

### Safety data sheet according to 1907/2006/EC, Article 31

Printing date 30.10.2023

Version number 5 (replaces version 4)

Revision: 30.10.2023

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Product name: Tannin Reagent 2**

· **Catalog number:** 56Z746598, 56L7465, 56L746530, 56U746530, SDT249

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**

· **Application of the substance / the preparation:** Reagent for water analysis

· **1.3 Details of the supplier of the safety data sheet**

· **Supplier:**

Tintometer GmbH  
Schleefstraße 8-12  
44287 Dortmund  
Made in Germany  
www.lovibond.com

phone: +49 (0)231 94510-0  
e-mail: sales@lovibond.com

The Tintometer Limited  
Lovibond® House  
Sun Rise Way  
Amesbury  
Wiltshire SP4 7GR  
United Kingdom

phone : +44 1980 664800  
e-mail: SDS@lovibond.uk

· **Informing department:**

e-mail: sds@lovibond.com  
Product Safety Department

· **1.4 Emergency telephone number:**

+44 1235 239670  
Languages: English

#### SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Met. Corr.1 H290 May be corrosive to metals.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

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

· **Hazard pictograms**



GHS05

· **Signal word** Warning

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#### Hazard statements

H290 May be corrosive to metals.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.

#### Precautionary statements

P280 Wear protective gloves/protective clothing/eye 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.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards No further relevant information available.

#### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

#### Determination of endocrine-disrupting properties

The product does not contain substances with endocrine disrupting properties.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Description: aqueous solution

#### Dangerous components:

CAS: 10102-25-7 EINECS: 233-820-4	Lithium sulphate monohydrate ⚠ Acute Tox. 4, H302	10-15%
CAS: 7664-38-2 EINECS: 231-633-2 Index No: 015-011-00-6 Reg.nr.: 01-2119485924-24-XXXX	phosphoric acid ⚠ Met. Corr. 1, H290; Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302 Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %	5-10%
CAS: 10213-10-2 EINECS: 236-743-4	Sodium wolframate dihydrate ⚠ Acute Tox. 4, H302	5-10%
CAS: 7647-01-0 EINECS: 231-595-7 Index No: 017-002-01-X Reg.nr.: 01-2119484862-27-XXXX	hydrochloric acid ⚠ Met. Corr. 1, H290; Skin Corr. 1B, H314; ⚠ STOT SE 3, H335 Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 % STOT SE 3; C ≥ 10 %	3-5%
CAS: 7726-95-6 EINECS: 231-778-1 Index No: 035-001-00-5	bromine ⚠ Acute Tox. 2, H330; ⚠ Skin Corr. 1A, H314; ⚠ Aquatic Acute 1, H400 (M=1)	<1%

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General information Instantly remove any clothing soiled by the product.

After inhalation Supply fresh air. Call a doctor.

#### After skin contact

Instantly rinse with water.

If skin irritation or rash occurs: Get medical advice/attention.

After eye contact Rinse opened eye for several minutes (at least 15 min) under running water. Then consult doctor.

#### After swallowing

Rinse out mouth and then drink 1-2 glasses of water.

Do not induce vomiting.

Seek medical treatment.

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

irritations

after inhalation:

mucosal irritations, cough, shortness of breath

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Possible damages: damage of respiratory tract  
after swallowing:

sickness  
vomiting  
diarrhoea

· **4.3 Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

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### SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

· **5.2 Special hazards arising from the substance or mixture**

The product is not combustible.

Formation of poisonous gases during heating or in fires.

Can be released in case of fire:

Sulphur oxides (SO<sub>x</sub>)  
Phosphorus oxides (P<sub>x</sub>O<sub>x</sub>)  
Hydrogen chloride (HCl)  
LiO<sub>x</sub>

Sodium oxide

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained breathing apparatus.

Wear full protective suit.

· **Additional information**

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Ambient fire may liberate hazardous vapours.

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### SECTION 6: Accidental release measures

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

· **Advice for non-emergency personnel:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

· **Advice for emergency responders:** Protective equipment: see section 8

· **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.

