

## Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 22.09.2010

Revision: 22.09.2010

### 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Name of chemical substance:** 350 (INT.SOL.POWDER FOR REF.ELECTRODE)
- **Article number:** 3200043623 (9003003400)
- **MSDS No:** 83
- **Application of the substance / the preparation** Reference solution
- **Manufacturer/Supplier:**  
HORIBA, Ltd.  
2 Miyano Higashi, Kisshoin,  
Minami-ku Kyoto, Japan, KYOTO  
601-8510 JAPAN  
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- **Further information obtainable from:** Water and Temperature Measurement R&D Dept.
- **Information in case of emergency:** During normal opening times: +81 75 313-8121

### 2 Hazards identification

- **Hazard description:** Not applicable.
- **Information concerning particular hazards for human 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 is according to the latest editions of the EU-lists, and extended by company and literature data.
- **GHS label elements**  
Safety data sheet available on request.

### 3 Composition/information on ingredients

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

· **Components:**

CAS: 7447-40-7	potassium chloride	>99,5%
EINECS: 231-211-8		

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

### 4 First aid measures

- **General information:** No special measures required.
- **After inhalation:**  
Remove the victim to fresh air, and make him blow his nose and gargle. Refer for medical attention.
- **After skin contact:** Wash the affected areas under running water.
- **After eye contact:**  
Immediately rinse the affected eyes with running water for at least 15 minutes, and refer for medical attention.
- **After swallowing:** Give the victim water. If necessary, get medical attention.

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### 5 Fire-fighting measures

- **Suitable extinguishing agents:** This product is noncombustible.
- **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/collecting:**  
Sweep up and place in a vessel. Flush residual area with water.  
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:**  
Keep receptacles tightly sealed.  
Keep away from heat and direct sunlight.  
No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Away from heat and moisture
- **Further information about storage conditions:** None.
- **Storage class:**
- **Class according to regulation on flammable liquids:** Void

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:**  
Provide good ventilation. Make available washbasin and eye wash near the work area.
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Suitable respiratory protective device recommended.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the

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resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

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

· **Eye protection:** Goggles recommended during refilling

· **Body protection:** Use protective suit.

### 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Liquid Powder
<b>Colour:</b>	White
<b>Odour:</b>	Odourless

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Self-igniting:** Product is not selfigniting.

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

· **Density:** Not determined.

· **Solubility in / Miscibility with water:** Soluble.

### 10 Stability and reactivity

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

· **Materials to be avoided:**

· **Dangerous reactions** No dangerous reactions known.

· **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

7447-40-7 potassium chloride

Oral	LD50	2600 mg/kg (rat)
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· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

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

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**· Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

### 12 Ecological information

**· Additional ecological information:****· General notes:**

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 packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· **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:** -

· **UN "Model Regulation":** -

· **Transport/Additional information:**

Cheak the containers are tightly sealed. Handle carefully so that they will not be damaged by falling or dropping. Keep away from water.

### 15 Regulatory information

**· Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

**· Special labelling of certain preparations:**

Safety data sheet available for professional user on request.

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- **National regulations:**
- **Classification according to VbF:** Void
- **Waterhazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.

### 16 Other information

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- **Department issuing MSDS:** Water and Temperature Measurement R&D Dept.
- **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
  - 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
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
- **Sources**
  - The MERCK Index 12th Edition
  - HANDBOOK OF ENVIRONMENTAL DATA ON ORGANIC CHEMICALS (Karel Verschuere VAN NOSTRAND REINHOLD)
  - Safety data sheet guidebook edited by the information center of the Society for Japan Chemical Industry
- **\* Data compared to the previous version altered.**
  - Data: Feb. 13, 1998
  - Revised: Dec. 13, 2009
  - Revised Sep. 22, 2010