



Material Safety Data Sheet

Regulation (EC) No. 1907/2006, 1272/2008

Version: 1.0

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MSDS REPORT

Kelilong Electron Co. Ltd
No.60 Xingye Middle Road, Fuan 355019, Fujian, China

MSDS Report No. : CTL1902219011-MSDS
Compilation Date : Mar. 07, 2019
Trade Name : pH Buffer Powder (PH9.18)
Composition/Ingredient of The Sample : See Section 3 on the MSDS
Service Requested : Material Safety Data Sheet (MSDS) for the sample with submitted composition.
Summary : As per request, the contents and formats of the MSDS are prepared in accordance with Regulation (EC) No 1907/2006, 1272/2008, Regulation (EU) No 2015/830 and are provided per attached.

Signed for and on behalf of
Technical Center:



Shenzhen CTL Testing Technology Co., Ltd.

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

- **1.1 Product identifier**
 - **Trade name:** *pH Buffer Powder(PH9.18)*
 - **Registration number:** *Data not available*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against on**
 - **Application of the substance/ mixture:** *Adjusting pH meter.*
- **1.3 Details of the supplier of the Material Safety Data Sheet**
 - **Manufacturer/Supplier:**
Kelilong Electron Co. Ltd
No.60 Xingye Middle Road, Fuan 355019, Fujian, China
Tel: + 18060361699
Fax: /
Email: kelilong@1718cn.com
 - **Only Representative/other EU contact point:** *Information not available*
 - **Further information obtainable from:** *Kelilong Electron Co. Ltd*
- **1.4 Emergency telephone number**
 - General in EU**
Tel: 112 (Available 24 hours a day)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
Classification according to regulation (EC) 1272/2008:



GHS08 Health hazard

Repr. 1B H360FD May damage fertility or the unborn child

- **Classification system:**

The classification is according to the latest edition of Regulation 1272/2008, and extended by company and literature data.

- **2.2 Label elements**
 - **Labeling according to Regulation (EC) No 1272/2008:** *The product is labeled according to CLP regulation.*
 - **Hazard pictograms:**



- **Signal word:** *Danger*

- **Hazard statements:**

H360FD May damage fertility or the unborn child

- **Precautionary statement:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308 + P313 IF exposed or concerned: Get medical advice/attention.


P405 Store locked up.

P501 Dispose of contents/container in accordance with local regulation.

- 2.3 Other hazards
 - Results of PBT and vPvB assessment
- PBT: Not applicable
vPvB: Not applicable

SECTION 3: Composition/information on ingredients

- 3.1 Chemical characterization: Substance
- Description: The substances listed below with nonhazardous additions.

| · Component: | | |
|--------------------|--|------|
| CAS No.: 1303-96-4 | Borax (B4Na2O7.10H2O) | 100% |
| EC No.: 603-411-9 |  Repr. 1B, H360FD | |

SECTION 4: First aid measures

- 4.1 Description of first aid measures

General advice: IF exposed or concerned: Get medical advice/attention.

After inhalation: Supple with fresh air; Consult doctor if you feel unwell.

After skin contact: Wash skin with water. If skin irritation occurs: Get medical advice/attention.

After eye contact: Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

After swallowing: Rinse mouth with water. If feel unwell, consult doctor.

- 4.2 Most important symptoms and effects, both acute and delayed: May damage fertility or the unborn child.
- 4.3 Indication of any immediate medical attention and special treatment needed: No known immediate medical attention or special treatment.

SECTION 5: Fire-fighting measures

- 5.1 Extinguishing media

· Suitable extinguishing agents: The product is not combustible. Use a dry powder, foam or CO2 extinguisher to extinguish surrounding fire.

- 5.2 Special hazards arising from the substance or mixture: May produce irritant dust.

- 5.3 Advice for firefighters

Protective equipment: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures:

Cut off leakage source and collect spillage; Ensure adequate ventilation; Wear protective gloves/protective clothing/eye protection/face protection; Avoid breathing dust; Prevent contact with eyes and skin.

- 6.2 Environmental precautions:

Do not allow the product to enter sewers/surface or ground water; Inform respective authorities in case of seepage into water course or sewage system.

- 6.3 Methods and material for containment and cleaning up:

Pick up mechanically; Ensure good ventilation; Dispose contaminated material as waste according to item 13.

• **6.4 Reference to other sections:**

See section 7 for information on safe handling; See section 8 for information on personal protection equipment; See section 13 for disposal information.

SECTION 7: Handling and storage

• **7.1 Precautions for safe handling:**

Obtain special instructions before use; Do not handle until all safety precautions have been read and understood; Ensure adequate ventilation; Wear protective gloves/protective clothing/eye protection/face protection; Avoid breathing dust; Prevent contact with eyes.

