1 Identification of substance

- **Product details**
  - **Trade name:** ZENOSTAR Color Zr Einfärbelösung A1-A4, B1-B4, C1-C4, D2-D4, brown, orange
  - **Application of the substance / the preparation** Auxiliary for manufacture of dental prostheses

- **Manufacturer/Supplier:**
  Wieland Dental + Technik GmbH & Co.KG
  Schwenninger Str. 13
  75179 Pforzheim
  Telefon + 49 (07231)-37050, Telefax + 49 (07231)-357959

- **Information department:** Abteilung Umweltschutz

- **Emergency information:**
  +49 (07231)-37050
  (Be kindly advised that this number can only be contacted at usual office hours.)

2 Composition/Data on components

- **Chemical characterization**
  - **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**
  - 7782-61-8 Eisennitrat-Nonahydrat
    - **Warning:** 3.2/2, 3.3/2A 1-5%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- **Hazard description:** Not applicable.

- **Information pertaining to particular dangers for man and environment:**
  The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**
  The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0 - 4)**
  - Health = 0
  - Fire = 0
  - Reactivity = 0

- **WHMIS-ratings (scale 0 - 4)**
  - Health = 0
  - Fire = 0
  - Reactivity = 0

- **GHS label elements** Void

4 First aid measures

- **General information:** No special measures required.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:**
  Rinse out mouth and then drink plenty of water.
  Seek immediate medical advice.
5 Fire fighting measures

- Suitable extinguishing agents:
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Protective equipment: No special measures required.

6 Accidental release measures

- Person-related safety precautions: Not required.
- Measures for environmental protection: Do not allow to enter sewers/surface or ground water.
- Measures for cleaning/collection:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Additional information: No dangerous substances are released.

7 Handling and storage

- Handling:
  Information for safe handling: No special measures required.
  Information about protection against explosions and fires: No special measures required.
- Storage:
  Requirements to be met by storerooms and receptacles: No special requirements.
  Information about storage in one common storage facility: Not required.
  Further information about storage conditions: None.

8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
- 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.
- Personal protective equipment:
  General protective and hygienic measures:
  The usual precautionary measures for handling chemicals should be followed.
  Breathing equipment: Not required.
- Protection of hands:
  Protective gloves
  - Material of gloves: Plastic gloves
  - 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.
  - Not suitable are gloves made of the following materials:
    Leather gloves
    Strong gloves
  - Eye protection: Goggles recommended during refilling.
  - Body protection: Protective work clothing
9 Physical and chemical properties

- **General Information**
  - **Form:** Fluid
  - **Color:** Different according to coloring
  - **Odor:** Product specific

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** Undetermined.

- **Flash point:** Not applicable.

- **Ignition temperature:** Not applicable.

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - **Oxidizing properties:** None

- **Density at 20°C (68°F):** 1.01 g/cm³

- **Solubility in / Miscibility with Water:** Fully miscible.

- **pH-value at 20°C (68°F):** 1.6-1.9

- **Solvent content:**
  - **Organic solvents:** 0.0 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Dangerous reactions:** Reacts with alkali (lyes).

- **Dangerous products of decomposition:**
  - Possible in traces.
  - Nitrogen oxides

11 Toxicological information

- **Acute toxicity:**

- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**
  - The product is not subject to classification according to internally approved calculation methods for preparations.
  - 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

· General notes:
  Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
  Water hazard class 1 (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

· Product:
  Recommendation: Must be specially treated adhering to official regulations.
· Uncleaned packagings:
  Recommendation: Disposal must be made according to official regulations.
  Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· DOT regulations:
· Hazard class: -
· Land transport ADR/RID (cross-border):
  ADR/RID class: -
· Maritime transport IMDG:
  IMDG Class: -
  Marine pollutant: No
· Air transport ICAO-TI and IATA-DGR:
  ICAO/IATA Class: -

15 Regulations

· Sara
  Section 355 (extremely hazardous substances):
  7697-37-2 nitric acid
· Section 313 (Specific toxic chemical listings):
  7697-37-2 nitric acid
· TSCA (Toxic Substances Control Act):
  7732-18-5 water, distilled, conductivity or of similarpurity
  7697-37-2 nitric acid
· Proposition 65
  - Chemicals known to cause cancer:
    None of the ingredients is listed.
  - Chemicals known to cause reproductive toxicity for females:
    None of the ingredients is listed.
  - Chemicals known to cause reproductive toxicity for males:
    None of the ingredients is listed.
  - Chemicals known to cause developmental toxicity:
    None of the ingredients is listed.
Trade name: ZENOSTAR Color Zr Einfärbelösung A1-A4, B1-B4, C1-C4, D2-D4, brown, orange

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.

- **Department issuing MSDS:** Abteilung Umweltschutz
- **Contact:** Herr Marcus Müller
- **Abbreviations and acronyms:**
  - 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
  - IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
  - ICAO: International Civil Aviation Organization
  - ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
  - GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)