Safety Data Sheet

Reference No. 1063

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1. Chemical product and company identification

Product name PACKTEST Boron (High Range) Model WAK-B(C)

Company name KYORITSU CHEMICAL-CHECK Lab., Corp.
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Dept. in charge Sales Department

Recommended uses and restrictions Reagent for water quality measurement

2. Hazards identification

Most important hazards information: Irritation
Its effects: Harmful if inhaled or ingested. Contact with eyes, skin and mucous causes irritation.
Long-term exposure may cause discomfort feeling, nausea or headache.

[GHS Classification**]**
Physical hazards: Classification not possible (no data for GHS classification available)
Health hazards: Not classified or classification not possible (no data for GHS classification available)
Environmental hazards: Classification not possible (no data for GHS classification available)

[GHS labeling elements**]**
None

[Signal word**]**
None

[Hazard statements**]**
None

[Precautionary statements**]**
Keep out of reach of children and store in the cool, dry, and dark place.
Carefully read instructions before use and do not use for other purposes.
Wear personal protective equipment if necessary.
Do not inhale reagents.
Wash contaminated clothing.
Wash hands well before and after handling.
Avoid release to the environment.

3. Composition/ information on ingredients

Discrimination of single substance or mixture: Mixture

Reagent name	K-1 reagent		K-2 reagent		
Chemical name	Ammonium acetate	Water	Azomethine H	Other (not regulated)	Polyethylene
Content	<20%	>80%	< 1%	< 16%	>83%
Chemical formula	CH_3COONH_4	H_2O	$C_{17}H_{11}NO_8S_2Na_2$	-	$(C_2H_4)_n$
METI No. (reference number under CSCL in Japan)	(2)-688	-	-	-	(6)-1
CAS No.	631-61-8	7732-18-5	32266-60-7	-	9002-88-4

4. First-aid measures

If reagents or test solutions;
Enter in eyes: Immediately rinse eyes thoroughly.
Contact with skin: Immediately wash out contaminated site with plenty of water.
Enter into mouth: Immediately rinse mouth with plenty of water.

If ingested or in case any symptoms appear after above measures, immediately get medical advice or treatment.

5. Fire-fighting measures

Extinguishing methods: Cut off ignition sources and extinct by a suitable media.
Suitable extinguishing media: Water (mist), powder, carbon dioxide, dry sand.

6. Accidental release measures

In case of outdoor use: avoid spill of reagents or waste solutions.
In case of indoor use: if spilled on a table or floor, wipe off immediately spilled reagents and dispose of them.

7. Handling and storage

Handling: Care should be made so that reagents will not contact with eyes or skin, and avoid ingestion.
Especially for outdoor use, ensure to bring back reagents, waste solutions after the measurement, and the used containers.
Storage: Avoid direct sunlight and store in a well-ventilated, dry and dark place at room temperature.

8. Exposure controls and personal protection

Administrative control level
Working environment standard: Not established

Occupational exposure limits
Japan Society for Occupational health: Not established
ACGIH (TLVs): Not established
OSHA (PEL): Not established

Protective equipment: Recommended to wear protective glasses and gloves.

9. Physical and chemical properties

Physical state: K-1: Liquid reagent 60 mL x 1 poly-bottle in a poly bag
K-2: Tube containing powder reagent
1.2g x 40 tubes/kit (5 tubes per aluminum laminated packaging)
Color: K-1: colorless (liquid), K-2: yellow (powder), semi-transparent (polyethylene tube)
Odor: Faint odor
pH: 6

Melting point, boiling point, flash point, ignition point, lower explosion limit, vapor pressure, density, relative density, solubility, Pow, kinetic viscosity: not available as a mixture

10. Stability and reactivity

Avoid leaving in a place where high temperature, humid or under direct sunlight. Stable under normal use conditions and no dangerous reactions under specific conditions are expected. No information on hazardous decomposition product is available.

11. Toxicological information

No data on mixture is available. Data on each substance are shown below.

K-1 reagent
Ammonium acetate:
Acute toxicity:
Acute toxicity: Intraperitoneal-rat LD_{50} = 632 mg/kg, Intraperitoneal-mouse LD_{50} = 736 mg/kg
Intravenous injection-mouse LDLo = 386 mg/kg (RTECS)
Other data: Not available.

