

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

YOKOGAWA

Part No: K9020XC

Rev.1.01

Revision date: 5th August 2016

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier : Powder for pH9 standard solution

Substance name : Sodium tetraborate decahydrate

CAS No. : 1303-96-4

EC No : 603-411-9

1.2. Relevant identified uses of the substance or mixture and uses advised against

Used for preparing pH9 standard solution

1.3 Details of the supplier of the safety data sheet:

Manufacture:

Name Yokogawa Electric Corporation

Address 2-9-32 Nakacho, Musashino-shi, Tokyo, 180-8750 Japan

Telephone +81-422-52-5845 (IA PF PBC Analytical Products Dept.)

Website <http://www.yokogawa.com>

Importer:

Name Yokogawa Europe B.V. (Regional Headquarters in EU)

Address Euroweg 2 , 3825 HD Amersfoort, The Netherlands

Postal Address P.O. Box 163, 3800 AD Amersfoort, The Netherlands

Phone +31-(0)88-4641000

Website www.yokogawa.com/eu

E-Mail info@nl.yokogawa.com

1.4 EMERGENCY TELEPHONE NUMBER:

+31-88-4641000

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture:

Hazard Class and Category Code(s): Eye irritation, category 2

Reproductive toxicity, category 1B

according to Regulation (EC) No 1272/2008 [CLP]

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

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Hazard pictograms :



Signal word : Danger

Hazard statements : H319 Causes serious eye irritation.
H360(FD) May damage fertility or the unborn child.

Precautionary statements :

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P308 + P313 IF exposed or concerned: Get medical advice/attention.

Supplemental Hazard information (EU) : Not applicable.

2.3 Other hazards

Not applicable

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : Sodium tetraborate decahydrate
INDEX No : 005-011-01-1
EC No : 603-411-9
REACH Registration No : SVHC 1303-96-4
CAS No : 1303-96-4

Purity : >99.0%
Synonymes : disodium tetraborate decahydrate, borax decahydrate
Stabiliser : not available
Hazard impurities : not available

SECTION 4: First aid measures

4.1 Description of first aid measures

General information : No information available.
Following inhalation : Move into fresh air and rinse nose and mouth with water.
Following skin contact : Wash with water/shower.
Following eye contact : Rinse opened eye for several minutes under running water.
Following ingestion : Rinse out mouth and then drink plenty of water.
In case of persistent symptoms consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

No special information available

4.3 Indication of any immediate medical attention and special treatment needed

No special information available

SECTION 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media : Water, CO₂, foam, extinguishing powder.

Unsuitable extinguishing media : No information available

5.2 Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

5.3 Advice for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Special protective equipment is not required.

6.2 Environmental precautions:

Be careful not discharged to surface or ground water.

6.3 Methods and material for containment and cleaning up

For containment : Put in suitable, closed containers or plastic bags for disposal.

For cleaning up : Wipe with waste clothes or papers, and wash the spill site with water.

6.4 Reference to other sections

For disposal refer to section 13.

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

YOKOGAWA

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures : No special measures required.

Advice on general occupational hygiene : Wash hands thoroughly after handling.
Not to eat, drink and smoke in work areas.

7.2 Conditions for safe storage, including any incompatibilities

Further information on storage conditions:

Keep in cool and dried place, away from direct sunlight.

7.3 Specific end uses

Refer to section 1.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits :

(EU RAR) OEL Workers 4.48 mg B/m³
Estimate based on 8 hours exposure and 10 m³ inhalation and 60 kg adults.

(ACGIH_2007) STEL: 6 mg/m³ inhalable fraction
TWA: 2 mg/m³ inhalable fraction

8.2 Exposure controls

No special measures required.

Personal protective equipment:

Eye / Face protection : Safety glasses recommended.

Skin protection : Protective gloves impervious to water recommended.

