

### Safety Data Sheet acc. to OSHA HCS (HazCom 2012)

Printing date 08/15/2018

Reviewed on 08/03/2018

#### 1 Identification

- **Product identifier**
- **Trade name:** ZERO Verification / Reference Standard
- **Catalogue number:** 215651, 205600(Zero), 205610(Zero), 215650(Zero), 215660(Zero), 215640(Zero), 215670(Zero)
- **Application of the substance / the mixture:** Standard Solution for calibration purposes
- **Manufacturer/Supplier:**  
Tintometer Inc.  
6456 Parkland Drive  
Sarasota, FL 34243  
USA  
phone: (941) 756-6410  
fax: (941) 727-9654  
www.lovibond.us  
Made in Germany
- **Emergency telephone number:** + 1 866 928 0789 (English, French, Spanish)

#### 2 Hazard(s) identification

- **Classification of the substance or mixture** The product is not classified as hazardous.
- **Label elements**
- **GHS label elements** none
- **Hazard pictograms** none
- **Signal word** none
- **Hazard statements** none
- **Other hazards** No further relevant information available.

#### 3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** aqueous solution
- **Composition and Information on Ingredients:** Percent ranges are used due to the confidential product information.
- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

#### 4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes (at least 15 min) under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink 1-2 glasses of water.  
If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed**  
after swallowing and inhalation:  
mucous membrane irritation
- **Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

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## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** The product is not combustible.
- **Advice for firefighters**
- **Protective equipment:**
  - Wear self-contained respiratory protective device.
  - Wear fully protective suit.
- **Additional information**
  - Collect contaminated fire fighting water separately. It must not enter the sewage system.
  - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
  - Ambient fire may liberate hazardous vapours.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
- **Advice for non-emergency personnel:** Wear protective equipment. Keep unprotected persons away.
- **Advice for emergency responders:** Protective equipment: see section 8
- **Environmental precautions:**
  - Do not allow product to reach sewage system or any water course.
  - Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
  - Ensure adequate ventilation.
  - Absorb with liquid-binding material (sand, diatomite, universal binders).
  - Dispose contaminated material as waste according to item 13.
- **Reference to other sections**
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

## 7 Handling and storage

- **Precautions for safe handling**
- **Advice on safe handling:** No special precautions are necessary if used correctly.
- **Hygiene measures:**
  - The usual precautionary measures for handling chemicals should be followed.
  - Wash hands before breaks and at the end of work.
  - Do not eat, drink or smoke when using this product.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in unopened original receptacles.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
  - Protect from frost.
  - Protect from heat and direct sunlight.
  - Protect from exposure to the light.
  - Store in the dark.
  - Protect from humidity and water.
- **Recommended storage temperature:** 20°C +/- 5°C (approx. 68°F)
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **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 creation were used as basis.
- **Engineering measures:**
  - Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

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See item 7.

- **Personal protective equipment:**

- **Breathing equipment:** Use respiratory protective device against the effects of fumes/dust/aerosol.

- **Recommended filter device for short term use:** Filter A

- **Protection of hands:**

Avoid direct contact with the chemical/ the product/ the preparation by organizational measures.

Wear gloves in case of breakage / leakage.

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  $\leq 1$  (10 min)

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Wear safety glasses in case of breakage / leakage.

- **Body protection:** Protective work clothing

- **Limitation and supervision of exposure into the environment:** No further relevant information available.

## 9 Physical and chemical properties

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

- **Appearance:**

<b>Form / Physical state:</b>	Fluid
<b>Color:</b>	Colorless

· <b>Odor:</b>	Light
· <b>Odor threshold:</b>	Not determined.

· <b>pH-value at 20°C (68°F):</b>	4.3
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· <b>Melting point/freezing point:</b>	$\sim 0^{\circ}\text{C}$ ( $\sim 32^{\circ}\text{F}$ )
· <b>Initial boiling point and boiling range:</b>	$\sim 100^{\circ}\text{C}$ ( $\sim 212^{\circ}\text{F}$ )

· <b>Flash point:</b>	Not applicable.
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· <b>Flammability (solid, gas):</b>	Not applicable.
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· <b>Decomposition temperature:</b>	Not determined.
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· <b>Auto-ignition temperature:</b>	Product is not self-igniting.
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· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
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· <b>Flammability or explosive limits:</b>	
· <b>Lower:</b>	Not applicable.
· <b>Upper:</b>	Not applicable.

