SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision date 08-Nov-2023
Revision Number 6.04

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	Pesticide Mixture Standard Solution PL-12-1 (each 20µg/mL Acetone Solution)
Product Code	161-23941,167-23943

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
Serious eye damage/eye irritation	Category 2B
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Category 3 Respiratory irritation, Narcotic effects	
Specific target organ toxicity (repeated exposure)	Category 1
Category 1 central nervous system, respiratory system	

Pictograms

Signal word Danger

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
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
- 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
- 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 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
- In case of fire: Use suitable extinguishing media for extinction

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
1,1-Dichloro-2,2-bis(4-ethylphenyl)ethane	0.0020	307.26	N/A	N/A	72-56-0
Propaphos	0.0020	304.34	N/A	N/A	7292-16-2
(RS)-2,4'-Difluoro-α-(1H-1,2,4-triazol-1-ylmethyl)benzhydryl Alcohol	0.0020	301.29	N/A	N/A	76674-21-0
CPCBS	0.0020	303.16	N/A	N/A	80-33-1
Clomazone	0.0020	239.70	N/A	N/A	81777-89-1
1-Naphthylacetamide	0.0020	185.22	N/A	N/A	86-86-2
4-Chlorobenzyl p-chlorophenyl sulfide	0.0020	269.19	N/A	N/A	103-17-3
Epoxiconazole	0.0020	329.76	N/A	N/A	106325-08-0
Carfentrazone-ethyl	0.0020	412.19	N/A	8-(3)-1016	128639-02-1
Picolinafen	0.0020	376.30	N/A	N/A	137641-05-5
Dicrotophos	0.0020	237.19	N/A	N/A	141-66-2
Cinidon-ethyl	0.0020	394.25	N/A	N/A	142891-20-1
Spirodiclofen	0.0020	411.32	N/A	8-(4)-1342	148477-71-8
Fenamidone	0.0020	311.4	N/A	8-(2)-2054	161326-34-7
Flufenpyr-ethyl	0.0020	408.73	N/A	N/A	188489-07-8
Formothion	0.0020	257.27	N/A	2-(7)-83	2540-82-1
Mecarbam	0.0020	329.37	N/A	2-(7)-80	2595-54-2
Nortron	0.0020	286.34	N/A	8-(4)-1865	26225-79-6
Phorate	0.0020	260.38	N/A	N/A	298-02-2
Ethylthiomethon	0.0020	274.40	N/A	2-(7)-79	298-04-4
Fenchlorphos	0.0020	321.55	(9)-604	*	299-84-3
Methoprene	0.0020	310.47	N/A	2-(6)-609	40596-69-8
Isazofos	0.0020	313.74	N/A	N/A	42509-80-8
Bromophos-ethyl	0.0020	394.05	N/A	N/A	4824-78-6

Carboxin	0.0020	235.30	N/A	N/A	5234-68-4
O,O-Diethyl O-(1,2,2,2-tetrachloroethyl)phosphorothioate	0.0020	336.00	N/A	N/A	54593-83-8

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

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
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
Acetone 67-64-1	200ppm(470mg/m^3)	ISHL/ACL: 500 ppm	STEL: 500 ppm TWA: 250 ppm
Carfentrazone-ethyl 128639-02-1	N/A	N/A	TWA: 1 mg/m^3 inhalable particulate matter
Dicrotophos 141-66-2	N/A	N/A	TWA: 0.05 mg/m^3 inhalable fraction and vapor Skin
Phorate 298-02-2	N/A	N/A	TWA: 0.05 mg/m^3 inhalable fraction and vapor Skin
Ethylthiomethon 298-04-4	N/A	N/A	TWA: 0.05 mg/m^3 inhalable fraction and vapor Skin
Fenchlorphos 299-84-3	N/A	N/A	TWA: 5 mg/m^3 inhalable fraction and vapor

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

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 the unlabeled form.

