

SAFETY DATA SHEET

PRODUCT NAME	Borate pH Buffer Powder (pH9.18)	Date of issue	28/2/2013
		Date of revision/ Last Confirmation	3/4/2025

1. Identification of the substance or mixture and the supplier

Product name	Borate pH Buffer Powder (pH9.18)
SDS No.	GHS-0113E
Name of supplier	Kyoto Electronics Manufacturing Co., Ltd.
Address	68 Ninodan-cho, Shinden, Kisshoin, Minami-ku, Kyoto, Japan
Division	Quality Assurance Department
Phone	+81-75-691-4121
Fax	+81-75-691-4127
Emergency phone	+81-75-691-4125
Recommended uses and restrictions on use	
Recommended use	For analysis
Restrictions on use	When using for purposes other than those recommended, consult a specialist.

2. Hazard identification

GHS classification

Health hazards

Skin corrosion / Irritation	Category 2
Serious eye damage / Eye irritation	Category 2
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 1(Central nervous system, Gastrointestinal) Category 3(Respiratory tract irritation)
Specific target organ toxicity (repeated exposure)	Category 1(Nervous system, Respiratory system)

Environmental hazards

Long-term (chronic) aquatic hazard	Category 4
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GHS label elements

Hazard pictograms



Signal words

Danger

Hazard statements

H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause genital irritation.
 H360 May damage fertility or the unborn child.
 H370 Causes damage to organs (Central nervous system, Gastrointestinal).
 H372 Causes damage to organs (Nervous system, Respiratory system) through prolonged or repeated exposure.
 H413 May Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention

P201 Obtain special instructions before use.
 P260 Do not breathe mist or vapors.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P321 Special treatment is required (see section 4 of this SDS).
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.

Other hazards which do not result in classification

None known.

3. Composition/Information on ingredients

substance / mixture

substance

Components

No.	Chemical name	CAS No.	Concentration (% w/w)	ENCS / ISHL number
1	Sodium Tetraborate Decahydrate	1303-96-4	>=99.0	(1)-69

4. First-aid measures

General advice

Do not leave the victim unattended.

If inhaled

Remove victim to fresh air.

	Call a doctor/physician if you feel unwell.
In case of skin contact	Wash off with soap and plenty of water. If symptoms persist, contact a physician.
In case of eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Contact a physician immediately.
If swallowed	Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth if unconscious. If large quantities of this material are swallowed, call a physician immediately.
Most important symptoms and effects, both acute and delayed	No information
Notes to physician	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	Water Carbon dioxide (CO ₂) Regular foam Dry sand (This product does not burn itself.)
Unsuitable extinguishing media	None in particular
Specific hazards during fire fighting	In the event of a fire, irritating or toxic fumes or gases may be released. If safe to do so, remove the product's container from the fire's vicinity. If this is not possible, spray water around the area to cool it down.
Specific extinguishing methods	Standard procedure for chemical fires.
Special protective equipment for fire-fighters	Use personal protective equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Remove all sources of ignition.
Environmental precautions	Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling

Advice on protection against fire and explosion	No information available.
Advice on safe handling	Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only in area provided with appropriate exhaust ventilation.
Avoidance of contact	Humidity, heat
Hygiene measures	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

Storage

Conditions for safe storage	Keep in a well-ventilated place. Store at room temperature. To maintain product quality, do not store in heat or direct sunlight. Keep container tightly closed.
Further information on storage stability	No decomposition if stored and applied as directed.

8. Exposure controls/Personal protection

Threshold limit value and permissible exposure limits for each component in the work environment

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Reference concentration / Permissible concentration	Basis
Sodium Tetraborate Decahydrate	1303-96-4	TWA STEL	2 mg/m ³ 6 mg/m ³	ACGIH ACGIH

Personal protective equipment

Respiratory protection	Suitable respiratory equipment
Hand protection material	Protective gloves
Eye protection	Safety glasses
Skin and body protection	Protective suit

9. Physical and chemical properties

Physical state	Crystalline, powder
Color	White
Odor	No data available
Melting point / Freezing point	741 °C
Initial boiling point and boiling range	No data available
Flammability (liquids)	No data available
Lower explosion limit and upper explosion limit / flammability limit	
Upper explosion limit / Upper flammability limit	No data available
Lower explosion limit / Lower flammability limit	No data available
Flash point	No data available
Decomposition temperature	No data available
pH	9.18 (aqueous solution, 25°C)
Autoignition temperature	No data available
Self-Accelerating decomposition temperature (SADT)	No data available
Viscosity	
Viscosity, kinematic	No data available
Solubility(ies)	
Water solubility	Easy to dissolve (4.8 %, 20°C)
Solubility in other solvents	Hardly soluble (solvent: ethanol, diethyl ether)
Partition coefficient: n-octanol/water	No data available
Vapor pressure	No data available
Density and / or relative density Relative density	2.367
Relative vapor density	No data available
Particle characteristics Particle size	No data available

10. Stability and reactivity

Reactivity	No decomposition if stored and applied as directed.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No data available
Conditions to avoid	Extreme temperatures and direct sunlight
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	Carbon monoxide, Carbon dioxide

11. Toxicological information

Acute toxicity

Acute oral toxicity	LD50(Rat) 2,660 mg/kg
Acute dermal toxicity	LD50(Rabbit) >2,000 mg/kg
Acute inhalation toxicity	LC50(Rat) 2 mg/m ³ , Exposure time 4 hours
Skin corrosion/irritation	Skin irritation
Serious eye damage/eye irritation	Serious eye irritation
Respiratory or skin sensitization	
Skin sensitization	Not classified based on available information.
Respiratory sensitization	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Not classified based on available information.
Reproductive toxicity	May damage fertility or the unborn child.
STOT-single exposure	May cause central nervous system damage, gastrointestinal damage, and respiratory irritation.
STOT-repeated exposure	Nervous system disorders Respiratory disorders.
Aspiration toxicity	Not classified based on available information.
Remarks	No data available

12. Ecological information

Ecotoxicity	No data available
Persistence and degradability	Decomposition rate: 0% by BOD (Ministry of Economy, Trade and Industry Existing Chemical Substance Safety Inspection)
Bioaccumulative potential	No data available
Mobility in soil	No data available
Hazardous to the ozone layer	Not applicable
Other adverse effects	No data available

13. Disposal considerations

Waste from residues	Can be incinerated, when in compliance with local regulations. Send to a licensed waste management company.
Contaminated packaging	Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of contents/ container to an approved waste disposal plant.

14. Transport information

International Regulations

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

Not applicable for product as supplied.

Domestic regulation

Please refer to the law and local regulations, etc. in each country

Special precautions for user

Not applicable

15. Regulatory information

16. Other information

Citations/References

NITE-Gmiccs (National Institute of Technology and Evaluation)

NITE-CHRIP (National Institute of Technology and Evaluation)

Workplace Safety Site (Ministry of Health, Labor and Welfare)

SDS from various upstream manufacturers

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