

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
**Revision date** 29-Feb-2024  
 Revision Number 1.06

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	29 Pesticides Mixture Standard Solution WQ-9 (each 20µg/mL Acetonitrile Solution)
<b>Product Code</b>	164-28431,160-28433

<b>Supplier</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-2029
<b>Emergency telephone number</b>	+81-6-6203-3741 / +81-3-3270-8571
<b>Recommended uses</b>	For research use only Reference material (as defined in Japanese Industrial Standards (JIS) Q0030)
<b>Restrictions on use</b>	Seek expert judgment when using for purposes other than those recommended.

## Section 2: HAZARDS IDENTIFICATION

## GHS classification

Classification of the substance or mixture

<b>Flammable liquids</b>	Category 2
<b>Acute toxicity - Dermal</b>	Category 3
<b>Acute toxicity - Inhalation (Vapors)</b>	Category 4
<b>Serious eye damage/eye irritation</b>	Category 2A
<b>Specific target organ toxicity (single exposure)</b>	Category 1
<b>Category 1</b> central nervous system, respiratory system	
<b>Specific target organ toxicity (repeated exposure)</b>	Category 2
<b>Category 2</b> blood system, central nervous system, respiratory system, liver, kidneys	
<b>Acute aquatic toxicity</b>	Category 1
<b>Chronic aquatic toxicity</b>	Category 1

## Pictograms



## Signal word

Danger

## Hazard statements

H225 - Highly flammable liquid and vapor  
 H319 - Causes serious eye irritation  
 H311 - Toxic in contact with skin  
 H332 - Harmful if inhaled  
 H410 - Very toxic to aquatic life with long lasting effects  
 H400 - Very toxic to aquatic life  
 H370 - Causes damage to the following organs: central nervous system, respiratory system  
 H373 - May cause damage to the following organs through prolonged or repeated exposure: blood system, central nervous system, respiratory system, liver, kidneys

**Precautionary statements-(Prevention)**

- Use only outdoors or in a well-ventilated area
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Avoid release to the environment
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use explosion-proof electrical/ ventilating / lighting / equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge
- Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary statements-(Response)**

- IF exposed: Call a POISON CENTER or doctor/physician
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- If eye irritation persists: Get medical advice/attention
- Call a POISON CENTER or doctor/physician if you feel unwell
- Wash contaminated clothing before reuse
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell
- In case of fire: Use suitable extinguishing media for extinction
- Collect spillage

**Precautionary statements-(Storage)**

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

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant

**Others**

Other hazards Not available

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Single Substance or Mixture Mixture

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
Acetonitrile	98	41.05	(2)-1508	*	75-05-8
Paclobutrazol	0.0020	293.79	N/A	N/A	76738-62-0
Pyraclofos	0.0020	360.80	N/A	N/A	77458-01-6
(S)-Uniconazole P	0.0020	291.78	N/A	8-(3)-718	83657-17-4
Cinmethylin	0.0020	274.40	N/A	N/A	87818-31-3
Cadusafos	0.0020	270.39	N/A	2-(7)-313	95465-99-9
Dichlofenthion	0.0020	315.15	(3)-4112	4-(9)-190	97-17-6
Fosthiazate	0.0020	283.35	N/A	N/A	98886-44-3
Carbaryl	0.0020	201.22	(4)-387	*	63-25-2
Benfuresate	0.0020	256.32	N/A	8-(4)-1525	68505-69-1
Pyrazoxyfen	0.0020	403.26	N/A	8-(2)-1206	71561-11-0
Propaphos	0.0020	304.34	N/A	N/A	7292-16-2
Methamidophos	0.0020	141.13	N/A	N/A	10265-92-6
Propoxur	0.0020	209.24	(3)-3216	4-(6)-185	114-26-1
Fenoxanil	0.0020	329.22	N/A	N/A	115852-48-7
Tolfenpyrad	0.0020	383.87	N/A	8-(2)-1836	129558-76-5
Ethiprole	0.0020	397.20	N/A	8-(2)-2026	181587-01-9
Phosalone	0.0020	367.81	N/A	8-(7)-170,8-(7)-490	2310-17-0
Butachlor	0.0020	311.85	N/A	4-(10)-861	23184-66-9

CYAP	0.0020	243.22	(3)-2625	*	2636-26-2
2-Amino-3-chloro-1,4-na phthoquinone	0.0020	207.61	(4)-390	7-(2)-29	2797-51-5
Acephate	0.0020	183.17	N/A	2-(3)-168	30560-19-1
Tefuryltrione	0.0020	442.91	N/A	8-(4)-1711	473278-76-1
Metolachlor	0.0020	283.79	N/A	4-(7)-1351	51218-45-2
N-2,4-Dimethylphenyl-N' -methylformamidine Hydrochloride	0.0020	198.69	N/A	N/A	51550-40-4
Cypermethrin	0.0020	416.30	N/A	4-(7)-992	52315-07-8
Chlorpyrifos-methyl	0.0020	322.53	N/A	8-(1)-1943	5598-13-0
cis-Permethrin	0.0010	391.29	N/A	N/A	61949-76-6
trans-Permethrin	0.0010	391.29	3-4010	*	61949-77-7
Orysastobin	0.0010	391.42	N/A	4-(7)-2170	248593-16-0
(E)-Dimethylvinphos	0.0010	331.52	N/A	4-(9)-145	71363-52-5
(Z)-Dimethylvinphos	0.0010	331.52	N/A	4-(9)-145	67628-93-7
(5Z)-Orysastobin	0.0010	N/A	N/A	N/A	N/A-16-2843-3

