Date of issue: 07/01/2014
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Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: Hydrochloric acid

Product code(SDS NO): 20010jis_E1-3

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.
Address: 1-6, Ohmano-Cho, Koshigaya, Saitama 343-0844, Japan
Division: Quality Assurance Department
Telephone number: +81-48-986-6161
FAX: +81-48-989-2787
e-mail address: shiyaku-t@junsei.co.jp

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Acute toxicity Oral: Category 3
Acute toxicity Inhalation: Category 2
Skin corrosion/irritation: Category 1
Serious eye damage/eye irritation: Category 1
Respiratory sensitization: Category 1
Specific target organ toxicity - single exposure: Category 1(respiratory system)
Specific target organ toxicity - repeated exposure: Category 1(tooth, respiratory system)

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment - acute hazard: Category 1

(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

Label elements

Signal word: Danger

HAZARD STATEMENT

Toxic if swallowed
Fatal if inhaled
Causes severe skin burns and eye damage
Causes serious eye damage
May cause allergy or asthma symptoms or breathing difficulties if inhaled
Causes damage to organs after single exposure
Causes damage to organs through prolonged or repeated exposure
Very toxic to aquatic life

PRECAUTIONARY STATEMENT

Prevention

Avoid release to the environment.
Do not breathe dust/mist.
In case of inadequate ventilation wear respiratory protection. (as specified by the manufacturer/supplier or the competent authority.)

Use only outdoors or in a well-ventilated area.
Wash contaminated parts thoroughly after handling.
Wear protective gloves, protective clothing or face protection.
Wear eye protection/face protection.
Do not eat, drink or smoke when using this product.

Response

Collect spillage.
Get medical advice/attention if you feel unwell.
Immediately call a POISON CENTER or doctor/physician.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal

Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name:Hydrogen chloride
Content(%):35.0～37.0
Chemical formula:ClH
Chemicals No, Japan:1-215
CAS No.:7647-01-0
MW:36.46
ECNO:231-595-7

Ingredient name:Water
Content(%):Residual quantity of the ingredient mentioned above
Chemical formula:H2O
CAS No.:7732-18-5
MW:18.0
ECNO:231-791-2

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical attention/advice if you feel unwell.
Immediately call a POISON CENTER or doctor/physician.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/shower.

If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor/physician.

Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

The product is non-flammable.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Cool container with water spray.

Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face peace operated positive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Ventilate area after material pick up is complete.

Wear proper protective equipment.

PUBLIC SAFTY: Ventilate closed spaces before entering.

Environmental precautions

Avoid release to the rivers, lakes, ocean and groundwater.

Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

All equipment used when handling the product must be grounded.

Preventive measures for secondary accident

Collect spillage.

Stop leak if you can do it without risk.

Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/mist.

(Protective measures against fire and explosion)

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Exhaust/ventilator

Exhaust/ventilator should be available.

Safety treatments

Avoid contact with skin.

Avoid contact with eyes.

Avoid breathing dust or mist.

Safety Measures/Incompatibility

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities

Recommendation for storage

Store in a well-ventilated place. Keep container tightly closed.

Keep cool. Protect from sunlight.

Store locked up.

8. Exposure controls/personal protection

Control parameters

No control value data available in MHLW

Adopted value

(Hydrogen chloride)

JSOH(2014) (ceiling limit) 2ppm; 3.0mg/m3

ACGIH(2000) STEL: C 2ppm (URT irr)

OSHA-PEL

(Hydrogen chloride)

C 5ppm, 7mg/m3

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

Individual protection measures

Respiratory protection

Wear respiratory protection.

Wear positive pressure self-contained breathing apparatus (SCBA).

Hand protection

Wear protective gloves. Recommended material(s): neoprene, nitrile, butyl rubber, viton, PVC, impermeable or chemical resistant rubber

Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

Eye protection

Wear chemical safety goggle.

Wear eye/face protection.

Safety and Health measures

Wash ... thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties

Appearance: Liquid

Color: Colorless clear

Odor: Irritant odor

pH: pH <= 2(Strong acidic)

Phase change temperature

Initial Boiling Point/Boiling point: 108℃

Melting point/Freezing point data N.A.

Decomposition temperature data N.A.

Flash point data N.A.

Auto-ignition temperature data N.A.

Explosive properties data N.A.

Vapor pressure data N.A.

Vapor density data N.A.

Specific gravity/Density: 1.18(20℃)

Solubility

Solubility in water: Miscible

n-Octanol /water partition coefficient data N.A.

