

## Safety Data Sheet

### 1. Product and company identification

Product name : AQUALYTE Water Standard 1

Part No. : D312139-1

#### Company information

Name of supplier : HIRANUMA Co., Ltd.

Address : 1739 Motoyoshida, Mito, Ibaraki, 310-0836, JAPAN

Name of section : Quality assurance department

Telephone number : +81-29-247-7343

Facsimile number : +81-29-240-0381

Mail address : info-f2@hiranuma.com

Name of Manufacturer : KANTO CHEMICAL CO., INC.

Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo,  
103-0022, JAPAN

Recommended use : For research use only

Restrictions on use : Seek expert judgment when using the product for  
applications other than those recommended.

### 2. Hazards identification

#### GHS classification

##### Physical hazards

Flammable liquids : Category 3

##### Health hazards

Serious eye damage/eye irritation  
: Category 2

Reproductive toxicity : Category 1B

##### Environmental hazards

Aquatic acute : Category 3

Aquatic chronic : Category 3

##### Hazard pictograms



Signal word : Danger

Hazard statements : Flammable liquid and vapor  
Causes serious eye irritation

May damage fertility or the unborn child  
Harmful to aquatic life  
Harmful to aquatic life with long lasting effects

#### Precautionary statements

Prevention : Do not handle until all safety precautions have been read and understood.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep container tightly closed.  
Ground and bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Use only non-sparking tools.  
Take action to prevent static discharges.  
Wash hands, forearms and face thoroughly after handling.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.

Response : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF exposed or concerned: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.

Storage : Store in a well-ventilated place. Keep cool.  
Store locked up.

Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 3. Composition/Information on ingredients

Distinction of Substance or Mixture  
: Mixture

Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
Anisole	90.5	C7H8O	Listed	231-791-2	100-66-3
Diethylene glycol dimethyl ether	9.5	C6H14O3	Listed	203-924-4	111-96-6

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#### 4. First aid measures

##### First aid measures

- After inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.
- After skin contact : Wash the affected areas under running water.
- After eye contact : Gently rinse the affected eyes with clean water for at least 15 minutes.
- After ingestion : The chemical is volatile. Do not induce vomiting because it increases the risk of aspiration into the lungs. Get medical attention immediately. If necessary, rinse mouth with water.
- Self protection of the first-aiders  
: Rescuers should wear proper protective equipment like rubber gloves, goggles.

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#### 5. Fire fighting measures

##### Suitable extinguishing media

- : Dry chemical powder, carbon dioxide, dry sand, foam

##### Unsuitable extinguishing media

- : Water spray

##### Firefighting instructions

- : Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.
- Fight fire from windward.
- Dry chemical powder, carbon dioxide or dry sand should be used for small fires. Foam extinguisher is effective for a large scale fire.

##### Personal protection (Emergency response)

- : Firefighters should wear protective equipment.

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#### 6. Accidental release measures

##### Personal Precautions, Protective Equipment and Emergency Procedures

- General measures : Wear proper protective equipment and avoid contact with skin and inhalation of vapor. Conduct operations from upwind and evacuate people downwind. Remove all sources of ignition. Keep away personnel except for authorized ones from spillage area by stretching ropes.

### Environmental precautions

#### Environmental precautions

: Attention should be given to avoid damage to the environment by flowing of spillage to rivers.

### Methods and Equipment for Containment and Cleaning up

For containment : Absorb spill with inert material (e.g., diatomaceous earth, sand) and flush spillage area with copious amounts of water.

#### Prevention Measures for Secondary Accidents

: Remove nearby sources of ignition and prepare extinguishing media.

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## 7. Handling and storage

### Handling

#### Technical measures

: Wear proper protective equipment to avoid contact with skin or inhalation of vapor. Fire is strictly prohibited.  
Ventilate well at working places.

#### Precautions for safe handling

: Avoid formation of vapor and aerosols.  
Do not allow contact with oxidizing substances.

### Storage

Storage conditions : Store in a dark, cool place and tightly closed.

#### Materials used in packaging/ containers

: Glass, fluorine resin, stainless steel.

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## 8. Exposure controls / Personal protection equipment

ACGIH TWA	Not established
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#### Appropriate engineering controls

: Use with an enclosed system or a local exhaust ventilation.

### Protective equipment

#### Respiratory protection

: Chemical cartridge respirator with an organic vapor cartridge or airline respirator

Hands protection : Impervious protective gloves

Eyes protection : Safety goggles

#### Skin and body protection

: Protective clothing, protective boots

## 9. Physical and chemical properties

Physical state	: Liquid
Color	: Colorless.
Odor	: Aromatic
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 153.75 °C (as anisole)
Flash point	: 41 °C (C.C.) (as anisole)
Auto-ignition temperature	: 475 °C (as anisole)
Decomposition temperature	: No data available
Flammability	: Flammable
Vapor pressure	: 0.47 kPa (25 °C) (as anisole)
Relative density	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: Water; Slightly soluble Organic solvent; Soluble in acetone, ethanol.
Partition coefficient n-octanol/water (log Pow)	: No data available
Explosive limits (vol %)	: No data available
Viscosity, kinematic	: No data available
Particle characteristics	: No data available

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## 10. Stability and reactivity

Reactivity	: May react with oxidizing substances.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Stable under normal conditions of use.
Conditions to avoid	: Light, heat.
Incompatible materials	: Oxidizing substances.
Hazardous decomposition products	: Carbon monoxide.

