



SAFETY DATA SHEET

According to JIS Z 7253:2019

Revision date 08-Nov-2023

Revision Number 2.03

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	Pesticide Mixture Standard Solution PL-3-3 (each 20µg/mL Acetone Solution)
Product Code	162-26673,166-26671

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

Reference material (as defined in Japanese Industrial Standards (JIS) Q0030)

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

Serious eye damage/eye irritation

Reproductive Toxicity

Specific target organ toxicity (single exposure)

Category 2

Category 2

Category 2

Category 2

Category 3 Respiratory irritation, Narcotic effects

Specific target organ toxicity (repeated exposure)

Category 1 central nervous system, respiratory system

Acute aquatic toxicity
Chronic aquatic toxicity
Category 1
Category 1

Pictograms



Hazard statements

H225 - Highly flammable liquid and vapor

H320 - Causes eye irritation

H361 - Suspected of damaging fertility or the unborn child

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H410 - Very toxic to aquatic life with long lasting effects

H400 - Very toxic to aquatic life

H372 - Causes damage to the following organs through prolonged or repeated exposure: central nervous system, respiratory system

Precautionary statements-(Prevention)

· Obtain special instructions before use

Category 1

- Do not handle until all safety precautions have been read and understood
- · Use personal protective equipment as required
- 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
- · Use only outdoors or in a well-ventilated area
- 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
- · Keep cool

Precautionary statements-(Response)

- IF exposed or concerned: Get medical advice/attention
- 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
- IF ÓN 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
- In case of fire: Use suitable extinguishing media for extinction
- Collect spillage

Precautionary statements-(Storage)

- Store in a well-ventilated place. Keep container tightly closed
- Store locked up

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
Acetone	<100	58.08	(2)-542	*	67-64-1
Cyhalothrin	0.0020	449.85	N/A	N/A	68085-85-8
3',4'-Dichloropropionanili de	0.0020	218.08	(3)-263	4-(7)-474	709-98-8
Pyridaben	0.0020	364.93	N/A	8-(2)-1439	96489-71-3
Tebuconazole	0.0020	307.82	(5)-6229	8-(3)-803	107534-96-3
Fipronil	0.0020	437.15	(5)-6414	N/A	120068-37-3
2-Chloro-4,6-bis(ethylam ino)-1,3,5-triazine	0.0020	201.66	(5)-3846	8-(3)-63	122-34-9
Quinoxyfen	0.0020	308.13	N/A	N/A	124495-18-7
Ethoprophos	0.0020	242.34	N/A	N/A	13194-48-4
Acetamiprid	0.0020	222.67	(5)-6415	N/A	160430-64-8
Phenisobromolate	0.0020	428.12	N/A	N/A	18181-80-1
Triazophos	0.0020	313.31	N/A	N/A	24017-47-8
Chlorpyrifos	0.0020	350.59	(5)-3724	8-(1)-1042	2921-88-2
Pirimiphos-methyl	0.0020	305.33	N/A	N/A	29232-93-7
Methyl parathion	0.0020	263.21	N/A	4-(9)-124 4-(9)-128	298-00-0
Diazinon	0.0020	304.35	(5)-923	*	333-41-5
Fenpropathrin	0.0020	349.42	(3)-4573	4-(7)-546	39515-41-8
Profenofos	0.0020	373.63	N/A	N/A	41198-08-7
Oxyfluorfen	0.0020	361.70	N/A	N/A	42874-03-3
Triadimefon	0.0020	293.75	N/A	8-(3)-551	43121-43-3

Chlorobenzilate	0.0020	325.19	(4)-156	*	510-15-6
Fenvalerate	0.0020	419.90	N/A	N/A	51630-58-1
Cypermethrin	0.0020	416.30	N/A	4-(7)-992	52315-07-8
Deltamethrin	0.0020	505.20	N/A	4-(7)-2105	52918-63-5
Bitertanol	0.0020	337.42	N/A	8-(3)-633	55179-31-2
Parathion	0.0020	291.26	N/A	4-(9)-244	56-38-2
Allethrin	0.0020	302.41	(9)-125	3-(3)-5	584-79-2
				3-(3)-42	
				3-(3)-82	
Flutolanil	0.0020	323.31	(3)-3925	N/A	66332-96-5

Note on ISHL No.:

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

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

^{*} in the table means announced chemical substances.

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 handand eye-wash facility. And display their position clearly.

Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Acetone 67-64-1	200ppm(470mg/m ³)	ISHL/ACL: 500 ppm	STEL: 500 ppm TWA: 250 ppm
2-Chloro-4,6-bis(ethylamino)-1, 3,5-triazine 122-34-9	N/A	N/A	TWA: 0.5 mg/m³ inhalable particulate matter TWA: 2 mg/m³ inhalable particulate matter
Chlorpyrifos 2921-88-2	N/A	N/A	TWA: 0.1 mg/m³ inhalable fraction and vapor Skin
Methyl parathion 298-00-0	N/A	N/A	TWA: 0.02 mg/m³ inhalable fraction and vapor Skin
Diazinon 333-41-5	TWA: 0.1 mg/m³ OEL Skin	N/A	TWA: 0.01 mg/m³ inhalable fraction and vapor Skin
Parathion 56-38-2	TWA: 0.1 mg/m³ OEL Skin	N/A	TWA: 0.05 mg/m³ inhalable fraction and vapor Skin
Flutolanil 66332-96-5	TWA: 10 mg/m³ OEL	N/A	N/A

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)
Diazinon 333-41-5	0.01 mg/m³	N/A

Personal protective equipment

Respiratory protection gas mask for organic gas (JIS T 8152) Hand protection chemical protective gloves (JIS T 8116) protective eyeglasses or chemical safety goggles Eye protection

Long-sleeved work clothes Skin and body protection

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form

Color colorless **Turbidity** clear **Appearance** liquid

characteristic odor Odor

Melting point/freezing point -95.3 °C 56 °C

Boiling point, initial boiling point and boiling range

Highly flammable liquid and vapor **Flammability**

Evaporation rate: no data available Flammability (solid, gas): no data available

Upper/lower flammability or

explosive limits

13.0 vol% Upper: 2.15 vol% Lower: -18 °C Flash point **Auto-ignition temperature:** 538 °C

Decomposition temperature: no data available no data available pН Viscosity (coefficient of viscosity) no data available

Dynamic viscosity no data available **Solubilities** water, Ethanol, Diethyl ether: freely soluble.

n-Octanol/water partition coefficient:(log Pow) -0.24Vapour pressure 24.7

Specific Gravity / Relative density 0.789 - 0.792 g/mL

Vapour density 2.0

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), Halides, Phosphorus oxide, Sulfur oxides (SOx)

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone	5800 mg/kg (Rat)	> 7400 mg/kg (Rabbit)	32000 ppm (Rat) 4 h(vapor)
Cyhalothrin	144 mg/kg (Rat)	> 2500 mg/kg (Rabbit)	83 mg/m³ (Rat) 4 h
3',4'-Dichloropropionanilide	840 mg/kg (Rat) 367 mg/kg (Rat)	4830 mg/kg (Rabbit)	2.8 mg/L (Rat)4 h
Pyridaben	570 mg/kg (Rat)	> 2 g/kg (Rabbit) > 2 g/kg (Rat) > 2000 mg/kg (Rat)	0.62 mg/L (Rat) 4 h
Tebuconazole	3352 mg/kg (Rat)	> 5000 mg/kg (Rat) > 5 g/kg (Rat)	> 371 mg/m³ (Rat)4 h > 5093 mg/m³ (Rat)4 h > 800 mg/m³ (Rat)4 h
Fipronil	97 mg/kg (Rat)	> 2000 mg/kg (Rat)	0.36 mg/L (Rat)4 h 0.42 mg/L (Rat)4 h 0.68 mg/L (Rat)4 h
2-Chloro-4,6-bis(ethylamino)-1, 3,5-triazine	971 mg/kg (Rat)	> 10200 mg/kg (Rabbit) > 5 g/kg (Rat)	9800 mg/m³(Rat)4 h
Quinoxyfen	>500 mg/kg (Rat)	>2000 mg/kg (Rabbit)	> 3.38 g/m³ (Rat) 4 h
Ethoprophos	33 mg/kg (Rat) 34 mg/kg (Rat)	8.5 mg/kg (Rabbit) 60 mg/kg (Rat) 2.4 mg/kg (Rabbit)	0.250 mg/L (Rat)4 h
Acetamiprid	146 mg/kg (Rat)	>2000 mg/kg (Rat)	N/A
Phenisobromolate	5000 mg/kg (Rat)	> 4 g/kg (Rat) 10200 mg/kg (Rabbit)	N/A
Triazophos	57 mg/kg (Rat)	1100 mg/kg (Rat)	280 mg/m ³ (Rat) 4 h
Chlorpyrifos	135 mg/kg (Rat) 82 mg/kg (Rat)	> 5000 mg/kg (Rabbit) 202 mg/kg (Rat) 2 g/kg (Rabbit)	> 200 mg/m³ (Rat) 4 h
Pirimiphos-methyl	1250 mg/kg (Rat)	> 2000 mg/kg (Rat) > 2000 mg/kg (Rabbit)	> 4.7 mg/L (Rat) 4 h
Methyl parathion	2.9 mg/kg (Rat)	6 mg/kg (Rat)	0.034 mg/L (Rat) 4 h
Diazinon	485 mg/kg (Rat)	3600 mg/kg (Rabbit)	3.10 mg/L (Rat) 4 h
Fenpropathrin	18 mg/kg (Rat)	> 2 g/kg (Rabbit) 870 mg/kg (Rat)	> 556 mg/m³ (Rat) 4 h (mist)
Profenofos	358 mg/kg (Rat) 510 mg/kg (Rat)	> 4000 mg/kg (Rat) 1610 mg/kg (Rat) 192 mg/kg (Rabbit)	3 g/m³ (Rat)4 h
Oxyfluorfen	5 g/kg (Rat)	> 10 g/kg (Rabbit)	N/A
Triadimefon	363 mg/kg (Rat)	> 5000 mg/kg (Rat)	> 0.48 mg/L (Rat)4 h
Chlorobenzilate	700 mg/kg (Rat)	> 1000 mg/kg (Rabbit)	N/A
Fenvalerate	363 mg/kg (Rat)	> 5000 mg/kg (Rat)	2.810 mg/L (Rat) 4 h
Cypermethrin	195 mg/kg (Rat)	> 5000 mg/kg (Rat) > 2400 mg/kg(Rabbit)	1.26 mg/L (Rat)4 h
Deltamethrin	9360 μg/kg (Rat)	> 800 mg/kg (Rat) 700 mg/kg (Rat) 2 g/kg (Rabbit)	785 mg/m³ (Rat) 2 h
Bitertanol	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	> 0.55 mg / L (Rat) 4 h
Parathion	6.85 mg/kg (Rat)	73 mg/kg (Rat)	0.03 mg/L (Rat) 4 h
Allethrin	709 mg/kg (Rat,male)	>2000 mg/kg (Rat)	>12 mg/L (Rat) 4h
Flutolanil	> 10,000 mg/kg (Rat)	> 5,000 mg/kg (Rat)	> 5.98 mg/L (Rat) 4 h

Chemical Name	Acute toxicity -oral- source	•	Acute toxicity -inhalation gas-
	information	information	source information
Acetone			Based on the NITE GHS
	classification results.	classification results.	classification results.
3',4'-Dichloropropionanilide	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Pyridaben	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
,	classification results.	classification results.	classification results.

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Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
A t			
Acetone	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
3',4'-Dichloropropionanilide	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Pyridaben	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Tebuconazole	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Fipronil	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
r -	classification results.	classification results.	classification results.
2-Chloro-4,6-bis(ethylamino)-1,3,5-t	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
riazine	classification results.	classification results.	classification results.
Ethoprophos	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
' '	classification results.	classification results.	classification results.
Acetamiprid	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
,	classification results.	classification results.	classification results.
Chlorpyrifos	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
J	classification results.	classification results.	classification results.
Pirimiphos-methyl	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Methyl parathion	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Diazinon	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
2.020	classification results.	classification results.	Classification results.
Fenpropathrin	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Profenofos	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
1 10.0.0.00	classification results.		classification results.

Chlorobenzilate	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Fenvalerate	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	Classification results.
Cypermethrin	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
21	classification results.	classification results.	Classification results.
Bitertanol	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Parathion	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Allethrin	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.
Flutolanil	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.

Skin irritation/corrosion

Skin corrosion/irritation source information
Based on the NITE GHS classification results.
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Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
Acetone	Based on the NITE GHS classification results.
3',4'-Dichloropropionanilide	Based on the NITE GHS classification results.
Pyridaben	Based on the NITE GHS classification results.
Tebuconazole	Based on the NITE GHS classification results.
Fipronil	Based on the NITE GHS classification results.
2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine	Based on the NITE GHS classification results.
Ethoprophos	Based on the NITE GHS classification results.
Acetamiprid	Based on the NITE GHS classification results.
Chlorpyrifos	Based on the NITE GHS classification results.
Pirimiphos-methyl	Based on the NITE GHS classification results.
Methyl parathion	Based on the NITE GHS classification results.
Diazinon	Based on the NITE GHS classification results.
Fenpropathrin	Based on the NITE GHS classification results.
Profenofos	Based on the NITE GHS classification results.
Chlorobenzilate	Based on the NITE GHS classification results.
Fenvalerate	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.
Bitertanol	Based on the NITE GHS classification results.
Parathion	Based on the NITE GHS classification results.
Allethrin	Based on the NITE GHS classification results.
Flutolanil	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
Acetone	Based on the NITE GHS classification results.
3',4'-Dichloropropionanilide	Based on the NITE GHS classification results.
Pyridaben	Based on the NITE GHS classification results.
Tebuconazole	Based on the NITE GHS classification results.
Fipronil	Based on the NITE GHS classification results.
2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine	Based on the NITE GHS classification results.
Ethoprophos	Based on the NITE GHS classification results.
Acetamiprid	Based on the NITE GHS classification results.
Chlorpyrifos	Based on the NITE GHS classification results.
Pirimiphos-methyl	Based on the NITE GHS classification results.
Methyl parathion	Based on the NITE GHS classification results.
Diazinon	Based on the NITE GHS classification results.
Fenpropathrin	Based on the NITE GHS classification results.
Profenofos	Based on the NITE GHS classification results.
Chlorobenzilate	Based on the NITE GHS classification results.
Fenvalerate	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.
Bitertanol	Based on the NITE GHS classification results.
Parathion	Based on the NITE GHS classification results.
Allethrin	Based on the NITE GHS classification results.
Flutolanil	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagencity source information
Acetone	Based on the NITE GHS classification results.
3',4'-Dichloropropionanilide	Based on the NITE GHS classification results.
Pyridaben	Based on the NITE GHS classification results.
Tebuconazole	Based on the NITE GHS classification results.
Fipronil	Based on the NITE GHS classification results.
2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine	Based on the NITE GHS classification results.
Ethoprophos	Based on the NITE GHS classification results.
Acetamiprid	Based on the NITE GHS classification results.
Chlorpyrifos	Based on the NITE GHS classification results.
Pirimiphos-methyl	Based on the NITE GHS classification results.
Methyl parathion	Based on the NITE GHS classification results.
Diazinon	Based on the NITE GHS classification results.
Fenpropathrin	Based on the NITE GHS classification results.
Profenofos	Based on the NITE GHS classification results.
Chlorobenzilate	Based on the NITE GHS classification results.
Fenvalerate	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.
Bitertanol	Based on the NITE GHS classification results.
Parathion	Based on the NITE GHS classification results.
Allethrin	Based on the NITE GHS classification results.
Flutolanil	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Acetone	Based on the NITE GHS classification results.
3',4'-Dichloropropionanilide	Based on the NITE GHS classification results.
Pyridaben	Based on the NITE GHS classification results.
Tebuconazole	Based on the NITE GHS classification results.
Fipronil	Based on the NITE GHS classification results.
2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine	Based on the NITE GHS classification results.
Ethoprophos	Based on the NITE GHS classification results.
Acetamiprid	Based on the NITE GHS classification results.
Chlorpyrifos	Based on the NITE GHS classification results.
Pirimiphos-methyl	Based on the NITE GHS classification results.
Methyl parathion	Based on the NITE GHS classification results.

Diazinon	Based on the NITE GHS classification results.
Fenpropathrin	Based on the NITE GHS classification results.
Profenofos	Based on the NITE GHS classification results.
Chlorobenzilate	Based on the NITE GHS classification results.
Fenvalerate	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.
Bitertanol	Based on the NITE GHS classification results.
Parathion	Based on the NITE GHS classification results.
Allethrin	Based on the NITE GHS classification results.
Flutolanil	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Cyhalothrin 68085-85-8		Group 2A		
Pyridaben 96489-71-3		Group 2A		
Fipronil 120068-37-3		Group 2A		
2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine 122-34-9		Group 3	A3	
Ethoprophos 13194-48-4		Group 2A		
Triazophos 24017-47-8		Group 2A		
Chlorpyrifos 2921-88-2		Group 2A		
Pirimiphos-methyl 29232-93-7		Group 2A		
Methyl parathion 298-00-0	-	Group 3	-	-
Diazinon 333-41-5		Group 2A		
Fenpropathrin 39515-41-8		Group 2A		
Profenofos 41198-08-7		Group 2A		
Triadimefon 43121-43-3		Group 2B		
Chlorobenzilate 510-15-6		Group 3		
Fenvalerate 51630-58-1		Group 3		
Cypermethrin 52315-07-8		Group 2A		
Deltamethrin 52918-63-5		Group 3		
Parathion 56-38-2		Group 2B		
Allethrin 584-79-2		Group 2A		

Reproductive toxicity

oproductive textenty			
Chemical Name	Reproductive toxicity source information		
Acetone	Based on the NITE GHS classification results.		
3',4'-Dichloropropionanilide	Based on the NITE GHS classification results.		
Pyridaben	Based on the NITE GHS classification results.		
Tebuconazole	Based on the NITE GHS classification results.		
Fipronil	Based on the NITE GHS classification results.		
2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine	Based on the NITE GHS classification results.		
Ethoprophos	Based on the NITE GHS classification results.		
Acetamiprid	Based on the NITE GHS classification results.		

Chlorpyrifos	Based on the NITE GHS classification results.
Pirimiphos-methyl	Based on the NITE GHS classification results.
Methyl parathion	Based on the NITE GHS classification results.
Diazinon	Based on the NITE GHS classification results.
Fenpropathrin	Based on the NITE GHS classification results.
Profenofos	Based on the NITE GHS classification results.
Chlorobenzilate	Based on the NITE GHS classification results.
Fenvalerate	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.
Bitertanol	Based on the NITE GHS classification results.
Parathion	Based on the NITE GHS classification results.
Allethrin	Based on the NITE GHS classification results.
Flutolanil	Based on the NITE GHS classification results.

STOT-single exposure

STOT-single exposure Chemical Name	STOT -single exposure- source information
Acetone	Based on the NITE GHS classification results.
3',4'-Dichloropropionanilide	Based on the NITE GHS classification results.
Pyridaben	Based on the NITE GHS classification results.
Tebuconazole	Based on the NITE GHS classification results.
Fipronil	Based on the NITE GHS classification results.
2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine	Based on the NITE GHS classification results.
Ethoprophos	Based on the NITE GHS classification results.
Acetamiprid	Based on the NITE GHS classification results.
Chlorpyrifos	Based on the NITE GHS classification results.
Pirimiphos-methyl	Based on the NITE GHS classification results.
Methyl parathion	Based on the NITE GHS classification results.
Diazinon	Based on the NITE GHS classification results.
Fenpropathrin	Based on the NITE GHS classification results.
Profenofos	Based on the NITE GHS classification results.
Chlorobenzilate	Based on the NITE GHS classification results.
Fenvalerate	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.
Bitertanol	Based on the NITE GHS classification results.
Parathion	Based on the NITE GHS classification results.
Allethrin	Based on the NITE GHS classification results.
Flutolanil	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Acetone	Based on the NITE GHS classification results.
3',4'-Dichloropropionanilide	Based on the NITE GHS classification results.
Pyridaben	Based on the NITE GHS classification results.
Tebuconazole	Based on the NITE GHS classification results.
Fipronil	Based on the NITE GHS classification results.
2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine	Based on the NITE GHS classification results.
Ethoprophos	Based on the NITE GHS classification results.
Acetamiprid	Based on the NITE GHS classification results.
Chlorpyrifos	Based on the NITE GHS classification results.
Pirimiphos-methyl	Based on the NITE GHS classification results.
Methyl parathion	Based on the NITE GHS classification results.
Diazinon	Based on the NITE GHS classification results.
Fenpropathrin	Based on the NITE GHS classification results.
Profenofos	Based on the NITE GHS classification results.
Chlorobenzilate	Based on the NITE GHS classification results.
Fenvalerate	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.
Bitertanol	Based on the NITE GHS classification results.
Parathion	Based on the NITE GHS classification results.
Allethrin	Based on the NITE GHS classification results.
Flutolanil	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Acetone	Based on the NITE GHS classification results.
3',4'-Dichloropropionanilide	Based on the NITE GHS classification results.
Pyridaben	Based on the NITE GHS classification results.
Tebuconazole	Based on the NITE GHS classification results.
Fipronil	Based on the NITE GHS classification results.
2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine	Based on the NITE GHS classification results.
Ethoprophos	Based on the NITE GHS classification results.
Acetamiprid	Based on the NITE GHS classification results.
Chlorpyrifos	Based on the NITE GHS classification results.
Pirimiphos-methyl	Based on the NITE GHS classification results.
Methyl parathion	Based on the NITE GHS classification results.
Diazinon	Based on the NITE GHS classification results.
Fenpropathrin	Based on the NITE GHS classification results.
Profenofos	Based on the NITE GHS classification results.
Chlorobenzilate	Based on the NITE GHS classification results.
Fenvalerate	Based on the NITE GHS classification results.
Cypermethrin	Based on the NITE GHS classification results.
Bitertanol	Based on the NITE GHS classification results.
Parathion	Based on the NITE GHS classification results.
Allethrin	Based on the NITE GHS classification results.
Flutolanil	Based on the NITE GHS classification results.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Acetone	N/A	LC50 : Fathead minnow >100 mg/L 96 h	N/A
3',4'-Dichloropropionanilide	EC50 : Lemna gibba 0.11 mg/L 14d	LC50 : Oncorhynchus mykiss 1.8 - 3 mg/L 96 h	EC50:Daphnia magna 6.7 mg/L 48 h
Pyridaben	N/A	LC50: Cyprinus carpio 0.00338 mg/L 96 h	N/A
Fipronil	ErC50 : Chlorophyta 0.074 mg/L	LC50 : Lepomis macrochirus 0.083 mg/L 96 h	N/A
2-Chloro-4,6-bis(ethylamino)-1, 3,5-triazine	N/A	LC50:Pimephales promelas 3.5 - 7.15 mg/L 96 h LC50:Lepomis macrochirus 9.9 - 26 mg/L 96 h LC50:Lepomis macrochirus 118 mg/L 96 h LC50:Poecilia reticulata 49 mg/L 96 h LC50:Oncorhynchus mykiss 56 mg/L 96 h LC50:Oncorhynchus mykiss 82 mg/L 96 h LC50:Oncorhynchus mykiss 10 mg/L 96 h	EC50:Daphnia magna 0.56 - 2.2 mg/L 48 h
Quinoxyfen	N/A	LC50: 0.27mg/L/96hr	N/A
Ethoprophos	N/A	LC50 : Lepomis macrochirus 2.07 mg/L 96 h	LC50 : Mysidopsis bahia 0.02 ppm 96 h
Triazophos	EC50 : 9.1 mg/L 72 h	LC50 : 0.038 mg/L 96 h	EC50 : 0.0026 mg/L 48 h
Chlorpyrifos	N/A	LC50:Oncorhynchus mykiss 0.002 - 0.032 mg/L 96 h LC50:Lepomis macrochirus 0.0047 - 0.0075 mg/L 96 h	EC50:Daphnia magna 0.00009 - 0.00012 mg/L 48 h EC50:Daphnia magna 0.00012 - 0.00023 mg/L 48 h

Pirimiphos-methyl Methyl parathion Diazinon	N/A N/A EC50:Desmodesmus subspicatus 17.3 mg/L 120 h EC50:Desmodesmus subspicatus 6.4 mg/L 168 h	LC50:Pimephales promelas 0.11 - 0.13 mg/L 96 h LC50:Oncorhynchus mykiss 0.001 mg/L 96 h LC50:Lepomis macrochirus 0.0013 mg/L 96 h LC50:Lepomis macrochirus 0.0026 mg/L 96 h LC50:Poecilia reticulata 0.00717 mg/L 96 h LC50:Cyprinus carpio 0.008 mg/L 96 h LC50:Oncorhynchus mykiss 0.011 mg/L 96 h LC50: Cyprinus carpio 0.679 mg a.i./L 96 h LC50:Pimephales promelas 4.7 mg/L 96 h LC50:Cyprinus carpio 3.43 mg/L 96 h LC50:Cyprinus carpio 3.43 mg/L 96 h LC50:Poecilia reticulata 4 mg/L 96 h LC50:Poecilia reticulata 4 mg/L 96 h LC50:Poecilia reticulata 3 mg/L 96 h LC50:Poecilia reticulata 0.8 mg/L 96 h LC50:Poecilia reticulata 0.8 mg/L 96 h LC50:Poecilia reticulata 3 mg/L 96 h LC50:Coprinus macrochirus 0.022 mg/L 96 h LC50:Oncorhynchus mykiss 0.09 mg/L 96 h LC50:Oncorhynchus mykiss 2.3 mg/L 96 h LC50:Pimephales promelas 3.4 - 5.2 mg/L 96 h	EC50: Daphnia magna 0.000314 mg a.i./L 48 h LC50: Daphnia magna 0.00014 mg/L 48 h EC50:Gammarus fasciatus 0.20 ppb
Fenpropathrin	N/A	LC50:Lepomis macrochirus 0.31 - 0.62 mg/L 96 h LC50:Oncorhynchus mykiss	N/A
Profenofos	N/A	0.0086 mg/L 24 h N/A	EC50 : Daphnia magna
Oxyfluorfen	N/A	LC50 : Lepomis macrochirus 0.2 mg/L 96 h	0.84 μg/L 48 h EC50 : Daphnia magna 0.5 mg/L 48 h
Triadimefon	EC50:Pseudokirchneriella subcapitata 0.72 - 1.1 mg/L 96 h static EC50:Desmodesmus subspicatus 1.71 mg/L 96 h static	LC50:Oncorhynchus mykiss 12 - 16 mg/L 96 h LC50:Oncorhynchus mykiss 3.3 - 5 mg/L 96 h LC50:Lepomis macrochirus 7 - 14.3 mg/L 96 h LC50:Lepomis macrochirus 9.7 - 12 mg/L 96 h LC50:Oncorhynchus mykiss 17.4 mg/L 96 h	EC50:Daphnia magna 1.2 - 2.1 mg/L 48 h EC50:Daphnia magna 11.3 mg/L 48 h
Chlorobenzilate	N/A	LC50 : Cyprinodon variegatus 0.88 mg/L 96 h	N/A
Fenvalerate	N/A	LC50:Cyprinus carpio 0.0027 mg/L 96 h	LC50: Mysidopsis bahia 0.008 ug/L 96 h

Cypermethrin	N/A	LC50 : Oncorhynchus mykiss	EC50 : Gammarus fasciatus
Оурсппсипп	///	0.00283 mg/L 96 h	0.004 ug/L 96 h
Deltamethrin	N/A	LC50 : rainbow trout	N/A
		0.0002 mg/L 96 h	
Bitertanol	N/A	LC50 : Cyprinus caprio	EC50 : Daphnia magna
		3.5 mg/L 96 h	7 mg/L 48 h
Parathion	EC50:Desmodesmus	LC50:Lepomis macrochirus	LC50 : Gammarus fasciatus
	subspicatus	0.01 - 0.032 mg/L 96 h	0.0009 mg/L 48 h
	10 mg/L 72 h	LC50:Pimephales promelas	_
	EC50:Pseudokirchneriella	0.24 - 1.03 mg/L 96 h	
	subcapitata	LC50:Oncorhynchus mykiss	
	3.59 mg/L 72 h	0.37 - 1.64 mg/L 96 h	
		LC50:Oncorhynchus mykiss	
		0.699 - 1.070 mg/L 96 h	
		LC50:Lepomis macrochirus	
		0.026 mg/L 96 h	
		LC50:Pimephales promelas	
		0.25 mg/L 96 h	
		LC50:Cyprinus carpio	
		0.85 mg/L 96 h	
Allethrin	N/A	LC50:Oncorhynchus kisutch	N/A
		0.0026 mg/L 96hr	
Flutolanil	N/A	LC50: Cyprinus carpio	N/A
		3.16 mg a.i./L 96 h	
		(a.i.: active ingredient)	

Other data

Chemical Name	Short-term (acute) hazardous to the aquatic environment source information	Long-term (chronic) hazardous to the aquatic environment source information
Acetone	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
3',4'-Dichloropropionanilide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Pyridaben	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Tebuconazole	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Fipronil	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Ethoprophos	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Acetamiprid	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Chlorpyrifos	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Pirimiphos-methyl	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Methyl parathion	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Diazinon	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Fenpropathrin	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Profenofos	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Chlorobenzilate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Fenvalerate	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.
Bitertanol	Based on the NITE GHS classification	Based on the NITE GHS classification

	results.	results.
Parathion	Based on the NITE GHS classification	Based on the NITE GHS classification
	results.	results.
Allethrin	Based on the NITE GHS classification	Based on the NITE GHS classification
	results.	results.
Flutolanil	Based on the NITE GHS classification	Based on the NITE GHS classification
	results.	results.

Persistence and degradability
Bioaccumulative potential
Mobility in soil
Hazard to the ozone layer

No information available
No information available
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 UN1090
Proper shipping name: Acetone
UN classfication 3

Subsidiary hazard class

Packing group II Marine pollutant Yes

IMDG

UN number UN1090
Proper shipping name: Acetone
UN classfication 3

Subsidiary hazard class

Packing group II Marine pollutant (Sea) Yes

Transport in bulk according to No information available

Annex II of MARPOL 73/78 and

the IBC Code

IATA

UN number UN1090
Proper shipping name: Acetone
UN classfication 3

Subsidiary hazard class

Packing group II Environmentally Hazardous Yes

Substance

Section 15: REGULATORY INFORMATION

Japanese regulations

Fire Service Act Category IV, Class I petroleums, dangerous grade 2 water-soluble

Poisonous and Deleterious Specified Poisonous Substances 1st. Grade

Substances Control Law

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 Oder Art.18-2 Attached Table

No.9)No.17

Class 2 Organic Solvents (Enforcement Order Attached Table No.6-2, Ordinance on

Prevention of Organic Solvent Poisoning Art.1, Para.1, Item 5)

Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1

Working Environment Evaluation Standards, Administrative Control Levels (Law

Art.65-2, Para.1)

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)

Flammable Liquids (Ordinance Art.194, MITL Nortification for Air Transportation of **Civil Aeronautics Law**

Explosives etc., Attached Table 1)

Marine Pollution Prevention

Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Z

Pollutant Release and Transfer Not applicable

Register Law (2023.4.1-)

Water Pollution Control Act

Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinace Designating

Wastewater Standards Art.1)

Specified substances(Law Art.2 Para.4, Enforcement Order Art.3-3) Appendix 2 Export Approval Item

Export Trade Control Order Narcotics and Psychotropics

Control Law

Air Pollution Control Law **Soil Contamination Control**

Law

Hazardous Air Pollutants

Designated Hazardous Substances

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-)
Acetone 67-64-1 (<100)	-	Applicable	-
Cyhalothrin 68085-85-8 (0.0020)	Applicable	-	-
Pyridaben 96489-71-3 (0.0020)	Applicable	-	-
Ethoprophos 13194-48-4 (0.0020)	Applicable	-	-
Methyl parathion 298-00-0 (0.0020)	Applicable	-	-
Fenvalerate 51630-58-1 (0.0020)	Applicable	-	-
Cypermethrin 52315-07-8 (0.0020)	Applicable	-	-
Deltamethrin 52918-63-5 (0.0020)	Applicable	-	-
Parathion 56-38-2 (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. Prodauct and company Identification. Fire fighting

measures. Exposure controls/personal protection. Toxicological information. Ecological information. 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