**Note on ISHL No.:** \* in the table means announced chemical substances.

## Section 4: FIRST AID MEASURES

### Inhalation

Remove to fresh air. If symptoms persist, call a physician.

### Skin contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

### Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

### Ingestion

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

### Protection of first-aiders

Use personal protective equipment as required.

## Section 5: FIRE FIGHTING MEASURES

### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder, Sand

### Unsuitable extinguishing media

No information available

### Specific hazards arising from the chemical product

Vapors may form explosive mixture with air Thermal decomposition can lead to release of irritating and toxic gases and vapors. Vapors may form explosive mixtures with air

### Special extinguishing method

No information available

### Special protective actions for fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin,

or inhaling the gas. Work from windward, and retract the people downwind.

#### Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

#### Methods and materials for contaminant and methods and materials for cleaning up

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

#### Recovery, neutralization

No information available

#### Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

### Handling

#### Technical measures

Highly flammable. Avoid contact with high temperature objects, spark, and strong oxidizing agents. To cut with care and wear protective gloves and protective goggles to ampoule time of the opening (Cutting method to check the label). Use with local exhaust ventilation.

#### Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

#### Safety handling precautions

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

### Storage

#### Safe storage conditions

**Storage conditions** Packed with an inert gas. Store away from sunlight in cold (-20°C). Keep container tightly closed. Store locked up.

**Safe packaging material** Ampoule

**Incompatible substances** Strong oxidizing agents

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

### Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Acetonitrile 75-05-8	N/A	N/A	TWA: 20 ppm Skin

Chemical Name	Concentration standard value set by the Minister of Health, Labor and Welfare (8hr)	Concentration standard value set by the Minister of Health, Labor and Welfare (Short-Term)
Acetonitrile 75-05-8	10 ppm	N/A
Carbaryl 63-25-2	0.5 mg/m <sup>3</sup>	N/A

### Personal protective equipment

**Respiratory protection** gas mask for organic gas ( JIS T 8152 )

<b>Hand protection</b>	chemical protective gloves ( JIS T 8116 )
<b>Eye protection</b>	protective eyeglasses or chemical safety goggles (JIS T 8147)
<b>Skin and body protection</b>	Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protective equipment to them.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Data except for the appearance is described as a solvent.

**Form**

<b>Color</b>	yellow
<b>Turbidity</b>	clear
<b>Appearance</b>	liquid
<b>Odor</b>	characteristic odor
<b>Melting point/freezing point</b>	-45 °C
<b>Boiling point, initial boiling point and boiling range</b>	82 °C
<b>Flammability</b>	Highly flammable liquid and vapor
<b>Evaporation rate:</b>	no data available
<b>Flammability (solid, gas):</b>	no data available
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper:</b>	16vol%
<b>Lower:</b>	4.4vol%
<b>Flash point</b>	9.5 °C / 49 °F
<b>Auto-ignition temperature:</b>	524 °C / 975 °F
<b>Decomposition temperature:</b>	no data available
<b>pH</b>	no data available
<b>Viscosity (coefficient of viscosity)</b>	no data available
<b>Dynamic viscosity</b>	no data available
<b>Solubilities</b>	No data available
<b>n-Octanol/water partition coefficient:(log Pow)</b>	no data available
<b>Vapour pressure</b>	9.7kPa
<b>Specific Gravity / Relative density</b>	0.780 - 0.784 g/mL
<b>Vapour density</b>	1.4(Air=1)
<b>Particle characteristics</b>	no data available

## Section 10: STABILITY AND REACTIVITY

**Stability**

<b>Reactivity</b>	no data available
<b>Chemical stability</b>	May be altered by light.
<b>Hazardous reactions</b>	None under normal processing
<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark
<b>Incompatible materials</b>	Strong oxidizing agents
<b>Hazardous decomposition products</b>	Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )

## Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
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Acetonitrile	>2,000 mg/kg ( Rat )	978.8 mg/kg ( Rabbit )	16,000 ppm ( Rat ) 4 h
Propaphos	72.5 mg/kg ( Rat )	72.0 mg/kg ( Rat )	0.039 mg/L ( Rat ) mist
Tolfenpyrad	75 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	1.50 mg/L 4 h (Rat)
Cypermethrin	195 mg/kg ( Rat )	> 5000 mg/kg ( Rat ) > 2400 mg/kg ( Rabbit )	1.26 mg/L ( Rat ) 4 h

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas-source information
Acetonitrile	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust-source information	Acute toxicity -inhalation mist-source information
Acetonitrile	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS Classification results.

