Safety Data Sheet

Reference No. 1024

Issue: 1st March, 1999
Revision: 1st June 2021

1. Chemical product and company identification

Product name PACKTEST Formaldehyde Model WAK-FOR

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 cool 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 reagents.
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		K-2 reagent		
Chemical name	3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate	Other (not regulated)	Ferric chloride (III) hexahydrate	Other (not regulated)	Polyethylene
Content	<2%	>98%	<1%	<10%	>89%
Chemical formula	$C_8H_9N_3S \cdot HCl \cdot H_2O$	-	$FeCl_3 \cdot 6H_2O$	-	$(C_2H_4)n$
METI No. (reference number under CSCL in Japan)	-	-	(1)-213	-	(6)-1
CAS No.	14448-67-0	-	10025-77-1	-	9002-88-4

4. First-aid measures

If reagents or developed sample;
Enter in eyes: Immediately rinse eyes with water 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 liquid.
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: Avoid eyes contact, skin contact, ingestion and inhalation of reagents. Developed sample is pH 3. Similar attention is necessary.
Especially for outdoor use, ensure to bring back reagents, liquid waste 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): TWA 1 mg(Fe)/m^3 (only for Ferric chloride (III) hexahydrate)
OSHA (PEL): Not established

Protective equipment: Recommend to wear protective glasses and gloves

9. Physical and chemical properties

Physical state: K-1: Powder reagent 0.1 g x 40 tubes in an aluminum laminated bag.
K-2: Tube containing powder reagent
1.1 g x 40 tubes/kit (5 tubes per one aluminum laminated packaging)
Color: K-1: white (powder), K-2: brownish yellow (powder), semi-transparent (polyethylene tube)
Odor: K-1: sulfurous odor, K-2: no odor
pH: 7 (when added K-1 reagent), 3 (developed sample)

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 in K-1 and K-2 reagents are shown below.

K-1 reagent
3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate:
Acute toxicity (oral): Rat LD_{50} = 149 mg/kg (RTECS), Rabbit LD_{50} = 177 mg/kg (RTECS)
Serious eye damage/eye irritation: Eye irritation-rabbit slight (80 mg) (RTECS)
Other data: Not available

K-2 reagent
Ferric chloride (III) hexahydrate
Acute toxicity: Rat LDLo = 900 mg/kg (RTECS), Interperitoneal- mouse LD_{50} = 260 mg/kg (RTECS)
Other data: Not 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 classifications as a mixture of each K-1 and K-2 reagents 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 in K-1 and K-2 reagents are shown below.

3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate, Ferric chloride (III) hexahydrate, Polyethylene: No eco-toxicological information is available.

GHS classifications as a mixture of each K-1 and K-2 reagents 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

pH of developed sample is pH 3. Liquid waste contains ca. 1 mg of iron per measurement.
Always dispose according to 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 number	2811
Proper shipping name:	Toxic solid, organic, n.o.s. (Applicable only K-1 reagent)
UN classification:	Class 6.1 (Toxic substances)
Packing group:	III
Civil Aeronautics Act:	Same as above, applicable for Excepted Quantities of Dangerous Goods.
Fire Service Act:	Not applicable
Total weight of the product:	ca.150 g/kit

15. Regulatory information

Poisonous and Deleterious Substances Control Act: Not applicable

PRTR Act:	Not applicable (This product contains Ferric Chloride less than 1%)
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.JW130398, Wako Pure Chemical Industries, Ltd. (2007.04.11)
Material Safety Data Sheet No.JW090087, Wako Pure Chemical Industries, Ltd. (2007.03.01)
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.