

Section 1.- Identification of the substance/mixture and of the company

- **Identification of the product:** CdSe/ZnS Core/ Shell Quantum Dots 585 nm-Aqueous
CdSe/ZnS Core/ Shell Quantum Dots 615 nm-Aqueous
- **Chemical family:** Quantum Dots
- **Product name:** DRP-QDCORESHELL-585-AQU
DRP-QDCORESHELL-615-AQU
- **Use of the substance/preparation:** Research use only
- **Manufacturer/supplier identification:** Metrohm DropSens, S.L. Vivero de Ciencias de la Salud, Calle Colegio Santo Domingo de Guzmán, s/n, 33010 Oviedo, Asturias, Spain
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- **Emergency phone:** Metrohm DropSens, S.L. +34 985 27 76 85

Section 2.- Hazards identification

Not a hazardous substance according to Regulation CLP (EC) N° 1272/2008

Label elements:

The product does not need to be labelled in accordance with EC directives or national laws.

Section 3.- Composition/Information on ingredients

CdSe/ZnS Core/ Shell Quantum Dots 585 nm-Aqueous **CAS:** none
Concentration: 3.5 ± 0.1 µM

CdSe/ZnS Core/ Shell Quantum Dots 615 nm-Aqueous **CAS:** none
Concentration: 4.0 ± 0.2 µM

Section 4.- First aid measures

- **General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.
- **After skin contact:** Wash skin with soap and copious amounts of water.
- **After ingestion:** Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
- **After eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.
- **After inhalation:** Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

Section 5.- Fire-fighting measures

- **Suitable extinguishing media:** use water spray, carbon dioxide, foam or dry chemical.
- **Special hazards arising from the substance:** not known.
- **Special protective equipment for fire fighting:** Wear self contained breathing apparatus for fire fighting if necessary.
- **Further information:** Use water spray to cool unopened containers.

Section 6.- Accidental release measures

- **Person-related precautionary measures:** Use personal protective equipment. Avoid breathing vapours. Ensure adequate ventilation.
- **Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- **Methods and materials for containment and cleaning up:** Contain spillage and then with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.
- **Procedures for cleaning/absorption:** Keep in suitable, closed containers for disposal.

Section 7.- Handling and storage

- **Handling:** Use personal protective equipment as required. Wear personal protective equipment.
- **Storage:** Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

Section 8.- Exposure controls/personal protection

At this time, the limited evidence available suggests caution when potential exposures to nanoparticles may occur. Due to the limited information about health risks from nanomaterials, it is prudent to take steps for minimizing worker exposures. Research is still needed to understand the impact of nanotechnology on health, and to determine appropriate exposure monitoring and control strategies.

Exposure controls

General industrial hygiene practice

- Hand protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product.
- Eye protection Safety glasses with side-shields conforming to NIOSH (US) or EN166 (EU)
- Skin and body protection Choose body protection according to the amount and concentration of the dangerous substance at the work place. Handle with gloves. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374 derived from it.
- Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Section 9.- Physical and chemical properties

- **General information:** – Form: liquid
- **Important health, safety and environmental information:**
 - pH value: No data available
 - Boiling temperature: no data available
 - Flash point: no data available
 - Vapour pressure: not determined
 - Density: not determined
 - Solubility in water (20°C): Soluble
 - Solubility in other solvent: No data available

Section 10.- Stability and reactivity

- **Reactivity:** No data available
- **Chemical Stability:** Stable under normal conditions.

- **Possibility of hazardous reactions:** No data available.
- **Incompatible materials:** No data available.
- **Conditions to avoid:** Extreme temperature and direct sunlight.
- **Hazardous decomposition products:** Other decomposition products – no data available.
- **Further information:** Stable under recommended storage conditions.

Section 11.- Toxicological information

At this time, the limited evidence available suggest caution when potential exposures to nanoparticles may occur. Due to the limited information about health risks from nanomaterials, it is prudent to take steps for minimize exposures. Studies have indicated that low solubility nanoparticles are more toxic than larger particles on a mass for mass basis. There are strong indications that particles surface area and surface chemistry are responsible for observed responses in cell cultures and animals. There are indications that nanoparticles can penetrate through the skin or move from the respiratory system to other organs.

Section 12.- Ecological information:

To the best of our knowledge the ecological effects of this solution have not been thoroughly researched.

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Section 13.- Disposal considerations

- **Product:** Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose this material.
- **Contaminated packaging:** Empty containers may retain some products residues. Dispose of as used product.

Section 14.- Transport information

- **Road transport ADR/RID:** - UN-N°: N/A
- **Sea transport IMDG:** - UN-N°: N/A
- **Air transport IATA:** - UN-N°: N/A

Section 15.- Regulatory information

This safety datasheet has been revised to comply with the requirements establish in (EC) 453/2010.

Section 16.- Other information

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The contents and format of this MSDS are in accordance with EC 453/2010.

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