

## Material Safety Data Sheet

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### 1. Product & Company Identification

|                       |                                       |
|-----------------------|---------------------------------------|
| <b>Product:</b>       | DO electrolyte solution               |
| <b>Manufacturer:</b>  | Conrad Electronic SE                  |
| <b>Address:</b>       | Klaus-Conrad-Str. 1, D-92240 Hirschau |
| <b>Telephone:</b>     | +49 (0) 9604 / 40 - 8988              |
| <b>Date of issue:</b> | 27.11.2018                            |

#### Product Identifier

**Product Name:** DO electrolyte solution

**Chemical Name:** KCl and KOH solution

**Chemical Formula:** Not applicable

**Chemical Family:** Not applicable

**Hazard:** Practically non-toxic.

### 2. Hazards Identification

#### Emergency Overview:

**Appearance:** Clear

**liquid Odor:** None

#### Potential Health Effects:

**Eye Contact:** No effects are anticipated

**Skin Contact:** No effects are anticipated

**Skin Absorption:** No effects are anticipated

**Target Organs:** Not applicable

**Ingestion:** No Effects

**Classification of the substance or mixture:** Not a hazardous substance or mixture.

**GHS Label elements, including precautionary statements:** Not a hazardous substance or mixture.

**Hazards not otherwise classified (HNOC) or not covered by GHS:** none

#### Classification:

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

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### 3. Composition/Information On Ingredients

#### **Potassium Chloride**

CAS No.: 7440-09-7

Percent Range: < 1.5

Percent Range Units: weight/weight

Hazard: May cause irritation.

#### **Demineralized Water**

CAS No.: 7732-18-5

Percent Range: > 97 .9

Percent Range Units: weight/weight

Hazard: No effects anticipated.

#### **Potassium hydroxide**

CAS No.: 1310-58-3

Percent Range: < 0.5

Percent Range Units: weight/weight

Hazard: No effects anticipated.

#### **Other components. each**

CAS No.: Not applicable

Percent Range: < 0.1

Percent Range Units: volume/volume

Hazard: Any ingredient(s) of this product listed as "Other component(s)" is not considered a health hazard to the user of this product.

### 4. First Aid Measure

**Eye Contact:** Flush eyes with water. Call physician if irritation develops.

**Skin Contact (First Aid):** Wash skin with soap and plenty of water.

**Ingestion (First Aid):** Give large quantities of water. Call physician immediately.

**Inhalation:** None required.

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### 5. Firefighting Measures

**Flammable Properties:** Material will not burn.

**Method:** Not applicable

**Flammability Limits:**

Lower Explosion Limits: Not applicable

Upper Explosion Limits: Not applicable

**Autoignition Temperature:** Not applicable

**Hazardous Combustion Products:** Not applicable

**Fire/Explosion Hazards:** None reported

**Static Discharge:** None reported.

**Mechanical Impact:** None reported

**Extinguishing Media:** Use media appropriate to surrounding fire conditions

**Fire Fighting Instruction:** As in any fire, wear self-contained breathing apparatus pressure demand and full protective gear.

### 6. Accidental Release Measures

**Containment Technique:**

Stop all leaks. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Absorb spill with inert material (e.g. dry sand, earth).

**Clean-up Technique:**

Absorb spilled liquid with non-reactive sorbent material. Place material in a plastic bag. Mark bag 'Non-hazardous trash', and dispose of as normal refuse.

### 7. Handling And Storage

**Handling:** Avoid contact with eyes Wash thoroughly after handling.

**Storage:** Keep container tightly closed when not in use.

**Flammability Class:** Not applicable

### 8. Exposure Controls / Personal Equipment

**Engineering Controls:** Maintain general industrial hygiene practices when using this product.

**Personal Protective Equipment:** None

**Eye Protection:** Safety glasses with top and side shields

**Skin Protection:** Disposable latex gloves

**Inhalation Protection:** Adequate ventilation

**Precautionary Measures:** Avoid contact with: eyes Wash thoroughly after handling.

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### 9. Physical / Chemical Properties

|                               |  |
|-------------------------------|--|
| Appearance:                   | clear, liquid  |
| Physical State:               | Liquid   |
| Molecular Weight:             | Not applicable   |
| Odor:                         | None   |
| Vapor Pressure:               | Not determined   |
| Vapor Density (air = 1):      | Not determined   |
| Flash Point:                  | Not applicable   |
| Boiling Point:                | 100°C (212°F)  |
| Melting Point:                | 0°C (32°F)   |
| Specific Gravity (water = 1): | ~1.0   |
| Solubility:                   | Water: Soluble<br>Acid: Soluble<br>Other: Not determined |
| Metal Corrosivity:            | Not determined   |
| Explosion hazard:             | Not explosive  |

