

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**256032 TanniVer® 3 Tannin-Lignin Reagent**

Revision date: 31.01.2017

Product code: 256032

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

256032 TanniVer® 3 Tannin-Lignin Reagent

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Water analysis

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

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

**1.4. Emergency telephone number:**

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes serious eye damage.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

phosphoric acid; orthophosphoric acid ... %

hydrogen chloride

**Signal word:** Danger**Pictograms:**

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### Hazard statements

- H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

### Precautionary statements

- P234 Keep only in original packaging.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P363 Wash contaminated clothing before reuse.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P310 Immediately call a POISON CENTER/doctor.  
P390 Absorb spillage to prevent material damage.

### Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

### 2.3. Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

| CAS No     | Chemical name   |              |          | Quantity  |
|------------|---|--------------|----------|-----------|
|            | EC No   | Index No     | REACH No |           |
|            | Classification according to Regulation (EC) No. 1272/2008 [CLP] |              |          |           |
| 10102-25-7 | Lithium sulfate monohydrate                                     |              |          | 10 - 20 % |
|            | 233-820-4   |              |          |           |
|            | Acute Tox. 4; H302  |              |          |           |
| 10213-10-2 | Sodium tungstate  |              |          | 5-15 %    |
|            |   |              |          |           |
|            | Acute Tox. 4; H302  |              |          |           |
| 7664-38-2  | phosphoric acid; orthophosphoric acid ... %                     |              |          | 1 - 5 %   |
|            | 231-633-2   | 015-011-00-6 |          |           |
|            | Skin Corr. 1B; H314   |              |          |           |
| 7647-01-0  | hydrogen chloride   |              |          | 1 - 5 %   |
|            | 231-595-7   | 017-002-00-2 |          |           |
|            | Acute Tox. 3, Skin Corr. 1A; H331 H314                          |              |          |           |
| 10102-40-6 | Sodium molybdate  |              |          | 1 - 5 %   |
|            | 231-551-7   |              |          |           |
|            | Acute Tox. 4, Eye Irrit. 2; H332 H319                           |              |          |           |

Full text of H and EUH statements: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

- Take off contaminated clothing and shoes immediately.  
Show this safety data sheet to the doctor in attendance.

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#### After inhalation

Move to fresh air.

#### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.

Take off all contaminated clothing immediately.

Call a physician immediately.

#### After contact with eyes

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

#### After ingestion

Consult a physician.

Drink 1 or 2 glasses of water.

Do NOT induce vomiting.

Never give anything by mouth to an unconscious person.

Show this safety data sheet to the doctor in attendance.

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

Irritation and corrosion, Cough, Shortness of breath, Spasm.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

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

Fire may liberate hazardous vapours.

#### **5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

#### **Additional information**

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### SECTION 6: Accidental release measures

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

Use personal protective equipment. Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.

Do not breathe vapours, mist or gas.

#### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

#### **6.3. Methods and material for containment and cleaning up**

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).

Soak up with inert absorbent material.

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

#### **6.4. Reference to other sections**

13. Disposal considerations

### SECTION 7: Handling and storage

#### **7.1. Precautions for safe handling**

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### Advice on safe handling

Use only in well-ventilated areas.  
Avoid contact with skin and eyes.

### Advice on protection against fire and explosion

See also section 5

### Further information on handling

Observe label precautions.

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

#### Requirements for storage rooms and vessels

Keep in a dry, cool place.  
Keep away from heat and flame. Keep away from Metalle, Holz.

#### Hints on joint storage

None known.

### 7.3. Specific end use(s)

Reagent for analysis

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

| CAS No    | Substance                                 | ppm | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|-----------|---|-----|-------------------|-----------|---------------|--------|
| 7647-01-0 | Hydrogen chloride (gas and aerosol mists) | 1   | 2                 |           | TWA (8 h)     | WEL    |
|           |   | 5   | 8                 |           | STEL (15 min) | WEL    |
| 7664-38-2 | Orthophosphoric acid                      | -   | 1                 |           | TWA (8 h)     | WEL    |
|           |   | -   | 2                 |           | STEL (15 min) | WEL    |

#### Additional advice on limit values

None known.

### 8.2. Exposure controls

#### Appropriate engineering controls

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

#### Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  
Wash hands before breaks and after work.

#### Eye/face protection

Safety glasses with side-shields

#### Hand protection

Use barrier skin cream.  
Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact: Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

#### Skin protection

Remove and wash contaminated clothing before re-use.

#### Respiratory protection

Breathing apparatus only if aerosol or dust is formed. Recommended Filter type: ABEK-filter

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**Environmental exposure controls**

Keep away from Metalle, Holz.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|                 |           |
|-----------------|-----------|
| Physical state: | liquid    |
| Colour:         | yellow    |
| Odour:          | odourless |
| pH-Value:       | 1,0       |

**Changes in the physical state**

|  |                   |
|--|-------------------|
| Melting point:                           | not applicable    |
| Initial boiling point and boiling range: | 100 °C            |
| Sublimation point:                       | not applicable    |
| Softening point:                         | no data available |
| Pour point:                              | no data available |
| :  | no data available |
| Flash point:                             | no data available |
| Sustaining combustion:                   | No data available |

**Flammability**

|        |                |
|--------|----------------|
| Solid: | not applicable |
| Gas:   | not applicable |

**Explosive properties**

no data available

|                         |                   |
|-------------------------|-------------------|
| Lower explosion limits: | no data available |
| Upper explosion limits: | no data available |
| Ignition temperature:   | no data available |

**Auto-ignition temperature**

|        |                   |
|--------|-------------------|
| Solid: | no data available |
| Gas:   | no data available |

|                            |                   |
|----------------------------|-------------------|
| Decomposition temperature: | no data available |
|----------------------------|-------------------|

**Oxidizing properties**

no data available

|                                 |                   |
|---------------------------------|-------------------|
| Vapour pressure:                | no data available |
| Vapour pressure:                | no data available |
| Density (at 20 °C):             | 1,172 g/cm³       |
| Bulk density:                   | not applicable    |
| Water solubility:<br>(at 20 °C) | soluble           |

**Solubility in other solvents**

no data available

|                        |                   |
|------------------------|-------------------|
| Partition coefficient: | no data available |
| Viscosity / dynamic:   | no data available |
| Viscosity / kinematic: | no data available |
| Flow time:             | no data available |
| Vapour density:        | no data available |

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|                          |                   |
|--------------------------|-------------------|
| Evaporation rate:        | no data available |
| Solvent separation test: | no data available |
| Solvent content:         | no data available |

#### **9.2. Other information**

|                   |                |
|-------------------|----------------|
| Solid content:    | not applicable |
| no data available |                |

### **SECTION 10: Stability and reactivity**

#### **10.1. Reactivity**

May be corrosive to metals.

#### **10.2. Chemical stability**

Stable under recommended storage conditions.

#### **10.3. Possibility of hazardous reactions**

Reacts with the following substances: Strong bases Metals

#### **10.4. Conditions to avoid**

Extremes of temperature and direct sunlight.

#### **10.5. Incompatible materials**

Metals,  
woven fabric, Organic materials, Natural wood, Plywood

#### **10.6. Hazardous decomposition products**

The following may develop in event of fire: sulfur oxides., Acid chlorides

#### **Further information**

None known.

### **SECTION 11: Toxicological information**

#### **11.1. Information on toxicological effects**

##### **Acute toxicity**

No data is available on the product itself.

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| CAS No     | Chemical name                               |                  |         |        |        |
|------------|---|------------------|---------|--------|--------|
|            | Exposure route                              | Dose             | Species | Source | Method |
| 10102-25-7 | Lithium sulfate monohydrate                 |                  |         |        |        |
|            | oral  | LD50 613 mg/kg   | rat     |        |        |
| 10213-10-2 | Sodium tungstate                            |                  |         |        |        |
|            | oral  | ATE 500 mg/kg    |         |        |        |
| 7664-38-2  | phosphoric acid; orthophosphoric acid ... % |                  |         |        |        |
|            | dermal                                      | LD50 2740 mg/kg  | rabbit  | IUCLID |        |
| 7647-01-0  | hydrogen chloride                           |                  |         |        |        |
|            | inhalation vapour                           | ATE 3 mg/l       |         |        |        |
|            | inhalation aerosol                          | ATE 0,5 mg/l     |         |        |        |
| 10102-40-6 | Sodium molybdate                            |                  |         |        |        |
|            | oral  | LD50 4233 mg/kg  | rat     |        |        |
|            | dermal                                      | LD50 >2000 mg/kg | rat     |        |        |
|            | inhalation vapour                           | ATE 11 mg/l      |         |        |        |
|            | inhalation aerosol                          | ATE 1,5 mg/l     |         |        |        |

### Irritation and corrosivity

Causes skin and eye burns.

