

3. Composition/ information on ingredients

Discrimination of single substance or mixture: Mixture

Reagent name	K-1 reagent		
Chemical name	Sulfanilic Acid	Other (not regulated)	Polyethylene
Content	1 – 4.9 %	5 – 9.9 %	90 – 99 %
Chemical formula	C ₆ H ₇ NO ₃ S	-	(C ₂ H ₄) _n
METI No. (reference number under CSCL in Japan)	(3)-1971	-	(6)-1
CAS No.	121-57-3	-	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 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 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: Tube containing powder reagent
1.1 g x 50 tubes/kit (5 tubes per aluminum laminated packaging)
Color: light gray (powder), semi-transparent (polyethylene tube)
Odor: No odor
pH: 3

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.

Sulfanilic Acid:

Acute toxicity:

Since its rat LD₅₀ values are reported to be 12300 mg/kg and 13200 mg/kg using technical grade test substance (IUCLID (2000)), the substance was classified into "Not classified".

Skin corrosion/ irritation:

Skin irritation tests using rabbits that received 24-hour exposure found the substance slightly irritating (IUCLID (2000)). In other studies, 20-hour exposure resulted in development of mild and slight rubor (IUCLID (2000)). Based on these results, the substance was classified into "Not classified" using the JIS classification criteria (Category 3 in the United Nations classification).

Serious eye damage/ eye irritation:

Eye irritation tests using rabbits found the substance moderately irritating 24 hour after application (IUCLID (2000)). It is rated as Xi: R36 in the EU classification (EU-Annex 1 (accessed in November 2008)). Based on this information, the substance was classified into Category 2A.

Skin sensitization:

Two different guinea pig maximization tests found the substance sensitizing (IUCLID (2000)). In addition, several skin sensitizing tests using guinea pigs yielded positive results (IUCLID (2000)). Furthermore, it is rated as R43 in the EU classification (EU-Annex 1 (accessed in November 2008)). Thus, the substance was classified into Category 1.

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.

[Respiratory or skin sensitization]

Classified as Category 1 (Warning, May cause an allergic skin reaction.) because it contains more than or equal to 1% of other ingredient of Category 1.

[Acute toxicity (oral, dermal, inhalation)], [Skin corrosion/ irritation], [Serious eye damage/ eye irritation]

[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.

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)]

Not classified based on application of additivity formula.

[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 liquid waste after the measurement is 3. Liquid Waste contains ca. 1 mg of zinc 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.140 g/kit

15. Regulatory information

Poisonous and Deleterious Substances Control Act: Not applicable
PRTR Act: Not applicable
Industrial Safety and Health Act: Applicable
This product contains more than 1% of Sulfanilic Acid.
“Cabinet order, article18, shall be indicated the Name of the substance, #2”
“Cabinet order, article18-2, shall be notified the Name of the substance, #2”

16. Other information

Reference literature

NITE, GHS Classification, ID:m-nite-121-57-3_v1 4-aminobenzenesulphonic acid
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.