

## PRODUCT SAFETY DATA SHEET

## 1 Product and corporate information

Product name : Space hygiene sanitization water Clean Method  
 Company name : M I C Co., Ltd.  
 Location : Horiguchi second Bldg 7F, 2-6 2-Chome,  
 Nihonbashiningiyouchu, Chuo-ku, Tokyo  
 Department : Sales department plan management  
 Drafter : Hajime Shimizu  
 TEL : 03-5623-2511  
 FAX : 03-5623-3077  
 Product cord : CM001,CM002,CM003,CM004,CM005,CM006  
 Emergency contact : 03-5623-2511  
 File No. : 001

## 2 Composition, component information

Single product or mixture : Mixture  
 Chemical name or common name : Water-diluted mixture of sodium hypochlorite and hydrochloric acid

## Components and contents

| Chemical name       | Content (%) | Chemical formula | CAS No.   | Gazette Bulletin NO. Kashinhou/Aneihou |
|---------------------|-------------|------------------|-----------|--|
| Sodium hypochlorite | 0.36        | Cl Na O          | 7681-52-9 | (1)-237                                |
| Hydrochloric acid   | 0.086       | HCl              | 7645-01-0 | (1)-215                                |
| Water               | 99.554      | H <sub>2</sub> O | —         | —                                      |

## 3 Summary of hazardous properties principal hazardous properties

## Principal hazardous Properties:

Noxiousness : Very low  
 Physical and chemical hazard : Very low fire hazard  
 Specific hazardous properties : Not applicable  
 Classification(Japan classification standard) : Not applicable

## 4 Emergency measures

Inhalation : No significant problem  
 Skin contact : No significant problem  
 Eye contact : Flush eyes with clean running water (preferably remove contact lenses).  
 Obtain medical attention in case of abnormal reaction or discomfort.  
 Swallowing : Rinse mouth with fresh water.  
 Brief information regarding major signs and symptoms : None.  
 Special protective equipment for emergency response : None.  
 Notes to physician : None.

## 5 Measures in case of fire

Extinguishing media : Product is non-combustible. Dry chemicals,carbon dioxide,foam fire extinguishers  
 Specific fire hazard : None.  
 Specific fire extinction : In case of nearby fire,relocate container away of fire if possible.

When relocation is not possible ,cool by spaying water on container and its proximity.

Special protective wear for fire : Wear suitable protective equipment (respiratory protection, protective shields, etc.)as necessary for fire extinction.

6 Measures in case of accidental release

personal precautions : None.  
 Environmental precautions : None.  
 Removal : Rinse with excess of water.

7 Precautions for handling and storing handling:

Precautions : Do not drink.  
 Safty precautions : Do not use for other than intended purpose. Use within abut 1 month after opening.

Storage:

Suitable storage conditions : Store in a dark place away from direct sunlight,out of reach of children.

Safe packaging materials : Non-transparent polyethylene,polynyl chloride,etc.are suitable, although metal corrosion is less compared to sodium hypochlorite dilution water (alkaline)or acid water.

8 Exposure prevention and protection and protective measures

Storage concentration:Sodium hypochlorite,hydrochloric acid : Not e established  
 Chlorine : 0.5ppm

Acceptable concentrations :

|              | Japan Society For Industrial Hygiene (2002 edition) | ACGIH(2002 edition) TLV-TWA(time average), TLV-stel(short-time exposure limit) |
|--------------|---|--|
| Sodium       | Not established                                     | Not established  |
| Hydrochloric | 5 ppm (C) / 7.5 mg /m <sup>3</sup>                  | 5ppm (C) / 7.5mg /m <sup>3</sup> (C)<br>5ppm / 7.5 mg /m <sup>3</sup>          |
| Chlorine     | 0.5ppm (C) / 1.5mg /m <sup>3</sup>                  | 0.5 ppm 1 ppm (C)  |

Protective gear : None

9 Physical and chemical properties

Physical state

Form : Transparent liquid  
 Color : Colorless  
 Odor : Faint chlorine odor  
 PH : 6.0 – 6.5

Specific temperature/tanperature range causing physical state change

Boiling point :  $\geq 100^{\circ}$   
 Inflammation point : Not applicable  
 Explosive properties : Not applicable  
 Vapor density : No data available  
 Density (g/cm<sup>3</sup>) : No data available  
 Solubility  
 Solubility for solvents : Soluble in water and alcohol.

10 Stability and reactivity

- Stability : Reverts to ordinary water upon long-term exposure to sunlight or ultraviolet rays. Decomposes gradually to ordinary water even at ordinary temperature.
- Reactivity : Contact with microbes or organic substances leads to destructive sterilization, with reversion to ordinary water.
- Conditions to avoid : Exposure to heat, sunlight, ultraviolet rays.
- Hazardous decomposition products : Hypochlorous acid, chlorine (trace).
- 11 Noxiousness data
- Acute toxicity : No observable abnormal reaction. (5)
- Local effects : Eye irritation test-not irritative in humans at 50-80 ppm. (5)  
 Temporary skin irritation test –Not irritative in humans at 50-80 ppm. (5)  
 Cumulative skin irritation test-Not irritative in humans at 50-80 ppm.
- Sensitivity : Sensitivity test – No sensitivity in humans. (5)
- Chronic toxicity/long-term toxicity : No data available
- Carcinogenicity : Hydrochloric acid is evaluated as Group 3 (not classifiable as carcinogenic in humans) by the IARC (International Agency For Research on Cancer). (3)
- Mutagenicity : Reverse toxicity test-Negative (5)
- Teratogenicity : No data available
- Reproductive toxicity : No data available
- Other : Cytotoxicity test (colony formation inhibition test) – No significant problem. (5)
- 12 Environmental impact data  
 No data available.
- 13 Precautions for disposal  
 Dilute with excess of water for disposal.
- 14 Precautions for transport  
 UN classification : Not classified as hazardous substance under definition according to UN recommendations.  
 Specific safety measures and conditions for transport : For transport, avoid direct sunlight, leakage from container, dropping, overturning or damaging during handling, and oversizing.
- 15 Regulatory Information (17)
- Marine pollution prevention law Enforcement Regulation  
 Schedule 1, Hazardous Substances,  
 Category C
- Food Sanitation law Section 6, Enforcement Statute No.3,  
 Schedule 2 (Sodium hypochlorite, hydrochloric acid)  
 Food additives (Designated additives)
- 16 Other data  
 Contact information :  
 Telephone number for customer inquiries : 03-5623-2511
- Reference
- (1) International Chemical Safety Card (ICSC)
  - (2) ACGIH : Documentation of the Threshold Limit Values and Biological Exposure Indices, 7th Ed.
  - (3) IARC Monograph
  - (4) Japan Society for Industrial Hygiene, "Permissible concentration and Other Recommendations"
  - (5) Food and Drug Center Report

- (6) Company Test Data
- (7) Chemical Substance Law Regulations SearchSystem,2003(CD-ROM) (ed.by JCIA),  
by Nihon Chemical Database Co., Ltd. (2003)
- (8) Japan Chemical Database Co., Ltd., "General Chemical Database"

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This data sheet has been prepared on the most recent publications regarding safe industrial handling of chemical products, but is not exhaustive.

These data are for informational purposes only, and no liability is implied.

Information may be added or updated as new data become available.

In case of use of chemical products in admixture with other chemicals or under special conditions, the user should make an evaluation of safety and take appropriate measures for handling, with acknowledgement of full responsibility.