Form

Color	colorless
Turbidity	clear
Appearance	liquid
Odor	characteristic odor
Melting point/freezing point	-95.3 °C
Boiling point, initial boiling point and boiling range	56 °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:	13.0 vol%
Lower:	2.15 vol%
Flash point	-18 °C
Auto-ignition temperature:	538 °C
Decomposition temperature:	no data available
pH	no data available
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)	-0.24
Vapour 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), Sulfur oxides (SOx), Halides, Phosphorus oxide

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)
1,1-Dichloro-2,2-bis(4-ethylphenyl)ethane	6600 mg/kg (Rat)	N/A	N/A
Propaphos	72.5 mg/kg (Rat)	72.0 mg/kg (Rat)	0.039 mg/L (Rat) mist
(RS)-2,4'-Difluoro-α-(1H-1,2,4-triazol-1-ylmethyl)benzhydryl Alcohol	1140 mg/kg (Rat)	N/A	N/A
CPCBS	2 g/kg (Rat)	>10 g/kg (Rat)	N/A
Clomazone	1369 mg/kg (Rat)	> 2000 mg/kg (Rat)	4800 mg/m³ (Rat) 4 h
1-Naphthylacetamide	1690 mg/kg (Rat)	> 2 g/kg (Rabbit)	N/A
4-Chlorobenzyl p-chlorophenyl sulfide	2 g/kg (Rat)	N/A	N/A
Carfentrazone-ethyl	>5000 mg/kg (Rat)	>4000 mg/kg (Rat)	>5.09 g/m³ (Rat) 4 h
Picolinafen	>5000mg/kg (Rat)	>4000mg/kg (Rat)	>5.9 mg/L (Rat)

Dicrotophos	178 mg/kg (Rat)	168 mg/kg (Rabbit) 42 mg/kg (Rat) 225 mg/kg (Rabbit)	> 500 mg/m^3 (Rat) 4 h (mist)
Cinidon-ethyl	N/A	> 2200 mg/kg (Rat)	N/A
Spirodiclofen	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	5.03 mg/L (Rat) 4 h
Formothion	250 mg/kg (Rat)	> 1000 mg/kg (Rabbit) 353 mg/kg (Rat)	4500 mg/m^3 (Rat) 4 h
Mecarbam	23 mg/kg (Rat)	229 mg/kg (Rabbit) 380 mg/kg (Rat)	0.9 mg/L 4 h
Nortron	6400 mg/kg (Rat)	> 20050 mg/kg (Rabbit)	> 5.385 mg/L (Rat)
Phorate	1.5 mg/kg (Rat)	3.8 mg/kg (Rat)	0.0028 mg/L (Rat)
Ethylthiomethon	2.6 mg/kg (Rat) 4.2 mg/kg (Rat)	7.3 mg/kg (Rat) 6 mg/kg (Rat)	0.015 mg/L
Fenchlorphos	1492 mg/kg (Rat)	1600 mg/kg (Rabbit)	N/A
Methoprene	25 g/kg (Rat)	3000 mg/kg (Rabbit) 3 g/kg (Rabbit)	N/A
Isazofos	27 mg/kg (Rat)	118 mg/kg (Rat)	103 mg/m^3 (Rat) 4 h
Bromophos-ethyl	52 mg/kg (Rat)	500 mg/kg (Rabbit) 1 g/kg (Rat)	N/A
Carboxin	430 mg/kg (Rat)	> 4000 mg/kg (Rabbit) 1050 mg/kg (Rat) 8 g/kg (Rabbit)	> 20 g/m^3 (Rat) 1 h
O,O-Diethyl O-(1,2,2,2-tetrachloroethyl)phosphorothioate	2 mg/kg (Rat)	N/A	0.58 ppm (Rat) 4 h

