Date of issue: 17/06/2021

Safety Data Sheet

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

Product identifier:

Product name: pH 10.0 Buffer solution

SDS No. : D0005E-1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku,Osaka ,JAPAN

Division: Safety Management Dept. of Chemicals

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

Label elements

No GHS label element

No Signal word

3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name:Sodium hydrogen carbonate

Content (%):0.21

Chemical formula:NaHCO3

Chemicals No, Japan:1-164

CAS No.:144-55-8

MW:84.01

ECNO:205-633-8

Ingredient name:Sodium hydroxide

Content (%):0.044

Chemical formula:HNaO

Chemicals No, Japan:1-410

CAS No.:1310-73-2

MW:40.00

ECNO:215-185-5

Ingredient name:Water

Content (%):99

Chemical formula:H2O

CAS No.:7732-18-5

MW:18.02

ECNO:231-791-2

Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

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.

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.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

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

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.

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

Ventilate area until material pick up is complete.

Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

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
(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.
Safety Measures
Wear protective gloves, protective clothing or face protection.
When using do not eat, drink or smoke.
Any incompatibilities
See "10.Stability and Reactivity"
Storage
Conditions for safe storage
Keep container tightly closed.
Store in a cool, dry place. Do not store in direct sunlight.
Container and packaging materials for safe handling
Polyethylene

8. Exposure controls/personal protection
Control parameters
Adopted value
(Sodium hydroxide)
ACGIH(1992) STEL: C 2mg/m3 (URT, eye & skin irr)
OSHA-PEL
(Sodium hydroxide)
TWA: 2mg/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.
Hand protection
Wear protective gloves.
Eye protection
Wear eye/face protection.

9. Physical and Chemical Properties
Information on basic physical and chemical properties
Physical state: Liquid
Color: Colorless
Odor: None
Melting point/Freezing point data is not available.
Boiling point or initial boiling point data is not available.
Boiling range data is not available.

Flammability (gases, liquids and solids) data is not available.
Lower and upper explosion limit/flammability limit data is not available.
Flash point data is not available.
Auto-ignition temperature data is not available.
Decomposition temperature data is not available.
pH: about 10
Kinematic viscosity data is not available.
Solubility:
Solubility in water: Soluble
n-Octanol/water partition coefficient data is not available.
Vapor pressure data is not available.
Density and/or relative density: 1.0
Relative vapor density (Air=1) data is not available.
No Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity
Not available.
Chemical stability
Stable under normal storage/handling conditions.
Possibility of hazardous reactions
(Sodium hydrogen carbonate)
The solution in water is a weak base. Reacts with acids. (ICSC 1044)
(Sodium hydroxide)
The solution in water is a strong base. It reacts violently with acid and is corrosive to metals such as aluminium, tin, lead and zinc. This produces a combustible/explosive gas (hydrogen). Reacts with ammonium salts. Ths produces ammonia. This generates fire hazard.
Contact with moisture and water generates heat. (ICSC 0360)
Conditions to avoid
Contact with incompatible materials.
Contact with fire source.
Incompatible materials
Acids, Metals, Ammonium salts
Hazardous decomposition products
Hydrogen, Ammonia

11. Toxicological Information

Information on toxicological effects
Acute toxicity data is not available.
Irritant properties
Skin corrosion/irritation
[GHS Cat. Japan, base data]
(Sodium hydroxide)
pig/rabbit severe necrosis (ACGIH 7th, 2001 et al)
Serious eye damage/irritation
[GHS Cat. Japan, base data]
(Sodium hydroxide)
rabbit corrosive (SIDS, 2009)
Allergenic and sensitizing effects data is not available.
Mutagenic effects data is not available.
Carcinogenic effects data is not available.
Reproductive toxicity data is not available.

STOT
STOT-single exposure data is not available.
STOT-repeated exposure data is not available.
Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity
Aquatic toxicity
Hazardous to the aquatic environment (Acute)
[GHS Cat. Japan, base data]
(Sodium hydroxide)
Crustacea (Ceriodaphnia reticulata) LC50=40.4mg/L/48hr (SIDS, 2004)
(Sodium hydrogen carbonate)
Crustacea (Ceriodaphnia reticulata) EC50=1020mg/L/48hr (SIDS, 2004)
Hazardous to the aquatic environment (Long-term)
[GHS Cat. Japan, base data]
(Sodium hydrogen carbonate)
Crustacea (Daphnia magna) NOEC >576mg/L/21days (SIDS, 2004)
Water solubility
(Sodium hydroxide)
109 g/100 ml (20℃) (ICSC, 2010)
(Sodium hydrogen carbonate)
8.7 g/100 ml (20℃) (ICSC, 2004)
Persistence and degradability
Persistence and degradability data is not available.
Bioaccumulative potential
Bioaccumulative potential data is not available.
Mobility in soil
Mobility in soil data is not available.
Other adverse effects
Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging
Waste treatment methods
Dispose of contents/container in accordance with local/national regulation.

14. Transport Information

UN No. or ID No.: Not applicable
Not applicable to IMDG Code
Not applicable to IATA Dangerous Goods Regulations
Environmental hazards
MARPOL Annex III - Prevention of pollution by harmful substances
Marine pollutants (yes/no) : no
Maritime transport in bulk according to IMO instruments
Noxious Liquid ; Cat. Y
Sodium hydroxide
Non Noxious Liquid ; Cat. OS
Sodium hydrogen carbonate; Water

15. Regulatory Information

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

Chemicals listed in TSCA Inventory

Sodium hydrogen carbonate; Sodium hydroxide; Water

Other regulatory information

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

16. Other information

The product is not applicable to GHS classifications.

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN
IMDG Code, 2018 Edition (Incorporating Amendment 39-18)
IATA Dangerous Goods Regulations (62nd Edition) 2021
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2020 TLVs and BEIs. (ACGIH)
Supplier's data/information

General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

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 2019).