### Sensitising effects

Contains no substance or substances classified as sensitising.

### Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

### STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

### STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Aspiration hazard

No aspiration toxicity classification

### Specific effects in experiment on an animal

No data is available on the product itself.

### Additional information on tests

no data available

### Practical experience

### Observations relevant to classification

no data available

### Other observations

no data available

### Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12: Ecological information

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### 12.1. Toxicity

No data is available on the product itself.

Do not flush into surface water or sanitary sewer system.

| CAS No     | Chemical name                               |      |           |         |                  |        |
|------------|---|------|-----------|---------|------------------|--------|
|            | Aquatic toxicity                            | Dose | [h]   [d] | Species | Source           | Method |
| 7664-38-2  | phosphoric acid; orthophosphoric acid ... % |      |           |         |                  |        |
|            | Acute fish toxicity                         | LC50 | 138 mg/l  | 96 h    | Gambusia affinis |        |
| 10102-40-6 | Sodium molybdate                            |      |           |         |                  |        |
|            | Acute fish toxicity                         | LC50 | 7600 mg/l | 96 h    |                  |        |
|            | Acute crustacea toxicity                    | EC50 | 330 mg/l  | 48 h    |                  |        |

### 12.2. Persistence and degradability

No data is available on the product itself.

### 12.3. Bioaccumulative potential

No data is available on the product itself.

### 12.4. Mobility in soil

no data available

### 12.5. Results of PBT and vPvB assessment

no data available

### 12.6. Other adverse effects

No known effect.

### Further information

no data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

In accordance with local and national regulations.

#### Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### Waste disposal number of contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

### Land transport (ADR/RID)

#### 14.1. UN number:

UN 3264

#### 14.2. UN proper shipping name:

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
hydrochloric acid %, phosphoric acid; orthophosphoric acid %



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### 14.3. Transport hazard class(es):

8

### 14.4. Packing group:

II

Hazard label:

8



Classification code:

C1

Special Provisions:

274

Limited quantity:

1 L

Transport category:

2

Hazard No:

80

Tunnel restriction code:

E

### Other applicable information (land transport)

Not subject to transport regulations.

Excepted Quantities: E2

### Inland waterways transport (ADN)

#### Other applicable information (inland waterways transport)

Not tested

### Marine transport (IMDG)

#### 14.1. UN number:

UN 3264

#### 14.2. UN proper shipping name:

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

#### 14.3. Transport hazard class(es):

8

#### 14.4. Packing group:

II

Hazard label:

8



Special Provisions:

274

Limited quantity:

1 L

EmS:

F-A, S-B

### Other applicable information (marine transport)

Not subject to transport regulations.

Excepted Quantities: E2

### Air transport (ICAO-TI/IATA-DGR)

#### 14.1. UN number:

UN 3264

#### 14.2. UN proper shipping name:

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

#### 14.3. Transport hazard class(es):

8

#### 14.4. Packing group:

II

Hazard label:

8



Special Provisions:

A3 A803

Limited quantity Passenger:

0.5 L

IATA-packing instructions - Passenger:

851

IATA-max. quantity - Passenger:

1 L

IATA-packing instructions - Cargo:

855

IATA-max. quantity - Cargo:

30 L

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**Other applicable information (air transport)**

Not subject to transport regulations.

Excepted Quantities: E2

Passenger-LQ: Y840

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

no data available

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

**Other applicable information**

no data available

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

Revision: 31.01.2017

Safety datasheet sections which have been updated: 2, 11, 15

Revision: 22.09.2015

Safety datasheet sections which have been updated: 2, 11

Revision: 21.05.2015

Safety datasheet sections which have been updated: 2, 11

Revision: 03.02.2014

**Relevant H and EUH statements (number and full text)**

|      |  |
|------|--|
| H290 | May be corrosive to metals.              |
| H302 | Harmful if swallowed.                    |
| H314 | Causes severe skin burns and eye damage. |
| H319 | Causes serious eye irritation.           |
| H331 | Toxic if inhaled.                        |
| H332 | Harmful if inhaled.                      |

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*