· **6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

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

Dispose of contaminated material as waste according to item 13.

· **6.4 Reference to other sections**

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

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### SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

· **Advice on safe handling:** Ensure good ventilation/exhaustion at the workplace.

· **Hygiene measures:**

Do not inhale dust / smoke / mist.

Avoid contact with the skin.

Avoid contact with the eyes.

Take off immediately all contaminated clothing.

Wash hands during breaks and at the end of the work.

Do not eat, drink or smoke when using this product.

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

· **Requirements to be met by storerooms and containers:**

Store in cool location.

Store only in the original container.

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- **Information about storage in one common storage facility:**

Store away from metals.

Do not store together with alkalis (caustic solutions).

- **Further information about storage conditions:**

Protect from heat and direct sunlight.

Protect from the effects of light.

Protect from humidity and keep away from water.

- **Recommended storage temperature:** 20°C +/- 5°C

- **7.3 Specific end use(s)** 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:**

**CAS: 7664-38-2 phosphoric acid**
WEL (Great Britain) Short-term value: 2 mg/m<sup>3</sup>Long-term value: 1 mg/m<sup>3</sup>IOELV (European Union) Short-term value: 2 mg/m<sup>3</sup>Long-term value: 1 mg/m<sup>3</sup>
**CAS: 7647-01-0 hydrochloric acid**
WEL (Great Britain) Short-term value: 8 mg/m<sup>3</sup>, 5 ppmLong-term value: 2 mg/m<sup>3</sup>, 1 ppm

(gas and aerosol mists)

IOELV (European Union) Short-term value: 15 mg/m<sup>3</sup>, 10 ppmLong-term value: 8 mg/m<sup>3</sup>, 5 ppm
**CAS: 7726-95-6 bromine**
WEL (Great Britain) Short-term value: 1.3 mg/m<sup>3</sup>, 0.2 ppmLong-term value: 0.66 mg/m<sup>3</sup>, 0.1 ppmIOELV (European Union) Long-term value: 0.7 mg/m<sup>3</sup>, 0.1 ppm

- **Regulatory information**

WEL (Great Britain): EH40/2020

IOELV (European Union): (EU) 2019/1831

- **Additional information:** IOELV = Indicative Occupational Exposure Limit

- **DNELs**

Derived No Effect Level (DNEL)

**CAS: 7647-01-0 hydrochloric acid**
Inhalative DNEL 15 mg/m<sup>3</sup> (Worker / acute / local effects)8 mg/m<sup>3</sup> (Worker / long-term / local effects)

- **Recommended monitoring procedures:**

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

- **PNECs**

Predicted No Effect Concentration (PNEC)

**CAS: 7647-01-0 hydrochloric acid**

PNEC 0.036 mg/l (Sewage treatment plant)

0.036 mg/l (Marine water)

0.045 mg/l (Aquatic intermittent release)

0.036 mg/l (Fresh water)

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **8.2 Exposure controls**

- **Engineering measures:**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.

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

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.

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- **Eye/face protection**  
Safety glasses  
Use safety glasses that have been tested and approved in accordance with government standards such as EN 166.
- **Hand protection**  
Protective gloves.  
Preventive skin protection by use of skin-protecting agents is recommended.  
After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**  
nitrile rubber, NBR  
Recommended thickness of the material:  $\geq 0.11$  mm
- **Penetration time of glove material**  
Value for the permeation: Level = 1 ( < 10 min )  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Other skin protection (body protection):** Protective work clothing.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Combination filter ABEK-P2
- **Environmental exposure controls** Do not allow product to reach sewage system or water bodies.

