anion)</b> |   |
| EC50 (72 h)   | ~ 430 mg/l (algae) ( <i>Scenedesmus subspicatus</i> ) |
| LC50 (96 h)   | > 1000 mg/l (Fish) ( <i>Onchorynchus mykiss</i> )     |
| EC50 (24 h)   | 1210 mg/l (daphnia) ( <i>Daphnia magna</i> )          |
| NOEC (72 h)   | > 80 mg/l (algae) ( <i>Scenedesmus subspicatus</i> )  |

### 12.2 Persistence and degradability

For inorganic substances, the methods for determining the biodegradability are not applicable.

### 12.3 Bioaccumulation potential



No further relevant information available.

#### 12.4 Mobility in soil

No further relevant information available.

#### 12.5 Results of PBT- and vPvB-assessment

PBT: For inorganic substances not applicable.

vPvB: For inorganic substances not applicable.

#### 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine-disrupting properties.

#### 12.7 Other adverse effects

**Other ecological notes:**

**General information:**

Water hazard class 1 (self-classification): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, bodies of water or sewage system.

### Section 13: Disposal considerations

#### 13.1 Waste treatment methods

**Recommendation:**

Dilute abundantly with water, can be discharged directly into wastewater (unless chemically technical or legal regulations conflict).

**Waste code number**

Not applicable

#### Uncleaned packaging

Recommendation: The packaging must be disposed of in accordance with the Packaging Ordinance. Packaging that cannot be cleaned must be disposed of in the same way as the substance.

### Section 14: Transport information

#### 14.1 UN-number oder ID-Number

**ADR/RID/IMDG/IATA**

Not applicable.

#### 14.2 Proper UN-shipping name

ADR/RID/ADN:

IMDG, IATA:

Not applicable.

#### 14.3 Transport hazard class

**ADR/RID/ADN, IMDG, IATA**

Class

Not applicable.

#### 14.4 Packing group

|  |                 |
|--|-----------------|
| <b>ADR/RID/ADN, IMDG, IATA</b>   | Not applicable. |
| <b>14.5 Environmental hazards:</b>   | Not applicable. |
| <b>14.6 Special precautions for the user</b>                                   | Not applicable. |
| <b>14.7 Carriage of bulk cargoes by sea in accordance with IMO instruments</b> | Not applicable. |
| UN „Model Regulation“  | Not applicable. |



## Section 15: Regulatory information \*

### 15.1 Safety-, health-, ambient- and legislation specific instructions for the substance or mixture

#### Directive 2012/18/EU

**Hazardous substances listed by name - Annex I** None of the ingredients are present.

**Regulation (EC) No 1907/2006 ANNEX XVII Restriction conditions:** 3

|   |
|---|
| <b>Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II</b> |
|---|

|                                       |
|---------------------------------------|
| None of the ingredients are included. |
|---------------------------------------|

#### Verordnung (EU) 2019/1148

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| <b>Annex I - RESTRICTED EXPORT SUBSTANCES FOR EXPLOSIVES (upper concentration limit for a permit under Article 5(3))</b> |
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|                                       |
|---------------------------------------|
| None of the ingredients are included. |
|---------------------------------------|

|   |
|---|
| <b>Annex II - REPORTABLE EXPORT SUBSTANCES FOR EXPLOSIVES</b> |
|---|

|                                       |
|---------------------------------------|
| None of the ingredients are included. |
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|  |
|--|
| <b>Regulation (EC) No. 273/2004 on drug precursors</b> |
|--|

|                                       |
|---------------------------------------|
| None of the ingredients are included. |
|---------------------------------------|

|  |
|--|
| <b>Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors.</b> |
|--|

|                                       |
|---------------------------------------|
| None of the ingredients are included. |
|---------------------------------------|

#### National regulations:

**Classification according to VbF:** not applicable

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

### 15.2 Chemical safety assessment

The mixture is not subject to material security test.



## Section 16: Other information \*

The information is based on the current state of our knowledge but does not constitute a warranty of product characteristics and does not establish a contractual legal relationship.

#### Data sheet issuing area:

UmEnA GmbH

<http://www.umena.at>

Email: office@umena.at

**Date of the previous version:** 14.12.2020

**Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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 Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (Devison of the American Chemical Society)

VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LC50: Lethal concentration, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

**\* Data changed compared to previous version**