

Safety Data Sheet

Reference No. 2145

Issue: 11th June 2009
Revision: 5th January 2016

1. Chemical product and company identification

Product name	Reagent Set for Water Analyzer Free Cyanide (Reagent No.14B)	Model	LR-CN-B
Company name	KYORITSU CHEMICAL-CHECK Lab., Corp.		
Address	37-11, Den-enchofu 5-chome, Ota-ku, Tokyo 145-0071, Japan		
Tel	+81-3-3721-9207		
Fax	+81-3-3721-0666		
Person in charge	Chisato HARA		

Recommended uses and restrictions Reagent for water quality measurement

2. Hazards identification

[GHS Classification]

Physical hazards: Classification not possible (no data for GHS classification available)

Health hazards:

Skin corrosion/irritation: Category 2 (applicable only R-1 reagent)

Serious eye damage/eye irritation: Category 2 (applicable only R-1 reagent)

Category 2B (applicable only R-2 reagent)

Respiratory sensitization: Category 1 (applicable only R-1 reagent)

For those health hazards not listed above are not classified or classification not possible
(no data for GHS classification available)

Environmental hazards: Not classified or classification not possible (no data for GHS classification available)

[GHS labeling elements]



[Signal word]

Danger

[Hazard statements]

Causes skin irritation. (applicable only R-1 reagent)

Causes serious eye irritation. (applicable only R-1 reagent)

Causes eye irritation. (applicable only R-2 reagent)

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (applicable only R-1 reagent)

[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	R-1 reagent		R-2 reagent		
Chemical name	Chloramine T (Sodium p-Toluenesulfonchloramide Trihydrate)	Buffering agent	4-Pyridinecarboxylic acid sodium salt	3-Methyl-1-phenyl-5-pyrazolone	Extender
Content	< 3%	> 97%	< 30%	< 20%	> 50%
Chemical formula	CH ₃ C ₆ H ₄ SO ₂ NCINa · 3H ₂ O	-	C ₆ H ₄ NNaO ₂	C ₁₀ H ₁₀ N ₂ O	-
METI No. (reference number under CACL in Japan)	(3)-2178 (3)-3132	-	-	(5)-287	-
CAS No.	7080-50-4	-	16887-79-9	89-25-8	-

4. First-aid measures

If reagents or test solutions;

Enters in eyes: Immediately rinse thoroughly

Contact with skin: Immediately wash out contaminated site with plenty of water.

Enters 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 and 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 to avoid ingestion.

Especially for outdoor use, ensure to bring back reagents, waste solutions after the measurement and used containers.

Storage: Avoid direct sunlight and store in a well-ventilated, cool, dry, and dark place.

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: R-1: Powder reagent 0.15 g x 30 poly-tubes in an aluminum laminated bag

R-2: Powder reagent 0.4 g x 30 poly-tubes in an aluminum laminated bag

Odor: R-1: No odor, R-2: No odor

pH: 7.5 (R-1 reagent, R-2 reagent, final measurement solution)

Melting point, boiling point, flash point, ignition point, lower explosion limit, vapor pressure, density, specific gravity, 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 of R-1 and R-2 reagents are shown below.

R-1 reagent

Chloramine T:

Acute toxicity(Oral): Rat-LD₅₀=935mg/kg

Acute toxicity(Inhalation): Rat-LD₅₀>4.2mg/l/4H

Skin corrosion/irritation: Since the substance has corrosivity of rabbit skin, it is set into category 1A

Serious eye damage/ eye irritation: Since the substance has sever corrosivity of rabbit eyes, it is set into category 1.

Respiratory sensitization: The substance is classifies as R42

Germ cell mutagenicity: Based on the negative results of Ames test and micronucleus test.

Specific target organ toxicity (repeated exposure): Prolonged and repeated inhalation may cause asthma.