10. Stability and Reactivity

Reactivity

Runaway polymerization will not occur.

Chemical stability

Stable under normal storage/handling conditions.

Corrosive fumes emitted on contact with air.

Possibility of hazardous reactions

It reacts violently with bases and is corrosive.

Reacts violently with oxidants. This produces toxic gas.

Attacks many metals in the presence of water. This produces flammable/explosive gas.

Conditions to avoid

Contact with incompatible materials.

Heat.

Incompatible materials

Bases, Oxidizing agents, Reducing agents, Metals, Combustible substances

Hazardous decomposition products

Chlorine, Hydrogen.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Hydrogen chloride) rat LD50 =238 mg/kg (SIDS, 2009)

Acute toxicity (Inhalation)
[GHS Cat. Japan, base data]
(Hydrogen chloride) mist : rat LC50=0.42 mg/L/4hr （SIDS, 2009）
Labor standard law, Japan; Toxic
Hydrogen chloride
Irritant properties
Skin corrosion/irritation
[GHS Cat. Japan, base data]
(Hydrogen chloride) rabbit/mouse/rat/human : corrosive (SIDS, 2009)
Serious eye damage /irritation
[GHS Cat. Japan, base data]
(Hydrogen chloride) rabbit : corrosive (SIDS, 2002)
Sensitization
Respiratory sensitization
[GHS Cat. Japan, base data]
(Hydrogen chloride) cat.1; Occupational/Environmental Allergy Society, Japan
Germ cell mutagenicity
[GHS Cat. Japan, base data]
(Hydrogen chloride)
Reverse-mutation assay in bacteria (Ames test) :Negative（SIDS, 2009)
Carcinogenicity
(Hydrogen chloride)
IARC-Gr.3 : Not Classifiable as a Human Carcinogen
ACGIH-A4(2000) : Not Classifiable as a Human Carcinogen
No reproductive toxicity data available
Delayed and immediate effects and also chronic effects from short- and long-term exposure
STOT
STOT-single exposure
[cat.1]
[Japan published data]
(Hydrogen chloride) respiratory apparatus/system (ACGIH, 2003)
STOT-repeated exposure
[cat.1]
[Japan published data]
(Hydrogen chloride) teeth; respiratory apparatus/system (SIDS, 2002)
No Aspiration hazard data available
Additional data
There are no data available on the preparation itself.

12. Ecological Information

Ecotoxicity
Aquatic toxicity
Very toxic to aquatic life
Aquatic acute toxicity component(s) data
[GHS Cat. Japan, base data]
(Hydrogen chloride) Crustacea（Daphnia magna） EC50=0.492mg/L/48hr （SIDS, 2005）
Water solubility
(Hydrogen chloride) 67 g/100 ml (30℃) (ICSC, 2000)
No Persistence and degradability data available
Bioaccumulative potential
(Hydrogen chloride) log Pow=0.25 (ICSC, 2000)
Additional information
There are no data available on the preparation itself.

13. Disposal considerations

Waste treatment methods

Avoid release to the environment (- if this is not the intended use).

Dispose of contents/container in accordance with local/national regulation.

14. Transport Information

UN No, UN CLASS

UN number: 1789

UN proper shipping name: HYDROCHLOMIC ACID

Transport hazard class(es): 8

Packing group: II

ERG GUIDE NO.: 157

15. Regulatory Information

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

Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Noxious Liquid ; Cat. Z

Hydrogen chloride

Non Noxious Liquid ; Cat. OS

Water

US major regulations

TSCA

Hydrogen chloride; Water

Other regulatory information

We are not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.
Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.
Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

GHS classification and labelling

Acute Tox. 3: H301 Toxic if swallowed

Acute Tox. 2: H330 Fatal if inhaled

Skin Corr. 1: H314 Causes severe skin burns and eye damage

Eye Dam. 1: H318 Causes serious eye damage

Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

STOT SE 1: H370 Causes damage to organs after single exposure

STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure

Aquatic Acute 1: H400 Very toxic to aquatic life

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2017 TLVs and BEIs. (ACGIH)
http://monographs.iarc.fr/ENG/Classification/index.php
Supplier's data/information

NITE Chemical Risk Information Platform（NITE-CHRIP）http://www.safe.nite.go.jp/japan/db.html

GHS Classification Guidance for Enterprises 2013 Revised Edition （August, 2013,METI）

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2016).