· <b>Oxidizing properties:</b>	none
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· <b>Vapor Pressure:</b>	Not determined.
· <b>Density at 20°C (68°F):</b>	0.99 g/cm <sup>3</sup> (8.26 lbs/gal)
· <b>Relative density:</b>	Not determined.
· <b>Vapor density:</b>	Not determined.
· <b>Evaporation rate:</b>	Not determined.

· <b>Solubility(ies)</b>	
· <b>Water:</b>	Fully miscible.

· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
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· <b>Viscosity:</b>	Not determined.
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· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	0 %
· <b>Water:</b>	> 99 %

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

- **Reactivity** see section "Possibility of hazardous reactions"
- **Chemical stability** Stable at ambient temperature (room temperature).
- **Possibility of hazardous reactions**  
Violent reactions possible with:  
The generally known reaction partners of water.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No further relevant information available.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>
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None of the ingredients is listed.
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· <b>NTP (National Toxicology Program)</b>
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None of the ingredients is listed.
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· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
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CAS: 50-00-0 formaldehyde
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- **Other information:** see section 8 / 15
- **Synergistic Products:** None
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):** The following statements refer to the mixture:
- **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.
- **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.
- **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.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Small amounts may be diluted with plenty of water (3 to 5 times the volume) and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

· UN-Number	
· DOT, IMDG, IATA	none
· UN proper shipping name	
· DOT, IMDG, IATA	none
· Transport hazard class(es)	
· DOT, IMDG, IATA	
· Class	none
· Packing group	
· DOT, IMDG, IATA	none
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.

### \*15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· <b>Section 355 (Extremely hazardous substances):</b>	None of the ingredients is listed.	
· <b>Section 313 (Specific toxic chemical listings):</b>	None of the ingredients is listed.	
· <b>TSCA (Toxic Substances Control Act):</b>	All ingredients are listed.	
· <b>Proposition 65</b>		
· <b>Chemicals known to cause cancer:</b>	CAS: 50-00-0 formaldehyde	
· <b>Chemicals known to cause reproductive toxicity for females:</b>	None of the ingredients is listed.	
· <b>Chemicals known to cause reproductive toxicity for males:</b>	None of the ingredients is listed.	
· <b>Chemicals known to cause developmental toxicity:</b>	None of the ingredients is listed.	
· <b>New Jersey Right-to-Know List:</b>	CAS: 50-00-0 formaldehyde	
· <b>New Jersey Special Hazardous Substance List:</b>	CAS: 50-00-0 formaldehyde	CA, CO, MU, F4
· <b>Pennsylvania Right-to-Know List:</b>	CAS: 50-00-0 formaldehyde	
· <b>Pennsylvania Special Hazardous Substance List:</b>	CAS: 50-00-0 formaldehyde	ES
· <b>EPA (Environmental Protection Agency)</b>	None of the ingredients is listed.	

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<b>· NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	
CAS: 50-00-0	formaldehyde

- **Information about limitation of use:** Not required.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Date of preparation / last revision** 08/15/2018 / 13
- **Abbreviations and acronyms:**
  - 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
  - ACGIH® - American Conference of Governmental Industrial Hygienists
  - A1 - Confirmed human carcinogen
  - A2 - Suspected human carcinogen
  - A3 - Confirmed animal carcinogen with unknown relevance to humans
  - A4 - Not classifiable as a human carcinogen
  - A5 - Not suspected as a human carcinogen
  - IARC - International Agency for Research on Cancer
  - Group 1 - Carcinogenic to humans
  - Group 2A - Probably carcinogenic to humans
  - Group 2B - Possibly carcinogenic to humans
  - Group 3 - Not classifiable as to carcinogenicity to humans
  - Group 4 - Probably not carcinogenic to humans
  - NTP - National Toxicology Program, U.S. Department of Health and Human Services
  - Group K - Known to be Human Carcinogens
  - Group R - Reasonably Anticipated to be Human Carcinogens
  - ADR: Accord européen sur le transport 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
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - 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)
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
- **Sources** Data arise from safety data sheets, reference works and literature.
- **\* Data compared to the previous version altered.**

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