

SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision Date 30-Oct-2020
 Version 1.02

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name	29 Pesticides Mixture Standard Solution WQ-9 (each 20µg/mL Acetonitrile Solution)
Product code	164-28431,160-28433

Manufacturer	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-5964
Supplier	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
Emergency telephone number	+81-6-6203-3741 / +81-3-3270-8571
Recommended uses and restrictions on use	For research purposes Reference material (as defined in Japanese Industrial Standards (JIS) Q0030)

Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Flammable liquids	Category 2
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Vapors)	Category 4
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 1
Category 1 central nervous system, respiratory system	
Specific target organ toxicity (repeated exposure)	Category 2
Category 2 blood system, central nervous system, respiratory system, liver, kidneys	
Short-term (acute) hazardous to the aquatic environment	Category 1
Long-term (chronic) hazardous to the aquatic environment	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
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- 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)

- Wear protective gloves/protective clothing/eye protection/face protection
- Use only outdoors or in a well-ventilated area
- Wash face, hands and any exposed skin thoroughly after handling
- Do not breathe dust/fume/gas/mist/vapors/spray
- Do not eat, drink or smoke when using this product
- Avoid release to the environment
- Keep away from heat/sparks/open flames/hot surfaces. — 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

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 CO₂, dry chemical, or foam 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	公表	75-05-8
Paclobutrazol	0.0020	293.79	N/A	N/A	76738-62-0
Pyraclufos	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
1-Naphthyl Methylcarbamate	0.0020	201.22	(4)-387	公表	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	公表	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	公表	61949-77-7
Orysastrobins	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)-Orysastrobins	0.0010	N/A	N/A	N/A	N/A-16-2843-3

Impurities and/or Additives : Not applicable

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

Water spray (fog), Carbon dioxide (CO₂), Foam, Extinguishing powder, Sand

Unsuitable extinguishing media

No information available

Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Vapors may form explosive mixture 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). Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Storage

Safe storage conditions

Storage conditions

Container protected from light, and store tightly closed in freezer (-20°C). Packed with an inert gas. 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
Cadusafos 95465-99-9	N/A	N/A	TWA: 0.001 mg/m ³ inhalable fraction and vapor Skin

Personal protective equipment

Respiratory protection

gas mask for organic gas

Hand protection

Impermeable protective gloves

Eye protection

protective eyeglasses or chemical safety goggles

Skin and body protection

Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Data except for the appearance is described as a solvent.

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

Section 10: STABILITY AND REACTIVITY

Stability

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

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetonitrile	1315 mg/kg (Rat)	978.8 mg/kg (Rabbit)	16,000 ppm(Rat)4h
Cadusafos	679 mg/kg (Rat) 37.1 mg/kg (Rat) 391 mg/kg (Rat)	11 mg/kg (Rat)	32 mg/m ³ (Rat) 4 h
Propaphos	61 mg/kg (Rat) 72.5 mg/kg (Rat)	72 mg/kg (Rat) 88500 µg/kg (Rat)	N/A
Tolfenpyrad	72,2 mg/kg (Rat)	> 2000 mg/kg (Rat)	1.50 mg/L 4 h (Rat)
Cypermethrin	57.5 mg/kg (Rat)	> 5,000 mg/kg (Rat)	7889 mg/m ³ (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.
Cadusafos	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS

	classification results.	classification results.	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.
Cadusafos	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.
Cadusafos	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.
Cadusafos	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.
Cadusafos	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.
Cadusafos	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.
Cadusafos	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	-
Cadusafos 95465-99-9		Group 2A		

Propaphos 7292-16-2		Group 2A		
Tolfenpyrad 129558-76-5	-	Group 2A	-	-
Cypermethrin 52315-07-8		Group 2A		

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Acetonitrile	Based on the NITE GHS classification results.
Cadusafos	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.
Cadusafos	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.
Cadusafos	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.
Cadusafos	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 72h	LC50 : <i>Oryzias latipes</i> >100 mg/L 96h	LC50 : <i>Daphnia magna</i> >100 mg/L 96h
Cadusafos	N/A	N/A	LC50 : <i>Daphnia magna</i> 0.0016 mg/L 48h
Tolfenpyrad	ErC50 : <i>Chlorophyta</i> >0.76 mg/L 72h	N/A	N/A
Cypermethrin	N/A	N/A	EC50 : <i>Gammarus fasciatus</i> 0.004 ug/L 96h

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.
Cadusafos	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	Based on the NITE GHS classification

	results.	results.
Cypermethrin	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Persistence and degradability	No information available
Bioaccumulative potential	No information available
Mobility in soil	No information available
Hazard to the ozone layer	No information available
Mobility	

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

International Inventories

EINECS/ELINCS	-
TSCA	-

Japanese regulations

Fire Service Act	Category IV, Class I petroleums, dangerous grade 2 water-soluble
Poisonous and Deleterious Substances Control Law	Deleterious Substances 2nd. Grade
Industrial Safety and Health Act	Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57,

	Para.1, Enforcement Order Art.18) Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.15 Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4) Priority Assessment Chemical Substances (Law Article 2, Para.5)
Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc Regulations for the carriage and storage of dangerous goods in ship Civil Aeronautics Law	Flammable Liquids (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1) Flammable Liquids (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)
Pollutant Release and Transfer Register Law	Class 1
Class 1 - No.	13
Export Trade Control Order	Appendix 2

Chemical Name	Poisonous and Deleterious Substances Control Law	Industrial Safety and Health Act Substances (Law Art.57-2)	Pollutant Release and Transfer Register Law
Acetonitrile 75-05-8 (98)	Applicable	Applicable	Applicable
Cadusafos 95465-99-9 (0.0020)	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

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 Z7252(2019). *JIS: Japanese Industrial Standards

End of Safety Data Sheet