## 11. Toxicological information

Acute toxicity (oral) : No classification

ATEmix=3794 mg/kg

Acute toxicity (dermal) : Classification not possible

Acute toxicity (inhalation)

: No classification (gas)

Classification not possible (vapor)

Classification not possible (dust, mist)

Skin corrosion/irritation

: Classification not possible

Serious eye damage/irritation

: Causes serious eye irritation (category 2)

Diethylene glycol dimethyl ether: Based on data from a rabbit test (US FDA TG) showing mild irritation within 24 hours at a 0.1 mL application, and another rabbit test showing no irritation, it was determined to possess minor irritation. This substance is classified as category 2B.

Based on the content of diethylene glycol dimethyl ether, this product was classified as category 2.

Respiratory sensitization

: Classification not possible

Skin sensitization : Classification not possible

Diethylene glycol dimethyl ether: Based on the results of no sensitization in the Buehler test and the Alternative footpad method using guinea pigs, it was classified as "No classification".

Germ cell mutagenicity

: Classification not possible

Anisole: Classification not possible due to lack of data from in vivo mutagenicity tests. From in vitro mutagenicity tests, there is a report of a negative Ames test.

Diethylene glycol dimethyl ether: Negative in a chromosomal aberration test (somatic in vivo mutagenicity test) in bone-marrow cells following inhalational exposure in rats. Therefore, it was classified as "No classification".

Carcinogenicity : Classification not possible

Reproductive toxicity : May damage fertility or the unborn child (category 1B)

Diethylene glycol dimethyl ether: In a combined repeated-dose toxicity and reproductive development screening study in rats by

forced oral administration (OECD TG422, GLP), liver effects (lobular central hepatocyte hypertrophy, increased relative weight (females only)), low MCV (males), and increased extramedullary hematopoiesis in the spleen (females) were observed in parent animals at high doses. Effects on sexual function and fertility (prolonged sexual cycle length, prolonged gestation period, increased post-implantation embryo loss rate, decreased delivery rate, and abnormal nursing status) and developmental effects on live births (decreased birth rate, decreased 4-day survival rate, and decreased number of live births at 4 days after birth) were observed at high doses. In addition, developmental toxicity studies by inhalation and oral route showed distinct fetal toxicity (increased absorption and fetal mortality) and increased incidence of malformations at doses that had no maternal toxicity or only suppressed weight gain. Therefore, it was classified as category 1B.

Specific target organ systemic toxicity – single exposure

: Classification not possible

Specific target organ systemic toxicity – repeated exposure

: Classification not possible

Aspiration hazard

: Classification not possible

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## 12. Ecological information

### Ecotoxicity

Aquatic acute : Harmful to aquatic life (category 3)

Crustaceans EC50m=12.2 mg/L

Aquatic chronic : Harmful to aquatic life with long lasting effects (category 3)

Based on the results of the summation method, it was classified as category 3.

### Persistence and degradability

No additional information available

### Bioaccumulative potential

No additional information available

### Mobility in soil

No additional information available

### Hazardous to the ozone layer

: Classification not possible

### 13. Disposal consideration

Ecological waste information

: Burn in a chemical incinerator equipped with an afterburner and a scrubber. Or entrust approved waste disposal companies with the disposal.

Contaminated container and packaging

: In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

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### 14. Transport information

International Regulations

Transport by sea (IMDG)

UN-No. (IMDG) : 2222

Proper shipping name (IMDG)  
: ANISOLE MIXTURE

Packing group (IMDG)  
: III

Transport hazard class(es) (IMDG)  
: 3

Air transport (IATA)

UN-No. (IATA) : 2222

Proper shipping name (IATA)  
: Anisole mixture

Packing group (IATA)  
: III

Transport hazard class(es) (IATA)  
: 3

Marine pollutant : Not applicable

MFAG-No : 128

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### 15. Regulatory information

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

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### 16. Other information

References

1) Company data on file (SDS provided by manufacturer)

2) NITE Chemical Risk Information Platform (NITE-CHRIP), National Institute of Technology



and Evaluation.

\* The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee the properties of the product. The concentrations or ranges of concentrations shown in "3. Composition/Information on ingredients" are examples calculated based on the amounts used at the time of manufacture and do not guarantee the concentrations in the product. The total value may not be 100% due to fractional processing. The Safety Data Sheet(SDS) is prepared based on JIS Z7253.