Respiratory protection : Dust mask recommended.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Crystalline powder

Colour : White or colorless

Odour : Odourless

pH : No data available. (approx.9 if dissolved in water)

Safety Data Sheet

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Melting point / freezing point	: 75degree
Initial boiling point /boiling range	: 320degree
Flash point	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper/lower flammability or explosive limits	
Upper	: No data available
Lower	: No data available
Vapour pressure	: No data available
Vapour density	: No data available
Relative density	: 1.72
Solubilities	: water; soluble (4.7g/100g at 20 degree) hot water; freely soluble ethanol; practically insoluble,or insoluble glycerin; very freely soluble
Partition coefficient(n-octanol/water)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2 Other information:

Physical hazards: No data available

SECTION 10: Stability and reactivity

- | | |
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| 10.1 Reactivity | : No data available |
| 10.2 Chemical stability | : Stable under recommended storage conditions. Refer to section7. |
| 10.3 Possibility of hazardous reactions | : No data available |
| 10.4 Conditions to avoid | : Extremes of temperature and direct sunlight.
High humidity conditions are also not recommended. |
| 10.5 Incompatible materials | : Strong oxidizing agents, Acids. |
| 10.6 Hazardous decomposition products | : Boron oxide |

SECTION 11: Toxicological information

11.1 Information on toxicological effects

(a) acute toxicity	; Oral LD50	=4500mg/kg (RAT)
	Ddermal LD50	= 10000mg/kg(RABBIT)
	Inhalation LC50	= no data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

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(b) skin corrosion/irritation	; No data available
(c) serious eye damage/irritation	; dust may cause eye irritation. (Garabrant et al,1984)
(d) respiratory or skin sensitization	; No data available
(e) germ cell mutagenicity	; No data available
(f) carcinogenicity	; No data available
(g) reproductive toxicity	; Abnormalities are seen in spermatogenesis. (ATSDR (1992)).
(h) STOT-single exposure	; No data available
(i) STOT-repeated exposure	; No data available
(j) aspiration hazard	; No data available

11.2 Other information

When used and handled according to specifications, the product does not have any harmful effects.

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity	:Algae/aquatic plants	= No data available
	Fish: LC50	= Zebrafish 14.2mg boron/L 96 h
	Crustacea	= No data available

12.2 Persistence and degradability : No information available

12.3 Bioaccumulative potential : No information available

12.4 Mobility in soil : No information available

12.5 Results of PBT and vPvB assessment : Not applicable.

12.6 Other adverse effects:

No ecological problems are to be expected when the product is handled and used with due care and attention.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product / Packaging disposal:

Disposal should be in accordance with applicable regional, national and local laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

Empty ampoules can be treated like household refuse.

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Waste codes / waste designations according to EWC:

16 03 03; inorganic wastes containing dangerous substances

SECTION 14: Transport information

Non-hazardous material. Not subject to transport regulations

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN No.	-	-	-	-
14.2 UN Proper shipping name	Non-hazardous material	Non-hazardous material	Non-hazardous material	Non-hazardous material
14.3 Transport hazard class(es)	-	-	-	-
Hazard label(s)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	Not applicable	Not applicable	Not applicable	Not applicable

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

This product is classified in eye irritation, category 2 and reproductive toxicity category 1B according to regulation EC 1272/ 2008 [CLP].

Other regulations, limitations and prohibitive regulations

- Substances of very high concern (SVHC) according to REACH, Article 57
1303-96-4 Disodium tetraborate, decahydrate

Observe the normal safety regulations when handling chemicals.

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

YOKOGAWA

Part No: K9020XC

Rev.1.01

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15.2 Chemical Safety Assessment:

For this product a chemical safety assessment is not required.

SECTION 16: Other information

16.1 Indication of changes

Revised at 5th August 2016 (Ver1.01):

Change of manufacture's telephone number in section 1.3

SECTION 2 is updated due to update of SECTION 11(c)

Issued at 18th April 2016 (Ver1.00)

16.2 Abbreviations and acronyms:

Repr.1B Reproductive toxicity category 1B

EU RAR European Union Risk Assessment Report

ACGIH American Conference of Governmental Industrial Hygienists

16.3 Key literature references and sources for data

Summary of Classification and Labelling in the ECHA classification and labelling inventory

European Union Risk Assessment Report-DISODIUM TETRABORATE, ANHYDROUS BORIC ACID/BORIC ACID, CRUDE NATURAL (1)

Chemical hazard assessment Report "Boron and its compounds" provided by NEDO in Japan.
(ver.1.0 March 2008)

SDS provided by Wako Pure Chemical Industries, Ltd
W01W0119-0143 JGHEEN Sodium Tetraborate Decahydrate (Version 4.01)

SDS provided by Koso Chemical Co, Ltd (No. 13494-7.5)

16.4 Further information:

The information provided in this Safety Data Sheet is based on the present state of knowledge and is believed to be correct. Its purpose is to characterize the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.