### 10. Stability And Reactivity

**Chemical Stability:** Stable when stored under proper conditions.

**Conditions to Avoid:** Extreme temperatures

**Reactivity/Incompatibility:** None reported

**Hazardous Decomposition:** None reported.

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### 11. Toxicological Information

**Product Toxicological Data: LD50:** None reported

**Acute toxicity:** None reported

**Skin Corrosion/Irritation:** None reported

**Serious Eye Damage/Irritation:** None reported

**Respiratory or Skin Sensitisation:** None reported

**Mutation Data:** None reported

**Reproductive Toxicity:** None reported

**Germ Cell Mutagenicity:** None reported

**Carcinogenicity:** None reported

**STOT-single Exposure:** Not classified as hazardous for single dose

**STOT-repeated Exposure:** Not classified as hazardous for repeated dose

**Aspiration Hazard:** Not classified as hazardous by aspiration

### 12. Ecological Information

**Product Ecological Information:** No ecological data available for this product

**Ingredient Ecological Information:** No ecological data available for the ingredients of this product

**Persistence and degradability:** No data available

**Bioaccumulation:** No data available

**Mobility:** No data available

### 13. Disposal Considerations

**EPA Waste ID Number:** None

**Special Instructions (Disposal):** Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain.

**Empty Containers:** Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.

**NOTICE (Disposal):** These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

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### 14. Transport Information

**D.O.T.:**

DOT Proper Shipping Name: Not Currently Regulated

DOT Hazard Class: NA

DOT Subsidiary Risk: NA

DOT ID Number: NA

DOT Packing Group: NA

**I.A.T.A.:**

IATA Proper Shipping Name: Not Currently Regulated

IATA Hazard Class: NA

IATA Subsidiary Risk: NA

IATA ID Number: NA

IATA Packing Group: NA

**I.C.A.O.:**

ICAO Proper Shipping Name: Not Currently Regulated

ICAO Hazard Class: NA

ICAO Subsidiary Risk: NA

ICAO ID Number: NA

ICAO Packing Group: NA

**I.M.O.:**

I.M.O. Proper Shipping Name: Not Currently Regulated

I.M.O. Hazard Class: NA

I.M.O. Subsidiary Risk: NA

I.M.O. ID Number: NA

I.M.O. Packing Group: NA

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### 15. Regulatory Information

#### U.S. Federal Regulations:

##### **O.S.H.A.:**

This product does not meet the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)

##### **E.P.A.:**

**S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370):** This product is not hazardous under 29 CFR.1910.1200 and therefore is not covered by Title III under SARA.

**S.A.R.A. Title III Section 313 (40 CFR 372):** This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

#### EU Regulations:

**Regulation (EC) No 1907/2006** of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)

**Regulation (EC) No 1272/2008** of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP), amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)

**Commission Regulation (EU) No 453/2010** of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance)

**Commission Regulation (EU) 2015/830** of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

#### International Inventories:

EINECS/ELINCS: Complies.

TSCA: Complies.

DSL/NDSL: Complies.

IECSC: Complies.

KECL: Complies.

AICS: Complies.

PICCS: Complies.

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### 16. Other Information

**Intended Use:** fill into DO probe.

**References:**

29 CFR 1900 - 1910 (Code of Federal Regulations - Labor) Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure Indices Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the REACH Regulation (EC) No 1272/2008 of the European Parliament and of the Council on CLP Regulation Commission Regulation (EU) No 453/2010 of the Council on the REACH Commission Regulation (EU) 2015/830 of the REACH

**Legend:**

NA - Not Applicable w/w - weight/weight

ND - Not Determined w/v - weight/volume

NV - Not Available v/v - volume/volume

CLP - European Regulation on classification, labelling and packaging of substances and mixtures

REACH - European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

TSCA- United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

**USER RESPONSIBILITY:**

Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

This information was compiled from current manufacturer's SDS's of the component parts of the product.

Disclaimer: The Manufacturer believes that the information contained in the Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all inclusive nor fully adequate in every circumstance. Also, the suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements.