SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision date 28-Feb-2024
Revision Number 5.08

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	Pesticide Mixture Standard Solution PL-15-1 (each 20µg/mL Acetonitrile Solution)
Product Code	162-23971,168-23973

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 For research use only
Reference material (as defined in Japanese Industrial Standards (JIS) Q0030)

Restrictions on use Seek expert judgment when using for purposes other than those recommended.

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	

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
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
- 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

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	99	41.05	(2)-1508	*	75-05-8
Quizalofop-ethyl	0.0020	372.80	N/A	8-(2)-1247	76578-14-8
Hexythiazox	0.0020	352.88	(5)-5743	8-(7)-795	78587-05-0
Teflubenzuron	0.0020	381.11	N/A	4-(13)-161	83121-18-0
Lufenuron	0.0020	511.15	N/A	N/A	103055-07-8
Epoxiconazole	0.0020	329.76	N/A	N/A	106325-08-0
Dimethomorph	0.0020	387.86	N/A	8-(7)-1176	110488-70-5
2-Isopropylideneaminooxyethyl (R)-2-[4-(6-chloroquinoxarin-2-yloxy)phenoxy]propionate	0.0020	443.88	N/A	N/A	111479-05-1
Tebufenozide	0.0020	352.47	N/A	4-(7)-1685	112410-23-8
Aldicarb	0.0020	190.26	N/A	N/A	116-06-3
Novalron	0.0020	492.70	N/A	4-(13)-223	116714-46-6
Cyprodinil	0.0020	225.29	N/A	N/A	121552-61-2
(E)-Fenpyroximate	0.0020	421.49	N/A	8-(2)-1462	134098-61-6
Flufenacet	0.0020	363.33	N/A	8-(7)-1787	142459-58-3
(Z)-Fenpyroximate	0.0020	421.49	N/A	N/A	149054-53-5
Carbofuran	0.0020	221.25	(5)-5540	8-(4)-935	1563-66-2
Fenamidone	0.0020	311.4	N/A	8-(2)-2054	161326-34-7
Aldicarb sulfone	0.0020	222.26	N/A	N/A	1646-88-4
Monolinuron	0.0020	214.65	N/A	N/A	1746-81-2
2-Chloro-N-(4'-chloro[1,1'-biphenyl]-2-yl)-3-pyridin	0.0020	343.21	N/A	8-(1)-2887	188425-85-6

ecarboxamide					
Oxamyl	0.0020	219.26	N/A	N/A	23135-22-0
DCMU	0.0020	233.09	(3)-2194	4-(13)-42	330-54-1
Linuron	0.0020	249.09	(3)-2193	4-(13)-44	330-55-2
Tebuthiuron	0.0020	228.31	(5)-5242	*	34014-18-1
Diflubenzuron	0.0020	310.68	(3)-4384	4-(13)-113	35367-38-5
Fluridone	0.0020	329.32	N/A	N/A	59756-60-4
Carbaryl	0.0020	201.22	(4)-387	*	63-25-2
Triflumuron	0.0020	358.70	N/A	N/A	64628-44-0
Clofentezine	0.0020	303.15	N/A	8-(3)-738	74115-24-5

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. Get medical attention if irritation develops and persists

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 (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 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 contaminent and methods and materials for cleaning up
Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Recoverly, 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 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

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^3	N/A

Personal protective equipment

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

Hand protection chemical protective gloves (JIS T 8116)

Eye protection protective eyeglasses or chemical safety goggles (JIS T 8147)

Skin and body protection 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	
Color	red
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：	16%
Lower：	4.4%
Flash point	9.5 °C
Auto-ignition temperature:	524 °C
Decomposition temperature:	no data available
pH	no data available
Viscosity (coefficient of viscosity)	no data available
Dynamic viscosity	no data available
Solubilities	water , Alcohols : miscible .
n-Octanol/water partition coefficient:(log Pow)	no data available
Vapour pressure	9.7kPa
Specific Gravity / Relative density	0.78
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 monooxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx)

Section 11: TOXICOLOGICAL INFORMATION

Since data of the mixture is not available, data as each components are described.

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetonitrile	>2,000 mg/kg (Rat)	978.8 mg/kg (Rabbit)	16,000 ppm (Rat) 4 h
(E)-Fenpyroximate	245 mg/kg (Rat)	> 2000 mg/kg (Rat)	0.33 mg/L (Rat) 4 h 0.36 mg/L (Rat) 4 h
Oxamyl	5.4 mg/kg (Rat)	> 1200 mg/kg (Rat)	170 mg/m^3 (Rat) 1 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.
(E)-Fenpyroximate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Oxamyl	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.
(E)-Fenpyroximate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Oxamyl	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.
(E)-Fenpyroximate	Based on the NITE GHS classification results.
Oxamyl	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.
(E)-Fenpyroximate	Based on the NITE GHS classification results.
Oxamyl	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.
(E)-Fenpyroximate	Based on the NITE GHS classification results.
Oxamyl	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagencity source information
Acetonitrile	Based on the NITE GHS classification results.
(E)-Fenpyroximate	Based on the NITE GHS classification results.
Oxamyl	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Acetonitrile	Based on the NITE GHS classification results.
(E)-Fenpyroximate	Based on the NITE GHS classification results.
Oxamyl	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Acetonitrile 75-05-8	-		A4	-

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Acetonitrile	Based on the NITE GHS classification results.
(E)-Fenpyroximate	Based on the NITE GHS classification results.
Oxamyl	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.
(E)-Fenpyroximate	Based on the NITE GHS classification results.
Oxamyl	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.
(E)-Fenpyroximate	Based on the NITE GHS classification results.
Oxamyl	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Acetonitrile	Based on the NITE GHS classification results.
(E)-Fenpyroximate	Based on the NITE GHS classification results.
Oxamyl	Based on the NITE GHS classification results.

Section 12: ECOLOGICAL INFORMATION

Since data of the mixture is not available, data as each components are described.

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Acetonitrile	*EC50 : Pseudokirchneriella subcapitata >700 mg/L 72 h*	*LC50 : Oryzias latipes >100 mg/L 96 h*	*LC50 : Daphnia magna >100 mg/L 96 h*
(E)-Fenpyroximate	*N/A*	*N/A*	*EC50 : Daphnia magna 0.00328 mg/L 48 h*
Oxamyl	*N/A*	*LC50:Oncorhynchus mykiss 4.2 mg/L 96 h*	*EC50 : Daphnia magna 0.319 mg/L 48 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.
(E)-Fenpyroximate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Oxamyl	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

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 classfication 3
Subsidiary hazard class

Packing group	II
Marine pollutant	Not applicable

IMDG

UN number	UN1648
Proper shipping name:	ACETONITRILE
UN classfication	3
Subsidiary hazard class	
Packing group	II
Marine pollutant (Sea)	Not applicable
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 classfication	3
Subsidiary hazard class	
Packing group	II
Environmentally Hazardous Substance	Not applicable

Section 15: REGULATORY INFORMATION

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) Notifiable Substances (Law Art.57-2) Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4)
Industrial Safety and Health Act (2024~)	【2024.4.1~】Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1)
Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc	Priority Assessment Chemical Substances (Law Article 2, Para.5)
Regulations for the carriage and storage of dangerous goods in ship	Flammable Liquids (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
Civil Aeronautics Law	Flammable Liquids (Ordinance Art.194, MITL Nortification for Air Transportation of Explosives etc., Attached Table 1)
Marine Pollution Prevention Law	Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Z
Pollutant Release and Transfer Register Law (2023.4.1-)	Not applicable
Export Trade Control Order	Appendix 2 Export Approval Item
Air Pollution Control Law	Hazardous Air Pollutants

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 (99)	Applicable	Applicable	-
Oxamyl 23135-22-0 (0.0020)	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 Oraganic 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