Other data: Not available

R-2 reagent

4-Pyridinecarboxylic acid sodium salt:

Serious eye damage/ eye irritation: Category 2B

Other data: Not available

3-Methyl-1-phenyl-5-pyrazolone:

Acute toxicity(Oral): Rat-LD₅₀=2500mg/kg

Serious eye damage/ eye irritation:

Rabbit 500 mg/24 H, mild

Other data: Not available

GHS classifications as a mixture are shown below.

[Acute toxicity (oral)]

R-1 and R-2 reagents: Not classified based on the application of the additivity formula.

[Skin corrosion/ irritation]

R-1 reagent: Classified as Category 2 (Warning, Causes skin irritation.) because it contains 1 to 5% of Chloramine T.

R-2 reagent: Classification is not possible because of data lack.

[Serious eye damage/ eye irritation],

R-1 reagent: Classified as Category 2 (Warning, Causes serious eye irritation.) because it contains 1 to 3% of Chloramine T.

R-2 reagent: Classified as Category 2B (Warning, Causes eye irritation.) because it contains more than 10% of category 2B substance.

[Respiratory sensitization]:

R-1 reagent: Classified as Category 1 (Danger, May cause allergy or asthma symptoms or breathing difficulties if inhaled.) because it contains more than or equal to 1% of Chloramine T.

R-2 reagent: Classification is not possible because of data lack.

[Specific target organ toxicity (repeated exposure)]:

R-1 reagent: Not classified because concentrations of Chloramine T is less than 10%.

R-2 reagent: Classification is not possible because of data lack.

[Acute toxicity (Dermal)], [Acute toxicity(Inhalation)], [Skin sensitization], [Germ cell mutagenicity], [Carcinogenicity], [Reproductive toxicity], [Specific target organ toxicity (single exposure)], [Specific target organ toxicity (repeated exposure)], [Aspiration hazard]

Classification is not possible because of data lack.

12. Ecological information

No data on mixture is available. Data on each of R-1 and R-2 reagents are shown below.

Chloramine T:

Hazardous to the aquatic environment acute and chronic: *Daphnia magna* EC50=4.5mg/l/48H

4-Pyridinecarboxylic acid sodium salt:
No eco-toxicological information is available.

1-Phenyl-3-methyl-5-pyrazolone:
Hazardous to the aquatic environment acute and chronic: *Leuciscus idus melanotus* LC50=58mg/l/48H

GHS classifications of R-1 and R-2 reagents as an each of mixture are shown below.

[Hazardous to the aquatic environment acute]

R-1 reagent: Not classified based on the application of the additivity formula.

R-2 reagent: Classification is not possible because of data lack.

[Hazardous to the aquatic environment chronic]

R-1 reagent: Not classified based on the application of the additivity formula.

R-2 reagent: Classification is not possible because of data lack.

[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

Always dispose of in accordance with local regulations.

14. Transport information

In addition to precautionary measures regarding handling and storage, avoid rough handling so as not to break containers. It is recommended to ship by air because under high temperature for long period may lead to deterioration.

UN classification and number: Not applicable
Civil Aeronautics Act: Not applicable
Poisonous and Deleterious Substances Control Act:
Not applicable
Fire Service Act: Not applicable
Total weight of the product: ca.90 g/kit

15. Regulatory information

PRTR Act: Not applicable
Industrial Safety and Health Act: Not applicable

16. Other information

Reference literature

15,911 no Kagaku Shouhin, The Chemical Diary Co., Ltd. (2011)
Safety Data Sheet No.07210,Kanto Chemical Co., Inc. (2010.12.21)
Safety Data Sheet No.W01W0119-1275, Wako Pure Chemical Industries, Ltd. (2013.11.01)
Safety Data Sheet No.W01W0116-0950, Wako Pure Chemical Industries, Ltd. (2014.03.10)
Koukuu Kikenbutsu Yusou Houreisyu, Ed. MLIT, HOUBUN SHORIN CO., LTD. (2015)
JIS Z 7252:2014 Classification of chemicals based on "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)" (Japanese Industrial Standards Committee)
JIS Z 7253:2012 Hazard communication of chemicals based on GHS-Labeling 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.