• **Information about fire and explosion protection:** Normal measures for preventive fire protection.

• **7.2 Conditions for safe storage, including any non-compatibility**

• **Requirements to be met by storerooms and receptacles:** Store in a dry and well-ventilated place.

• **Information about storage in one common storage facility:** Keep away from water and acid.

• **Further information about storage conditions:** Store locked up.

• **7.3 Specific end use(s):** Adjusting pH meter.

SECTION 8: Exposure controls/personal protection

• **8.1 Control parameters**

• **Ingredients with limit values that require monitoring at the workplace:**

| Country | Limit value - Eight hours | Limit value - Short term |
|----------------|---|---|
| Belgium | 2 mg/m ³ | 6 mg/m ³ |
| Denmark | 2 mg/m ³ | 4 mg/m ³ |
| France | 5 mg/m ³ | - |
| Germany (DFG) | 0,75 mg/m ³ inhalable aerosol ; Calculated as boron | 0,75 mg/m ³ inhalable aerosol ; Calculated as boron; 15 minutes average value In the case of simultaneous appearance of boric acid and tetraborates counts 0,75 mg/m ³ calculated as boron. |
| Ireland | 5 mg/m ³ | - |
| Poland | 0.5 mg/m ³ | 2 mg/m ³ |
| Spain | 2 mg/m ³ | 6 mg/m ³ |
| United Kingdom | 5 mg/m ³ | - |

• **DNELs:**

| DNEL type | DNEL worker value | DNEL consumer value |
|------------------|----------------------------------|-----------------------|
| Systemic effects | Long-term, inhalation exposure | 6.7 mg/m ³ |
| | Long-term, dermal exposure | - |
| | Long-term, oral exposure | 790 µg/kg bw/day |
| | Acute /short term, oral exposure | 790 µg/kg bw/day |

• **PNECs:**

| | |
|------------------------------------|-----------|
| Freshwater | 2.9 mg/L |
| Intermittent releases (freshwater) | 13.7 mg/L |
| Marine water | 2.9 mg/L |
| Sewage treatment plant (STP) | 10 mg/L |

• **Additional information:** The lists valid during the marking were used as basis.

• **8.2 Exposure controls**

• Based on the composition shown in section 3, the following measures are suggested for occupational safety measure.

• **Appropriate engineering controls:**

Handle in accordance with good industrial hygiene and safety practice; Wash hands and face before breaks and at the end of work;
See section 7 for information about design of technical facilities.

• **Personal protective equipment**

• **Respiration protection:** Use positive pressure breathing mask if concentrations in air could exceed occupational exposure standard.

• **Protection of hands:**



Protective gloves

Gloves made from butyl rubber Neoprene™ rubber, nitrile rubber (thickness > 0.3mm; breakthrough times up to 480 minutes).

• **Eye protection:**



Safety glasses

Protective goggles with side-shields.

• **Environmental exposure controls:**

Control measures must be made in accordance with Community environmental protection legislation.

SECTION 9: Physical and chemical properties

• 9.1 Information on basic physical and chemical properties

• **Appearance:**

| | |
|--|--|
| Form | Powder |
| Color | White |
| Odor | Odorless |
| Odor threshold | Not applicable |
| pH-value | 9.18 (3.80g in 1000ml water, at 25°C) |
| Change in condition | |
| Melting point/melting range | 1000°C |
| Boiling point and boiling range | Not determined |
| Freezing point | Not determined |
| Flash point | Not applicable |
| Flammability(solid, gas) | Not flammable solid |
| Decomposition temperature | Not determined |
| Self-ignition | Product is not self-igniting. |
| Danger of explosion | Product does not present explosive hazard. |
| Explosion limits | |
| Lower: | Not explosive |
| Upper: | Not explosive |
| Oxidizing properties | No oxidation |
| Vapor pressure | 0 Pa at 20°C |
| Density | 2.3544g/cm ³ at 26 °C |
| Relative density | Not determined |
| Vapor density | Not determined |
| Evaporation rate | Not determined |
| Solubility in/Miscibility with | |
| Water | 208 g/L at 20 °C |

| | |
|---|-----------------------------------|
| · Partition coefficient (n-octanol/water) | Log Pow=-1.53 at 22 °C and pH 7.5 |
| · Viscosity | |
| Dynamic | Not applicable |
| Kinematic | Not applicable |
| · 9.2 Other information | Data not available |