**Skin irritation/corrosion**

Chemical Name	Skin corrosion/irritation source information
Acetonitrile	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.

**Serious eye damage/ irritation**

Chemical Name	Serious eye damage/irritation source information
Acetonitrile	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.

**Respiratory or skin sensitization**

Chemical Name	Respiratory or Skin sensitization source information
Acetonitrile	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

Chemical Name	germ cell mutagenicity source information
Acetonitrile	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.

**Carcinogenicity**

Chemical Name	Carcinogenicity source information
Acetonitrile	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)

Acetonitrile 75-05-8	-		A4	-
Tolfenpyrad 129558-76-5	-			-

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
Acetonitrile	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
Acetonitrile	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
Acetonitrile	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
Acetonitrile	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Acetonitrile	EC50 : <i>Pseudokirchneriella subcapitata</i> >700 mg/L 72 h	LC50 : <i>Oryzias latipes</i> >100 mg/L 96 h	LC50 : <i>Daphnia magna</i> >100 mg/L 96 h
Tolfenpyrad	ErC50 : <i>Chlorophyta</i> >0.76 mg/L 72 h	N/A	EC50 : <i>Daphnia magna</i> 0.001 mg/L 48 h
Cypermethrin	N/A	LC50 : <i>Oncorhynchus mykiss</i> 0.00283 mg/L 96 h	EC50 : <i>Gammarus fasciatus</i> 0.004 ug/L 96 h

**Other data**

Chemical Name	Short-term (acute) hazardous to the aquatic environment source information	Long-term (chronic) hazardous to the aquatic environment source information
Acetonitrile	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Tolfenpyrad	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

<b>Persistence and degradability</b>	No information available
<b>Bioaccumulative potential</b>	No information available
<b>Mobility in soil</b>	No information available

Hazard to the ozone layer No information available

### Section 13: DISPOSAL CONSIDERATIONS

#### Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### Section 14: TRANSPORT INFORMATION

#### ADR/RID

UN number	UN1648
Proper shipping name:	ACETONITRILE
UN classification	3
Subsidiary hazard class	
Packing group	II
Marine pollutant	Yes

#### IMDG

UN number	UN1648
Proper shipping name:	ACETONITRILE
UN classification	3
Subsidiary hazard class	
Packing group	II
Marine pollutant (Sea)	Yes
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

#### IATA

UN number	UN1648
Proper shipping name:	ACETONITRILE
UN classification	3
Subsidiary hazard class	
Packing group	II
Environmentally Hazardous Substance	Yes

### Section 15: REGULATORY INFORMATION

#### Japanese regulations

<b>Fire Service Act</b>	Category IV, Class I petroleum, dangerous grade 2 water-soluble
<b>Poisonous and Deleterious Substances Control Law</b>	Deleterious Substances 2nd. Grade
<b>Industrial Safety and Health Act</b>	Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57) Notifiable Substances (Law Art.57-2) Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4)
<b>Industrial Safety and Health Act (2024-)</b>	<b>【2024.4.1~】</b> Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1)
<b>Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc</b>	Priority Assessment Chemical Substances (Law Article 2, Para.5)
<b>Regulations for the carriage and storage of dangerous</b>	Flammable Liquids (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)



**goods in ship****Civil Aeronautics Law**

Flammable Liquids (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)

**Pollutant Release and Transfer**

Not applicable

**Register Law****(2023.4.1-)****Export Trade Control Order**

Appendix 2 Export Approval Item

Chemical Name	Poisonous and Deleterious Substances Control Law	Industrial Safety and Health Act Substances (Law Art.57-2)	Pollutant Release and Transfer Register Law (2023.4.1-)
Acetonitrile 75-05-8 ( 98 )	Applicable	Applicable	-
Propaphos 7292-16-2 ( 0.0020 )	Applicable	-	-
Tolfenpyrad 129558-76-5 ( 0.0020 )	Applicable	-	-
Cypermethrin 52315-07-8 ( 0.0020 )	Applicable	-	-
(Z)-Dimethylvinphos 67628-93-7 ( 0.0010 )	Applicable	-	-
(E)-Dimethylvinphos 71363-52-5 ( 0.0010 )	Applicable	-	-

## Section 16: OTHER INFORMATION

**Key literature references and sources for data etc.**

NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
 IATA dangerous Goods Regulations  
 RTECS:Registry of Toxic Effects of Chemical Substances  
 Japan Industrial Safety and Health Association GHS Model SDS  
 Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.  
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
 etc

**Record of SDS revisions**

The following contents were revised. Regulatory information.

**Disclaimer**

This SDS is according to JIS Z 7253: 2019. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GHS Classification is according to JIS Z 7252:2019. \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**