

Safety Data Sheet

Reference No. 1008

Issue: 1st June 1995
Revision: 1st June 2021

1. Chemical product and company identification

Product name PACKTEST Iron (Divalent) Model WAK-Fe²⁺

Company name KYORITSU CHEMICAL-CHECK Lab., Corp.
Address 1-18-2 Hakusan, Midori-ku, Yokohama, Kanagawa 226-0006, JAPAN
Tel +81-45-482-6937
Fax +81-45-507-3418
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 dry and dark place at room temperature.
Carefully read instructions before use and do not use for other purposes.
Wear personal protective equipment if necessary.
Do not inhale reagent.
Wash contaminated clothing.
Wash hands thoroughly 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		
Chemical name	1,10-Phenanthroline monohydrate (o-Phenanthroline)	Other (not regulated)	Polyethylene
Content	< 1%	< 10%	> 89%
Chemical formula	C ₁₂ H ₈ N ₂ ·H ₂ O	-	(C ₂ H ₄) _n
METI No. (reference number under CSCL in Japan)	(5)-3915	-	(6)-1
CAS No.	5144-89-8	-	9002-88-4

4. First-aid measures

If reagents or test solutions;

- Enter in eyes: Immediately rinse 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 and dry sand.

6. Accidental release measures

In case of outdoor use: avoid spill of reagent or waste solution.

In case of indoor use: if spilled on a table or floor, wipe off immediately spilled reagent 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 inhalation.

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, 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: Powder in tube 1.1 g x 50 tubes/kit (5 tubes per one aluminum laminated packaging)

Color: White (powder), semi-transparent (polyethylene tube)

Odor: No odor

pH: 5

Melting point, boiling point, flash point, ignition point, lower explosion limit, vapor pressure, density, relative density, solubility, LogPow, 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.

1,10-Phenanthroline monohydrate (*o*-Phenanthroline):

Data on anhydride (CAS No. 66-71-7) are shown.

Acute toxicity: Intravenous-mouse LD₅₀ = 18 mg/kg, Intraperitoneal-mouse LD₅₀ = 75 mg/kg (RTECS)

Other data: Not available

Polyethylene:

Acute toxicity: Oral: Rat LD₅₀ > 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 classifications as a mixture are shown below.

[Acute toxicity (oral)], [Acute toxicity (dermal)], [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 classifications are not possible because of data lack.

12. Ecological information

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

1,10-Phenanthroline monohydrate (*o*-Phenanthroline), Polyethylene: No eco-toxicological information available.

GHS classifications as a mixture are shown below.

[Hazardous to the aquatic environment, short-term (acute)],

[Hazardous to the aquatic environment, long-term (chronic)]

Classifications are 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

The pH level of waste solution after the measurement in poly tube will be 5.

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

(This product contains less than 1% of 1,10-Phenanthroline monohydrate)

Civil Aeronautics Act: Not applicable

Fire Service Act: Not applicable

Total weight of the product: ca.140 g/kit

15. Regulatory information

Poisonous and Deleterious Substances Control Act: Not applicable

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)
Material Safety Data Sheet No.JW160086, Wako Pure Chemical Industries, Ltd. (2008.08.27)
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-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.