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **Physical state** Fluid
- **Form:** Solution
- **Colour:** Yellow
- **Odour:** Odourless
- **Odour threshold:** Not applicable.
- **Melting point/Freezing point:** Not determined.
- **Boiling point or initial boiling point and boiling range** Not determined.
- **Flammability** The product is not combustible.
- **Explosive properties:** Product is not explosive.
- **Lower and upper explosion limit**
- Lower: Not applicable.
- Upper: Not applicable.
- **Flash point:** Not applicable.
- **Auto-ignition temperature:** Not applicable.
- **Decomposition temperature:** Not determined.
- **pH at 20°C** < 1  
Strongly acidic
- **Kinematic viscosity** Not determined.
- **Solubility**
- **Water:** Fully miscible
- **Partition coefficient n-octanol/water (log value)** Not applicable (mixture).
- **Vapour pressure:** Not determined.
- **Density and/or relative density**
- **Density at 20°C:** 1.22 g/cm<sup>3</sup>
- **Relative density:** Not determined.
- **Relative gas density** Not determined.
- **Particle characteristics** Not applicable (liquid).

#### · 9.2 Other information

- **Information with regard to physical hazard classes**
- **Corrosive to metals** May be corrosive to metals.
- **Metals that are corroded by the substance or mixture** Information on incompatible materials can be found in Sections 7 and 10.
- **Other safety characteristics**
- **Oxidising properties:** none
- **Additional information**
- **Solids content:** 15 - 25 %
- **Solvent content:**
- **Organic solvents:** 0 %

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<b>Water:</b>	60-80 %
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### SECTION 10: Stability and reactivity

- **10.1 Reactivity** see section 10.3
- **10.2 Chemical stability** Stable at ambient temperature (room temperature).
- **10.3 Possibility of hazardous reactions**  
Corrosive action on metals  
Reacts with metals forming hydrogen (Danger of explosion in case of large amounts!)  
Reacts with alkali (lyes)
- **10.4 Conditions to avoid** Heating.
- **10.5 Incompatible materials:** metals
- **10.6 Hazardous decomposition products:** see section 5

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

#### · LD/LC50 values that are relevant for classification:

##### **CAS: 10102-25-7 Lithium sulphate monohydrate**

Oral	LD50	613 mg/kg (rat) (RTECS, anhydrous substance)
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##### **CAS: 7664-38-2 phosphoric acid**

Oral	LD50	1530 mg/kg (rat) (RTECS)
Dermal	LD50	2740 mg/kg (rabbit) (RTECS)
Inhalative	LC50	>0.85 mg/l/1h (rat) (RTECS)

##### **CAS: 10213-10-2 Sodium wolframate dihydrate**

Oral	LD50	1190 mg/kg (rat)
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##### **CAS: 7647-01-0 hydrochloric acid**

Inhalative	LC50	3124 ppm / 1h (rat) (RTECS,V, pure)
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##### **CAS: 7726-95-6 bromine**

Oral	LD50	2600 mg/kg (rat) (RTECS)
	LDo	>14 mg/kg (human) (RTECS)
Inhalative	LC50/4h	0.5 mg/l (ATE)

- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.

#### · Information on components:

##### **CAS: 7647-01-0 hydrochloric acid**

Irritation of skin	OECD 404	(rabbit: burns)
Irritation of eyes	OECD 405	(rabbit: burns)

- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

#### · Information on components:

##### **CAS: 7664-38-2 phosphoric acid**

Sensitisation	Patch test (human)	(negative) (IUCLID)
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##### **CAS: 7647-01-0 hydrochloric acid**

Sensitisation	OECD 406	(negative) (EPA OPP 81-6: Guinea pig maximisation test)
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- **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.

**Information on components:****CAS: 7664-38-2 phosphoric acid**

OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test) (IUCLID)
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- **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.
- **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

**Information on likely routes of exposure**

Exposure to hydrochloric acid is possible during occupational handling due to contact with the skin and inhalation of vapors. The main intake pathway is considered to be via the respiratory tract.

Gastrointestinal tract: Specific kinetic studies are not available. They are considered not necessary because gastric juice already contains a high concentration of hydrochloric acid which is physiologically conditioned. Following ingestion, local effects are therefore of priority. [GESTIS]

Main routes of absorption: In the workplace, phosphoric acid (P.) is probably absorbed preferentially by inhalation.

