

## Material Safety Data Sheet acc. to ISO/DIS 11014

Printing date 10/01/2012

Reviewed on 09/28/2012

### 1 Identification of the substance/mixture

**Product details**

- Trade name: Y051H (2000ppm Ca ion Std. solution)
- Part Number : 3200457727
- Application of the substance / the preparation Calcium ion standard solution

**Details of the supplier of the safety data sheet****Supplier:**

Horiba Instruments Inc.  
9755 Research Drive  
Irvine, CA 92618-4626  
USA

**Information Department:** Water Quality Department**Emergency Telephone Number:**

During Normal Business Hours: +800-446-7422 (949-250-4811)

During Holidays And After Business Hours: Chemtrec (800) 424-9300

### 2 Hazards identification

**Classification of the substance or mixture**

The product is not classified according to the Globally Harmonized System (GHS).

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Not applicable.

Void

**Information concerning particular hazards for human and environment:**

The product does not have to be labelled due to the calculation procedure of international guidelines.

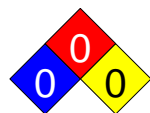
**Classification system:**

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

**Label elements****Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**Other hazards****Results of PBT and vPvB assessment**

PBT: Not applicable.

(Contd. on page 2)

USA

## Material Safety Data Sheet acc. to ISO/DIS 11014

Printing date 10/01/2012

Reviewed on 09/28/2012

**Trade name: Y051H (2000ppm Ca ion Std. solution)**

(Contd. of page 1)

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

· **Components:**

7447-40-7	potassium chloride	Acute Tox. 5, H303	Nearly 0.75%
10043-52-4	calcium chloride	⚠ Eye Irrit. 2, H319	Nearly 0.55%

### 4 First aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air or oxygen; call for doctor.
- **After skin contact:** Wash the affect 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.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** This product is noncombustible.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**  
Fire fighter should wear positive pressure self-contained breathing apparatus(SCBA) and full turnout gear.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** The protective equipment is worn.
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**  
Sweep up and place in a vessel. Flush residual area with water.
- **Reference to other sections** No dangerous substances are released.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Keep away from heat and direct sunlight.

(Contd. on page 3)

## Material Safety Data Sheet acc. to ISO/DIS 11014

Printing date 10/01/2012

Reviewed on 09/28/2012

**Trade name: Y051H (2000ppm Ca ion Std. solution)**

(Contd. of page 2)

- Keep receptacles tightly sealed.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **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:**
  - Keep receptacle tightly sealed.
  - Protect from heat and direct sunlight.
- **Storage class:**
- **Class according to regulation on flammable liquids:** Void
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:**
  - Provide good ventilation. Make available washbasin and eye wash near the work area.
- **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.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **Protection of hands:**



Protective gloves

- 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 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:** Safety glasses

(Contd. on page 4)

USA

## Material Safety Data Sheet acc. to ISO/DIS 11014

Printing date 10/01/2012

Reviewed on 09/28/2012

Trade name: Y051H (2000ppm Ca ion Std. solution)

(Contd. of page 3)

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

### 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Fluid
· <b>Color:</b>	Colorless
· <b>Odor:</b>	Odorless

· **Change in condition**

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

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

· **Flash point:** Not applicable.

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

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

· **Density:** Not determined.

· **Solubility in / Miscibility with**

· **Water:** Fully miscible.

· **Other information** No further relevant information available.

### 10 Stability and reactivity

· **Reactivity**

· **Chemical stability**

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

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

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

### 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Irritating effect.

· **Sensitization:** Not detected

· **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.

(Contd. on page 5)

## Material Safety Data Sheet acc. to ISO/DIS 11014

Printing date 10/01/2012

Reviewed on 09/28/2012

Trade name: Y051H (2000ppm Ca ion Std. solution)

(Contd. of page 4)

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

### 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:** Generally not hazardous for water

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:** After dissolve a lot of water. Discharge it into a drain.

· **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** Not applicable.

· **UN proper shipping name** Not applicable

· **Transport hazard class(es)** Not applicable

· **Packing group** Not applicable

· **ADR** --

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user** Not applicable.

(Contd. on page 6)

## Material Safety Data Sheet acc. to ISO/DIS 11014

Printing date 10/01/2012

Reviewed on 09/28/2012

**Trade name: Y051H (2000ppm Ca ion Std. solution)**

(Contd. of page 5)

- |  |  |
|--|--|
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.  |
| · <b>Transport/Additional information:</b>                                       | Cheak the containers are thgthly sealed. Handle carefully so that they will not be damaged by falling or dropping. Keep away from water. |
| · <b>UN "Model Regulation":</b>  | Not applicable   |

### 15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **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.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

(Contd. on page 7)

## Material Safety Data Sheet acc. to ISO/DIS 11014

Printing date 10/01/2012

Reviewed on 09/28/2012

**Trade name: Y051H (2000ppm Ca ion Std. solution)**

(Contd. of page 6)

- **National regulations:**
- **Classification according to VbF:** Void
- **Water hazard class:** Generally not hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

HORIBA, Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensives or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

HORIBA, Ltd. MAKES NO REPRESENTATION OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, HORIBA, Ltd. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

- **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)
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - NFPA: National Fire Protection Association (USA)
  - HMSIS: Hazardous Materials Identification System (USA)
  - VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)
- **Sources**
  - RTECS
    - A chemistry large dictionary (KIORITZ CORP. publication 1963)
    - Safety data sheet guidebook edited by the information center of the Society for Japan Chemical Industry
    - The MERCK index
  - **\* Data compared to the previous version altered.**
    - Date May. 9, 2012
    - Revised Sep. 28, 2012