SECTION 10: Stability and reactivity

- **10.1 Reactivity:** No decomposition if used according to specification.
- **10.2 Chemical stability:** Stable under recommended storage conditions.
- **10.3 Possibility of hazardous reactions:** No further relevant information available.
- **10.4 Conditions to avoid:** High temperature and moisture.
- **10.5 Incompatible materials:** Strong acid and alkali.
- **10.6 Hazardous decomposition products:** No known hazardous decomposition products.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:** No animal test has been done for this product or the components.

| | | |
|------------|-----------|-----------|
| Rat | LD50-oral | 2660mg/kg |
| Mouse | LD50-oral | 2000mg/kg |
| Guinea pig | LD50-oral | 5330mg/kg |

- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eyes damage/ irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitization:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** May damage fertility or the unborn child.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** Not hazardous to aquatic environment.

| | |
|--|---|
| Short-term toxicity to fish | LC50 (4 days) 74 - 79.7 mg/L |
| Long-term toxicity to fish | NOEC (34 days) 6.4 mg/L LOEC (32 days) 23 mg/L |
| Short-term toxicity to aquatic invertebrates | LC50 (4 days) 64 - 544 mg/L NOEC (4 days) 103 mg/L |
| Long-term toxicity to aquatic invertebrates | NOEC (28 days) 16.6 - 43.3 mg/L |
| Toxicity to aquatic algae and cyanobacteria | EC50 (72 h) 40.2 - 66 mg/L LOEC (62.4 h) 70.1 mg/L |
| Toxicity to aquatic plants other than algae | NOEC (10 days) 6.5 mg/L |

| | |
|----------------------------|--|
| | LOEC (10 days) 3.6 - 19.5 mg/L |
| Toxicity to microorganisms | NOEC (72 h) 10 - 20 mg/L LOEC (72 h) 20 - 25 mg/L |
| Sediment toxicity | NOEC (28 days) 20 - 43 mg/L LOEC (28 days) 37.7 mg/kg sediment dw |

- **12.2 Persistence and degradability:** Inorganic substance.
- **12.3 Bio-accumulative potential:** Low bio-accumulation. Log Pow= -1.53 at 22 °C and pH 7.5
- **12.4 Mobility in soil:** Soluble in water.
- **12.5 Results of PBT and vPvB assessment**
PBT: Not applicable
vPvB: Not applicable
- **12.6 Other adverse effects:** No further relevant information available.
- **12.7 Additional ecological information**
• **General notes:** Water hazard class 1 (German Regulation) (self-assessment): Slightly hazardous for water.
Do not allow large quantities of the product to reach ground water, water course or sewage system.

SECTION 13: Disposal consideration

- **13.1 Waste treatment methods**
• **Recommendation:** Must not be disposed together with household garbage.
- **13.2 Un-cleaned packaging**
• **Recommendation:** Dispose of contents/container in according to the local regulation.

SECTION 14: Transport information

| | |
|--|--|
| • 14.1 UN-Number ADR, RID, AND, IMDG, IATA | Not regulated as dangerous transport goods |
| • 14.2 UN proper shipping name ADR, RID, AND, IMDG, IATA | Void |
| • 14.3 Transport hazard class (es) ADR, RID, AND, IMDG, IATA Class Label | Void Void |
| • 14.4 Packing group ADR, RID, AND, IMDG, IATA | Void |
| • 14.5 Marine pollution | No |
| • 14.6 Special precautions for user | Void |
| • 14.7 UN "Model Regulation" | Void |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **MAK (German Maximum Workplace Concentration):** Not listed.

- **Directive 2012/18/EU**
- **Named dangerous substances-ANNEX I:** Not listed.
- **National regulations.**
- **Water hazard class:** Water hazard class 1 (German Regulation) (self-assessment): Slightly hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
- **SVHC Candidate list of REACH Regulation Annex XIV Authorization:**

| | | |
|-----------|-----------------------|--------------------------------------|
| 1303-96-4 | Borax (B4Na2O7.10H2O) | Toxic for reproduction (Article 57c) |
|-----------|-----------------------|--------------------------------------|

- **REACH Regulation Annex XVII Restriction:** Not listed.
- **REACH Regulation Annex XIV Authorization List:** Not listed.
- **15.2 Chemical safety assessment:** A Chemical Safe Assessment has not been carried out.

SECTION 16: Other information

The contents and format of this MSDS are in accordance with Regulation (EC) No 1907/2006, 1272/2008 and Regulation (EU) No 2015/830.

DISCLAIMER OF LIABILITY:

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

• Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

PBT: Persistent, Bio accumulative and Toxic

SVHC: Substance of Very High Concern

LD50: Lethal dose, 50 percent

LC50: Lethal concentration, 50 percent

EC50: Concentration of maximal effect, 50 percent

NOEC: No observed effect concentration

LOEC: Lowest Observed Effect Concentration

Product Photo



End of Report