Due to the low vapour pressure of P., toxicologically relevant inhalation exposure is to be expected mainly when aerosols are released.[GESTIS]

**Additional toxicological information:**

The following applies to lithium compounds in general:

after absorption: CNS disorders, ataxia (impaired locomotor coordination) due to disturbed electrolyte balance

**CAS: 7664-38-2 phosphoric acid**

(source: GESTIS)

Main toxic effects:

Acute: Irritant to corrosive effect on the eyes, respiratory tract and skin, damage to the gastrointestinal tract after ingestion  
chronic: Irritant effect on the respiratory tract

**CAS: 7647-01-0 hydrochloric acid**

(source: GESTIS)

Main toxic effects

Acute: Irritation and corrosion to the eyes, airways and skin, danger of severe damage to the eyes and lungs, following ingestion, concentration-dependent damage to the gastrointestinal tract  
Chronic: Airway diseases, damage to the teeth, gastrointestinal disorders

Further Information:

The acute action of hydrochloric acid is based on the locally damaging effects on contacted tissues which are primarily dependent on the concentration. Following repeated contact with the skin, even diluted hydrochloric acid can cause skin damage (reddening, drying, fissures, dermatitis). The critical effect following repeated inhalative exposure is irritation to the respiratory tract.

**11.2 Information on other hazards**

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

**Other information**

Other dangerous properties can not be excluded.

According to the information available to us, the chemical, physical and toxicological properties of the substances mentioned in Chapter 3 have not been thoroughly investigated.

## SECTION 12: Ecological information

**12.1 Toxicity****Aquatic toxicity:****CAS: 7664-38-2 phosphoric acid**

EC50	100 mg/l/48h (Daphnia magna) (OECD 202)
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EC50	100 mg/l/72h (Desmodesmus subspicatus) (OECD 201)
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LC50	138 mg/l/96h (mosquitofish)
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**CAS: 10213-10-2 Sodium wolframate dihydrate**

EC50	89.4 mg/l/48h (Daphnia magna) (ECOTOX)
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<b>CAS: 7647-01-0 hydrochloric acid</b>	
EC50	20.5 mg/l/96h (bluegill) (OECD 203) (Merck)
· <b>Bacterial toxicity:</b>	
<b>CAS: 7664-38-2 phosphoric acid</b>	
EC50	>1000 mg/l /3h (activated sludge) (OECD 209)
· <b>Other information:</b>	
The following applies for lithium compounds in general: fish toxic from 100 mg/l, Daphnia toxic from 16 mg/l, plants toxic from 0,2 mg/l Toxic for fish: HCl > 25 mg/l	
· <b>12.2 Persistence and degradability</b> No further relevant information available.	
· <b>12.3 Bioaccumulative potential</b>	
Pow = n-octanol/wasser partition coefficient log Pow < 1 = Does not accumulate in organisms. log Pow 1-3 = Not worth-mentioning accumulating in organisms.	
<b>CAS: 7664-38-2 phosphoric acid</b>	
log Pow	-0.77 (.) (calculated)
<b>CAS: 7726-95-6 bromine</b>	
log Pow	1.03 (.) (calculated)
· <b>12.4 Mobility in soil</b> No further relevant information available.	
· <b>12.5 Results of PBT and vPvB assessment</b>	
This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.	
· <b>12.6 Endocrine disrupting properties</b> The product does not contain substances with endocrine disrupting properties.	
· <b>12.7 Other adverse effects</b>	
Depending on the concentration, phosphorus and/or nitrogen compounds may contribute to the eutrophication of water supplies. Forms corrosive mixtures with water even if diluted. Harmful effect due to pH shift. Avoid transfer into the environment.	
· <b>Water hazard:</b>	
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralised.	

### SECTION 13: Disposal considerations

· <b>13.1 Waste treatment methods</b>	
· <b>Recommendation</b>	
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to disposers of hazardous waste.	
· <b>European waste catalogue</b>	
16 05 07*	discarded inorganic chemicals consisting of or containing hazardous substances
· <b>Uncleaned packagings:</b>	
· <b>Recommendation:</b> Disposal must be made according to official regulations.	

