date of issue: 28/11/2013



Safety Data Sheets

1. Identification

Product name: 0.1 mol/L Sodium acetate-acetic acid solution

Name of supplier :JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-Cho, Koshigaya, Saitama 343-0844, Japan

Division: Quality Assurance Department

Phone :+81-48-986-6161 FAX :+81-48-989-2787 E-mail :shiyaku-t@junsei.co.jp Product code(SDS NO) :95361jis_J_E1-1

2. Hazards identification

GHS classification and label elements of the product

GHS classification

PHYSICAL HAZARDS

Flammable liquids: Category 3

HEALTH HAZARDS

Skin corrosion/irritation: Category 1A

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

classifiable





Signal word : Danger HAZARD STATEMENT

Flammable liquid and Vapor

Causes severe skin burns and eye damage.

PRECAUTIONARY STATEMENT

Prevention

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

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

Wash contaminated parts thoroughly after handling.

Wear protective gloves/protective clothing/face protection.

Response

Immediately call a POISON CENTRE or doctor/physician.

Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

In case of fire: Use appropriate media other than water for extinction.

Storage

Store locked up.

Store in well-ventilated place. Keep cool .

Disposal

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

Physical and Chemical hazards

Flammable liquid. Vapor/air mixture may explode.

3. Composition/information on ingredients

Substance/Preparation : Preparation

Ingredient name:Sodium acetate

content(%):ca. 0.8

Chemical formula:C2H3NaO2

Chemicals No, Japan:2-692

CAS No.:127-09-3

MW:82.03

ECNO:204-823-8

Ingredient name: Acetic acid

content(%):ca. 99.2

Chemical formula:C2H4O2

Chemicals No, Japan:2-688

CAS No.:64-19-7

MW:60.05

HAZCODE_EU:3_H226;1A_H314

ECNO:200-580-7

4. First-aid measures

General procedures

Immediately call a POISON CENTRE or doctor/physician.

IF INHALED

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

IF ON SKIN(or hair)

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.

5. Fire-fighting measures

Suitable extinguishing media

In case of fire, use water mist, foam, dry powder, CO2

Specific hazards arising from the chemical

Containers may explode when heated.

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

Specific fire-fighting measures

Cool container with water spray.

Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.

Wear cold insulating gloves/face shield/eye 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 after material pick up is complete.

Wear proper protective equipment.

Environmental precautions

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

Methods and materials for neutralization, 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/vapours/spray.

Use personal protective equipment as required.

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

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

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/eye protection/face protection.

When using do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities

Recommendation for storage

Keep container tightly closed.

Keep cool . Protect from sunlight.

Store in well-ventilated place.

Store locked up.

8. Exposure controls/personal protection

Control parameters e.g. occupational exposure limit values or biological limit values

Adopted value

(Acetic acid)

ACGIH(2003) TWA: 10ppm

STEL: 15ppm (URT & eye irr; pulm func)

OSHA-PEL

(Acetic acid)

TWA 10ppm, 25mg/m3

NIOSH-REL

(Acetic acid)

TWA 10ppm, 25mg/m3; STEL 15ppm, 37mg/m3

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

Protective equipment

Respiratory protection

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.

9. Physical and Chemical Properties

Physical properties

Appearance :liquid

Color:colorless

Odor: Irritant odor

pH:Acid.

Phase change temperature

Initial Boiling Point/Boiling point :118.5°C Melting point/Freezing point :16.5°C Decomposition temperature data N.A.

Flash point :39°C

Auto-ignition temperature :463°C

Explosion :Flammability or explosive limit

lower limit :5.4vol % upper limit :16vol % Vapor pressure :1.5 kPa (20°C)

Vapor density :2.1

Relative Vapor Density (Air=1) data N.A Specific gravity/Density:1.05g/ml (20°C)

Solubility

Solubility in water :miscible

Solubility in solvent :Miscible in ethanol, glycerin n-Octanol /water partition coefficient data N.A

10. Stability and Reactivity

Stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Reacts violently with strong oxidants. This generates fire and explosion hazard.

Reacts violently with strong bases, strong acids and many other compounds.

Attacks some forms of plastic, rubber and coatings.

Conditions to avoid

Contact with incompatible materials.

Open flames. Heat.

Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents, Some forms of plastic, Rubber,

Coatings.

Hazardous decomposition products

Carbon oxides

11. Toxicological Information

Symptoms related to the physical, chemical and toxicological characteristics

Irritant properties

Skin corrosion/irritation

(Acetic acid)

rabbit: corrosive (IUCLID (2000))

No Allergenic and sensitizing effects data available

No Mutagenic effects data available

No Teratogenic effects data available

No Carcinogenic effects data available

No Toxicity for reproduction data available

No Aspiration hazard data available

Additional data

There are no data available on the preparation itself.

12. Ecological Information

Ecotoxicity

Water solubility

(Sodium acetate)

 $46.5 \text{ g}/100 \text{ ml } (20^{\circ}\text{C}) (ICSC, 2006)$

(Acetic acid)

miscible (ICSC, 1997)

Persistence and degradability

(Acetic acid)

BOD_Degradation: 74% (Registered chemicals data check & review, Japan)

Bioaccumulative potential

(Acetic acid)

log Pow=-0.17(PHYSPROP Database, 2005)

Additional data

There are no data available on the preparation itself.

13. Disposal Considerations

Disposal methods

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

14. Transport Information

UN No, UN CLASS

UN No :2789 UN CLASS :8 Sub. Risk :3 PG :II

Proper shipping name :ACETIC ACID, GLACIAL or ACETIC ACID SOLUTION, more than 80% acid, by mass ERG GUIDE NO :132

15. Regulatory Information

GHS classification and labelling

Flam. Liq. 3: H226 Flammable liquid and Vapor

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

US major regulations

TSCA

Sodium acetate; Acetic acid

Other regulatory information

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

16. Other information

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (4th ed., 2011), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 17th edit. UN Classification, labelling and packaging of substances and mixtures (reg.(EC) No 1272/2008) 2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)

2013 TLVs and BEIs. (ACGIH)

http://monographs.iarc.fr/monoeval/grlist.html

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 test 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 currentEU official data