Water:
Acute toxicity:
Oral: Human-infant TDLo = 333 g/kg, cramping, attacks or fever.
Human-men TDLo = 42.86 g/kg, shaking, mussel pain.
Rat LD_{50} > 90 ml/kg
Intravenous injection: Mouse- LD_{50} = 25 g/kg
Interperitoneal: Mouse- LD_{50} = 190 g/kg
Other data: Not available.

K-2 reagent
Azomethine H: No data regarding heath hazard is available.

Polyethylene:
Acute toxicity:
Oral: Rat LD_{50} > 7,950 mg/kg (used 7,950 mg/kg for the calculation of ATEmix below)
Carcinogenicity: IARC Group 3 (not classifiable as to carcinogenicity to humans).
Other data: Not available

GHS classification results of K-1 and K-2 reagents as mixtures are shown below.
[Acute toxicity (oral)], [Skin corrosion/ irritation], [Serious eye damage/ eye irritation],
[Respiratory or skin sensitization], [Germ cell mutagenicity], [Carcinogenicity], [Reproductive toxicity],
[Specific target organ toxicity (single exposure)], [Specific target organ toxicity (repeated exposure)],
[Aspiration hazard]
Not classified or classification is not possible due to not enough data available.

12. Ecological information

No data on mixture is available. Data on each substance are shown.
Ammonium acetate, Azomethine H and Polyethylene: No eco-toxicological information available.

GHS classification results of K-1 and K-2 reagents as mixtures are shown below.
[Hazardous to the aquatic environment, short-term (acute)],
[Hazardous to the aquatic environment, long-term (chronic)]
Classification is not possible due to not enough data available.
[Harmful effects on the ozone layer]:
Classification is not possible because each of the substances is not described in Annex to Montreal Protocol.

13. Disposal considerations

Waste solution contains ca 60 mg of ammonium nitrogen per measurement.
Always dispose of in accordance with local regulations.

14. Transport information

In addition to precautionary measures regarding the handling and the storage, avoid rough handling that may cause damaging the containers. It is recommended to ship by air because of the storage under high temperature for long period of time may lead to deterioration.

UN classification and number: Not applicable
Civil Aeronautics Act: Not applicable
Fire Service Act: Not applicable
Total weight of the product: ca.230 g/kit

15. Regulatory information

Poisonous and Deleterious Substances Control Act: Not applicable
PRTR Act: Not applicable
Industrial Safety and Health Act: Not applicable
Water Pollution Control Act: Applicable
K-1 reagent contains ammonium acetate and is applicable as “Cabinet order article 2, No 26, ammonia, ammonium compounds, nitrate compounds and nitric compounds”.
Sewerage Act: Applicable.
K-1 reagent contains ammonium acetate and is applicable as “Cabinet order article 9-5, No 1, ammonium nitrogen, nitrate and nitric nitrogen”.

16. Other information

Reference literature

15,911 no Kagaku Shouhin, The Chemical Diary Co., Ltd. (2011)
Material Safety Data Sheet No.JW010283, Wako Pure Chemical Industries, Ltd. (2009.05.14)
Material Safety Data Sheet No.JW041678, Wako Pure Chemical Industries, Ltd. (2009.05.18)
Material Safety Data Sheet A015, Dojindo Molecular Technologies, Inc. (2004.06.07)
Material Safety Data Sheet No.051110033, TOSOH CORPORATION (2004.07.09)
Koukuu Kikenbutsu Yusou Houreisyu, Ed. MLIT, HOUBUN SHORIN CO., LTD.(2019)
JIS Z 7252:2019 Classification of chemicals based on “Globally Harmonized System of Classification and Labelling of Chemicals (GHS)” (Japanese Industrial Standards Committee)
JIS Z 7253:2019 Hazard communication of chemicals based on GHS-Labelling and Safety Data Sheet (SDS) (Japanese Industrial Standards Committee)
UN GHS (tentative translation, forth revised version), GHS Kankei Syocho Renraku Kaigi (2011)
Ministry of Economy, Trade and Industry, GHS Classification Guidance for Enterprises 2013 Revised Edition (2013)

NOTE) This information is not always exhaustive and use with care.
This data sheet only provides information but any description cannot be warranted.
Descriptions may possibly be changed because of new findings or modification of the current knowledge.
Precautions only cover normal handling.
This English SDS is prepared in the cooperation with the Chemicals Evaluation and Research Institute (CERI), Japan.