### SECTION 14: Transport information

· <b>14.1 UN number or ID number</b>	
· <b>ADR, IMDG, IATA</b>	UN3264
· <b>14.2 UN proper shipping name</b>	
· <b>ADR</b>	3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, PHOSPHORIC ACID, SOLUTION)
· <b>IMDG, IATA</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, PHOSPHORIC ACID, SOLUTION)

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· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR</b>	
	
· <b>Class</b>	8 (C1) Corrosive substances.
· <b>Label</b>	8
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	8 Corrosive substances.
· <b>Label</b>	8
· <b>14.4 Packing group</b>	
· <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b>	
	Not applicable.
· <b>14.6 Special precautions for user</b>	
· <b>Warning:</b>	Warning: Corrosive substances.
· <b>Kemler Number:</b>	80
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	(SGG1) Acids
· <b>Stowage Category</b>	A
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	
	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>Transport category</b>	3
· <b>Tunnel restriction code</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

### SECTION 15: Regulatory information

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

##### · Poisons Act UK

##### · Regulated explosives precursors

The concentration of the substance is less than the stated mass percentage and should still be considered as reportable substance:

CAS: 7664-38-2	phosphoric acid	30%
CAS: 7647-01-0	hydrochloric acid	10%

##### · Regulated poisons

None of the ingredients is listed.

##### · Reportable explosives precursors

None of the ingredients is listed.

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<b>· Reportable poisons</b>	
None of the ingredients is listed.	
<b>· Regulation (EU) 2019/1148 on the marketing and use of explosives precursors</b> not regulated	
<b>· Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC)</b>	
None of the ingredients is listed.	
<b>· Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology:</b>	
None of the ingredients is listed.	
<b>· Regulation (EC) No 273/2004 on drug precursors</b>	
CAS: 7647-01-0	hydrochloric acid 3
<b>· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors</b>	
CAS: 7647-01-0	hydrochloric acid 3
<b>· Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:</b>	
None of the ingredients is listed.	
<b>· REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)</b>	
None of the ingredients is listed.	
<b>· LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)</b>	
None of the ingredients is listed.	
<b>· Substances of very high concern (SVHC) according to REACH, Article 57</b>	
This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).	
<b>· Substances of very high concern (SVHC) according to UK REACH</b>	
This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).	
<b>· Directive 2012/18/EU (SEVESO III):</b>	
<b>· Named dangerous substances - ANNEX I</b> None of the ingredients is listed.	
<b>· REGULATION (EC) No 1907/2006 ANNEX XVII</b> Conditions of restriction: 3	
<b>· Information about limitation of use:</b> Not required.	
<b>· 15.2 Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.	

## SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Training hints** Provide adequate information, instruction and training for operators.

· **Relevant phrases**

H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H330 Fatal if inhaled.  
H335 May cause respiratory irritation.  
H400 Very toxic to aquatic life.

· **Abbreviations and acronyms:**

OECD: Organisation for Economic Co-operation and Development  
STOT: specific target organ toxicity  
SE: single exposure  
RE: repeated exposure  
EC50: half maximal effective concentration  
IC50: half maximal inhibitory concentration  
NOEL or NOEC: No Observed Effect Level or Concentration  
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
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 (division of the American Chemical Society)  
DNEL: Derived No-Effect Level (UK REACH)

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# Safety data sheet

## according to 1907/2006/EC, Article 31

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**Product name: Tannin Reagent 2**

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PNEC: Predicted No-Effect Concentration (UK REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
SVHC: Substances of Very High Concern  
vPvB: very Persistent and very Bioaccumulative  
Met. Corr. 1: Corrosive to metals – Category 1  
Acute Tox. 4: Acute toxicity – Category 4  
Acute Tox. 2: Acute toxicity – Category 2  
Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

**Sources**

Data arise from safety data sheets, reference works and literature.

ECHA: European Chemicals Agency <http://echa.europa.eu>

ECOTOX Database

IUCLID (International Uniform Chemical Information Database)

RTECS (Registry of Toxic Effects of Chemical Substances )

GESTIS- Stoffdatenbank (Substance Database, Germany)

\* Data compared to the previous version altered.

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