

## Safety Data Sheet

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

#### Product identifier:

Product name: 0.1mol/L Potassium hydroxide solution

Product code(SDS NO): 95514jis\_E-1

#### 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

Competent section: 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

Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

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

#### Label elements



Signal word: Danger

#### HAZARD STATEMENT

Causes severe skin burns and eye damage

Causes serious eye damage

#### PRECAUTIONARY STATEMENT

##### Prevention

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash contaminated parts thoroughly after handling.

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

##### Response

Immediately 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 SWALLOWED: Rinse mouth. Do NOT induce vomiting.

##### Storage

Store locked up.

##### Disposal

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

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### 3. Composition/information on ingredients

#### Substance/Mixture:

##### Mixture

Ingredient name:Potassium hydroxide

Content(%):ca. 0.56

Chemical formula:HKO

Chemicals No, Japan:1-369

CAS No.:1310-58-3

MW:56.11

ECNO:215-181-3

Ingredient name:Water

Content(%):Residual quantity of the ingredient mentioned above

Chemical formula:H<sub>2</sub>O

CAS No.:7732-18-5

MW:18.02

ECNO:231-791-2

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### 4. First-aid measures

#### Descriptions of first-aid measures

##### General measures

Immediately call a POISON CENTER or doctor/physician.

##### IF INHALED

Remove person to fresh air and keep comfortable for breathing.

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.

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

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### 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.

##### Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.

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Wear cold insulating gloves/face shield/eye protection.

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

## 6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Ventilate area after material pick up is complete.

Wear proper protective equipment.

Environmental precautions

Avoid release to the rivers, lakes, ocean, 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.

Preventive measures for secondary accident

Collect spillage.

## 7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire & 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, vapor, mist, or gas.

Safety Measures/Incompatibility

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

Adopted value

(Potassium hydroxide)

ACGIH(1992) STEL: C 2mg/m<sup>3</sup> (URT, eye & skin irr)

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

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

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

Safety and Health measures

Wash ... thoroughly after handling.

Wash contaminated clothing before reuse.

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## 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties

Appearance: Liquid

Color: Colorless

Odor: None

pH: 13.5

Phase change temperature

Initial Boiling Point/Boiling point data N.A.

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 data N.A.

Solubility

Solubility in water: Miscible

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

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## 10. Stability and Reactivity

Reactivity

Runaway polymerization will not occur.

Chemical stability

Stable under normal storage/handling conditions.

Conditions to avoid

Contact with incompatible materials.

Heat.

Incompatible materials

Acids

Combustible substances

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## 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Potassium hydroxide)

rat LD50=284 mg/kg (cal.)

Irritant properties

Skin corrosion/irritation

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[GHS Cat. Japan, base data]  
(Potassium hydroxide)  
rabbit/human :corrosive (SIDS, 2001)

Serious eye damage /irritation  
[GHS Cat. Japan, base data]  
(Potassium hydroxide)

rabbit :corrosive (SIDS, 2001)

No Allergenic and sensitizing effects data available

No Mutagenic effects data available

No Teratogenic effects data available

No Carcinogenic effects data available

No reproductive toxicity data available

No STOT-single/repeated exposure data available

No Aspiration hazard data available

Additional data

There are no data available on the preparation itself.

## 12. Ecological Information

Toxicity

No Aquatic toxicity data available

No Persistence and degradability data available

No Bioaccumulative potential data available

Additional information

There are no data available on the preparation itself.

## 13. Disposal considerations

Waste treatment methods

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

## 14. Transport Information

UN No, UN CLASS

UN number: 1814

UN proper shipping name:POTASSIUM HYDROXIDE SOLUTION

Transport hazard class(es): 8

Packing group: III

ERG GUIDE NO.: 154

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

Noxious Liquid ; Cat. Y<sup>+</sup>·Potassium hydroxide

Non Noxious Liquid ; Cat. OS<sup>+</sup>·Water

## 15. Regulatory Information

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

US major regulations

TSCA

Potassium hydroxide; 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.

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Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

## 16. Other information

### GHS classification and labelling

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

Eye Dam. 1: H318 Causes serious eye damage

### Reference Book

Globally Harmonized System of classification and labelling of chemicals, (4th ed., 2011), UN  
Recommendations on the TRANSPORT OF DANGEROUS GOODS 18th edit., 2013 UN  
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)  
2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)  
2014 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/ENG/Classification/index.php>

Supplier's data/information

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

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

### Other information

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.