

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

Printing date 17.09.2014

Version number 10

Revision: 17.09.2014

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

##### 1.1 Product identifier

Product name: **ZERO Verification / Reference Standard**

Catalog number: 215651, 205600 (Zero), 205610(Zero), 215650(Zero), 215660(Zero)

1.2 Relevant identified uses of the substance or mixture and uses advised against  
No further relevant information available.

Application of the substance / the preparation: Standard Solution for calibration purposes

1.3 Details of the supplier of the safety data sheet

##### Supplier:

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

phone: +49 (0) 231 945100  
E-Mail: sales@tintometer.de

##### Informing department:

e-mail: produktsicherheit@tintometer.de  
Product Safety Department

##### Contact for technical details:

Technical Department  
e-mail: technik@tintometer.de

##### 1.4 Emergency telephone number:

Poison Center Berlin, Germany  
phone: 0049-30 30686 790

#### SECTION 2: Hazards identification

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

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

The product is not classified as hazardous according to the CLP regulation.

##### Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void

Information concerning particular hazards for human and environment: No hazards to be particularly mentioned.

##### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

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

##### 3.2 Mixtures

Description: aqueous solution

Dangerous components: Void

REACH - Pre-registered substances All components are REACH pre-registered.

#### 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.

After skin contact Instantly rinse with water.

After eye contact

Rinse opened eye for several minutes under running water (at least 15 minutes). If symptoms persist, consult doctor.

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- **After swallowing**  
Rinse out mouth and then drink 1-2 glasses of water.  
In case of persistent symptoms consult doctor.
  - **4.2 Most important symptoms and effects, both acute and delayed:**  
after swallowing and inhalation:  
mucous membrane irritation
  - **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** No further relevant information available.
  - **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**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation
  - **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:**  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Absorb with liquid-binding material (sand, diatomite, universal binders).
  - **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
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** No special measures required.
  - **Information about protection against explosions and fires:** The product is not flammable
  - **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage**
  - **Requirements to be met by storerooms and containers:** Store only in unopened original containers.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**  
Protect from heat and direct sunlight.  
Protect from frost.  
Protect from the effects of light.  
Store in the dark.  
Protect from humidity and keep away from water.
  - **Recommended storage temperature:** 20 °C +/- 5 °C
  - **Storage class** 12
  - **7.3 Specific end use(s)** No further relevant information available.
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### \* SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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- **8.1 Control parameters**
  - **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:** The lists that were valid during the compilation were used as basis.
  - **8.2 Exposure controls**
  - **Personal protective equipment**
  - **General protective and hygienic measures**  
Wash hands during breaks and at the end of the work.  
Do not eat, drink or smoke while working.
  - **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
  - **Recommended filter device for short term use:** Filter A
  - **Protection of hands:**  
Avoid direct contact with the product/ the mixture by corresponding measures.  
Wear gloves in case of breakage / leakage.
  - **Material of gloves**  
nitrile rubber, NBR  
Recommended thickness of the material:  $\geq 0.11$  mm
  - **Penetration time of glove material**  
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.  
Value for the permeation: Level = 1 ( < 10 min )
  - **Eye protection:** Wear safety glasses in case of breakage / leakage.
  - **Body protection:** Protective work clothing.
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### \* SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · Appearance:

- |                  |                 |
|------------------|-----------------|
| Form:            | Fluid           |
| Colour:          | Colourless      |
| Odour:           | Light           |
| Odour threshold: | Not determined. |

pH-value at 20 °C:	4.3
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Melting point/Melting range:	Not determined
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Boiling point/Boiling range:	100 °C
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Flash point:	Not applicable
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Inflammability (solid, gaseous)	Not applicable.
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Danger of explosion:	Product is not explosive.
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##### · Critical values for explosion:

- |        |                 |
|--------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

Density at 20 °C	1 g/cm <sup>3</sup>
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Relative density	Not determined.
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Vapour density	Not determined.
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Evaporation rate	Not determined.
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Solubility in / Miscibility with Water:	Fully miscible
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Partition coefficient (n-octanol/water):	Not determined.
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##### · Viscosity:

- |            |                 |
|------------|-----------------|
| dynamic:   | Not determined. |
| kinematic: | Not determined. |

##### · Solvent content:

- |                   |        |
|-------------------|--------|
| Organic solvents: | 0.0 %  |
| Water:            | > 99 % |

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<b>· 9.2 Other information</b>	No further relevant information available.
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### SECTION 10: Stability and reactivity

- **Reactivity**
- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** see chapter 5

### \* SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Quantitative data on the toxicity of the preparation are not available.
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** irritating effect possible
- **Sensitisation:** No sensitizing effect known.
- **Additional toxicological information:**  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.  
The usual precautionary measures should be adhered to general rules for handling chemicals.
- **CMR effects (carcinogeny, mutagenicity and toxicity for reproduction)** no data available

### \* SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** Quantitative data on the ecological effect of this product are not available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **Behaviour in environmental systems:**
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Mixture: Generally not hazardous for water.
- **12.5 Results of PBT and vPvB assessment** no data available
- **12.6 Other adverse effects** No further relevant information available.

### \* SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

<b>· European waste catalogue</b>	
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16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08
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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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### SECTION 14: Transport information

· <b>14.1 UN-Number</b> · ADR, ADN, IMDG, IATA	Void
· <b>14.2 UN proper shipping name</b> · ADR, ADN, IMDG, IATA	Void
· <b>14.3 Transport hazard class(es)</b> · ADR, ADN, IMDG, IATA · Class	Void
· <b>14.4 Packing group</b> · ADR, IMDG, IATA	Void
· <b>14.5 Environmental hazards:</b> · Marine pollutant:	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Information about limitation of use:** Not required.
- **Water hazard class:** Generally not hazardous for water.
- **15.2 Chemical safety assessment:** 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.

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

EC50: effective concentration, 50 percent (in vivo)

ADR: Accord européen sur le transport 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 (division of the American Chemical Society)

- **Sources** Data arise from reference works and literature.
- **\* Data compared to the previous version altered.**