

Safety Data Sheet

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

Product identifier:

Product name: Sodium tetraborate decahydrate

Product code(SDS NO): 35360jis_J_E1-1

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

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2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2A

Reproductive toxicity: Category 2

Specific target organ toxicity – single exposure: Category 1(kidney, nervous system, respiratory system)

Specific target organ toxicity – repeated exposure: Category 1(nervous system, kidney, respiratory system)

Specific target organ toxicity – repeated exposure: Category 2(testis)

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

Label elements



Signal word: Danger

HAZARD STATEMENT

Causes skin irritation

Causes serious eye irritation

Suspected of damaging fertility or the unborn child

Causes damage to organs (kidney, nervous system, respiratory system) after single exposure

Causes damage to organs (nervous system, kidney, respiratory system) through prolonged or repeated exposure

May cause damage to organs(testis) through prolonged or repeated exposure

PRECAUTIONARY STATEMENT

Prevention

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/mist.

Wash contaminated parts thoroughly after handling.

Wear protective gloves.

Wear eye protection/face protection.

Use personal protective equipment as required.

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

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Response

Get medical advice/attention if you feel unwell.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it 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.

Storage

Store locked up.

Disposal

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

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Common name, synonyms: Borax, Sodium borate

Ingredient name:Sodium tetraborate decahydrate

Content(%):99.0 <

Chemical formula: $B_4Na_{10}O_{22} \cdot 10H_2O$

CAS No.:1303-96-4[1330-43-4(anh)]

MW:381.37

ECNO:215-540-4(anh)

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

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical attention/advice if you feel unwell.

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.

Wash with plenty of soap and water.

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

If skin irritation 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.

Most important symptoms and effects, both acute and delayed

(Symptoms when inhalation or ingestion)

Cough. Sore throat. Nausea. Vomiting. Diarrhoea. Headache. Weakness. Drowsiness.

Convulsions.

(Symptoms when skin and/or eye contact)

Redness. Eye's pain.

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/flamm resistant/retardant clothing.

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

Methods and materials for containment and cleaning up

Sweep up, place in a bag and hold for waste disposal.

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/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

Do not handle until all safety precautions have been read and understood.

Wear protective gloves, protective clothing or face protection.

Wear protective gloves.

Wear eye protection/face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

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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

No Adopted value data available in JSOH

ACGIH(2004) TWA: 2mg/m³(I)

STEL: 6mg/m³(I) (URT 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

Wear respiratory protection.

Hand protection

Wear protective gloves.

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

Eye protection

Wear safety glasses with side-shields.

Wear eye/face protection.

Safety and Health measures

Wash ... thoroughly after handling.

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

Take off contaminated clothing and wash it before reuse.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties

Appearance: Crystals or crystalline powder

Color: White

Odor: None

pH: 9.2 (1.0% solution, 20°C)

Phase change temperature

Initial Boiling Point/Boiling point data N.A.

Melting point/Freezing point: 75°C(loss of crystal water); 742°C(anhydrous form)

Decomposition temperature: 1575°C

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: 1.72g/cm³(20°C)

Solubility

Solubility in water: 5.1 g/100 ml (20°C)

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Solubility in solvent: Practically insoluble in ethanol.

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

10. Stability and Reactivity

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

The solution in water is a weak base.

Conditions to avoid

Contact with incompatible materials.

Heat. Moisture.

Incompatible materials

Acids, Strong oxidizing agents

Hazardous decomposition products

Boron oxides, Sodium oxides.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

rat LD50 =4450 mg/kg (cal.)

Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

rabbit LD50 >10000 mg/kg (HSDB, 2005)

Irritant properties

Skin corrosion/irritation

[GHS Cat. Japan, base data]

animal : mild ~ moderate irritating (PATTY 4th, 2000)

Serious eye damage /irritation

[GHS Cat. Japan, base data]

human : eye irritating (ECETOC TR63, 1995)

No Allergenic and sensitizing effects data available

No Mutagenic effects data available

Carcinogenicity

ACGIH-A4(2004) : Not Classifiable as a Human Carcinogen

Reproductive toxicity

[GHS Cat. Japan, base data]

cat.2; ATSDR, 1992

No Teratogenic effects 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]

kidney; nerve/nervous system; respiratory apparatus/system (ACGIH, 2001)

STOT-repeated exposure

[cat.1]

[Japan published data]

nerve/nervous system; kidney; respiratory apparatus/system (ACGIH 7th, 2001)

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[cat.2]

[Japan published data]

testicle (ATSDR, 1992)

No Aspiration hazard data available

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Aquatic acute toxicity component(s) data

[GHS Cat. Japan, base data]

Fish(Danio rerio) LC50=14.2mg-B/L/96hr (EHC204, 1998)

Water solubility

5.1 g/100 ml (20°C) (ICSC, 2014)

No Persistence and degradability data available

No Bioaccumulative potential data available

13. Disposal considerations

Waste treatment methods

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

14. Transport Information

UN No, UN CLASS

Not applicable to UN NO.

15. Regulatory Information

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

US major regulations

TSCA

Sodium tetraborate decahydrate

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

Skin Irrit. 2: H315 Causes skin irritation

Eye Irrit. 2A: H319 Causes serious eye irritation

Repr. 2: H361 Suspected of damaging fertility or the unborn child

STOT SE 1: H370 Causes damage to organs(kidney, nervous system, respiratory system) after single exposure

STOT RE 1: H372 Causes damage to organs (nervous system, kidney, respiratory system) through prolonged or repeated exposure

STOT RE 2: H373 May cause damage to organs(testis) through prolonged or repeated exposure

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN

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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).