

## Safety Data Sheet

Reference No. 1009

Issue: 1<sup>st</sup> June 1995  
Revision: 1<sup>st</sup> June 2021

### 1. Chemical product and company identification

Product name	PACKTEST Iron PACKTEST Economy Package Iron	Model	WAK-Fe KR-Fe
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

It's 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 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-1reagent			
Chemical name	1,10-Phenanthroline monohydrate ( <i>o</i> -Phenanthroline)	Sodium L(+)-ascorbate	Other (not regulated)	Polyethylene
Content	< 1%	<1%	< 10%	> 88%
Chemical formula	C <sub>12</sub> H <sub>8</sub> N <sub>2</sub> ·H <sub>2</sub> O	C <sub>6</sub> H <sub>7</sub> NaO <sub>6</sub>	-	(C <sub>2</sub> H <sub>4</sub> ) <sub>n</sub>
METI No. (reference number under CSCL in Japan)	(5)-3915	8-(4)-2 8-(4)-248	-	(6)-1
CAS No.	5144-89-8	134-03-2	-	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, 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 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, 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: Tube containing powder reagent

1.1 g x 50 tubes/kit (5 tubes per aluminum laminated packaging)(WAK-Fe)

1.1 g x 150 tubes/kit (5 tubes per aluminum laminated packaging)(KR-Fe)

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

Odor: No 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.

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

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

Acute toxicity: Intravenous-mouse LD<sub>50</sub> = 18 mg/kg, Intraperitoneal-mouse LD<sub>50</sub> = 75 mg/kg (RTECS)

Other data: Not available

Sodium L(+)-ascorbate:

Acute toxicity (free): Oral-rat LD<sub>50</sub> = 11,900 mg/kg

Other data: Not available

Polyethylene:

Acute toxicity:

Oral: Rat LD<sub>50</sub> > 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 classification is 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), Sodium L(+)-ascorbate, 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

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 (WAK-Fe)

ca.360 g/kit (KR-Fe)

## 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

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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 Houeisyu, 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.