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Acetone	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.
Carfentrazone-ethyl	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Fenchlorphos	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
Acetone	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.
Carfentrazone-ethyl	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Fenchlorphos	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
Acetone	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Carfentrazone-ethyl	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.
Fenchlorphos	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
Acetone	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Carfentrazone-ethyl	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.
Fenchlorphos	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.
Propaphos	Based on the NITE GHS classification results.
Carfentrazone-ethyl	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.
Fenchlorphos	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.
Propaphos	Based on the NITE GHS classification results.
Carfentrazone-ethyl	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.
Fenchlorphos	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Acetone	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Carfentrazone-ethyl	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.
Fenchlorphos	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
1,1-Dichloro-2,2-bis(4-ethylphenyl)ethane 72-56-0		Group 2A		
Propaphos 7292-16-2		Group 2A		
Dicrotophos 141-66-2		Group 2A		
Formothion 2540-82-1		Group 2A		
Mecarbam 2595-54-2		Group 2A		
Phorate 298-02-2	-	Group 2A	-	-
Ethylthiomethon 298-04-4		Group 2A		
Fenchlorphos 299-84-3	-	Group 2A	-	-
Isazofos 42509-80-8		Group 2A		
Bromophos-ethyl 4824-78-6		Group 2A		
O,O-Diethyl O-(1,2,2,2-tetrachloroethyl)phosphorothioate 54593-83-8		Group 2A		

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Acetone	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Carfentrazone-ethyl	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.
Fenchlorphos	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
Acetone	Based on the NITE GHS classification results.
Propaphos	Based on the NITE GHS classification results.
Carfentrazone-ethyl	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.
Fenchlorphos	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.
Propaphos	Based on the NITE GHS classification results.
Carfentrazone-ethyl	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.
Fenchlorphos	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Acetone	Based on the NITE GHS classification results.

Propaphos	Based on the NITE GHS classification results.
Carfentrazone-ethyl	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.
Fenchlorphos	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*
CPCBS	*N/A*	*LC50 : 0.7 mg/L 96 h*	*N/A*
Carfentrazone-ethyl	*N/A*	*LC50 : 1.6 mg/L 96 h*	*N/A*
Picolinafen	*EC50 : 0.000025 mg/L 72 h*	*LC50 : >0368 mg/L 96 h*	*EC50 : 0.45 mg/L 48 h*
Dicrotophos	*N/A*	*LC50 : 22.0 mg/L 96 h*	*EC50 : Daphnia magna 0.024 mg/L 48 h*
Cinidon-ethyl	*EC50 : 0.021 mg/L 72 h*	*N/A*	*N/A*
Spirodiclofen	*ErC50 : Raphidocelis subcapitata 0.0292 mg/L 96 h*	*LC50 : Oncorhynchus mykiss > 0.035 mg/L 96 h*	*EC50 : Daphnia magna > 0.0508 mg/L 48 h*
Flufenpyr-ethyl	*EC50 : Algae 0.012 mg/L 72 h*	*N/A*	*N/A*
Nortron	*EC50 : 3.9 mg/L 72 h*	*LC50 : Cyprinus carpio 10.92 mg/L 96 h* *LC50 : Oncorhynchus mykiss 20.2 mg/L 96 h* *LC50 : Lepomis macrochirus 21.2 mg/L 96 h*	*EC50 : 14 mg/L 48 h*
Phorate	*N/A*	*N/A*	*LC50 : Amphipods family 4 µg/L 96 h*
Ethylthiomethon	*N/A*	*LC50:Lepomis macrochirus 0.094 - 0.136 mg/L 96 h* *LC50:Oncorhynchus mykiss 0.2 - 5.5 mg/L 96 h* *LC50:Pimephales promelas 1.64 - 2.13 mg/L 96 h* *LC50:Poecilia reticulata 0.28 mg/L 96 h*	*EC50:Daphnia magna 0.033 mg/L 48 h* *EC50:Daphnia magna 0.75 ppb 48 h*
Fenchlorphos	*N/A*	*LC50 : Cutthroat Trout 171 ug/L 96 h*	*N/A*
Carboxin	*EC50:Chlorella vulgaris 1.9 mg/L 96 h*	*LC50:Lepomis macrochirus 1 - 1.4 mg/L 96 h* *LC50:Oncorhynchus mykiss 1.5 - 2.4 mg/L 96 h* *LC50:Oncorhynchus mykiss 1.6 - 2.5 mg/L 96 h* *LC50:Lepomis macrochirus 2.7 - 4.3 mg/L 96 h*	*EC50:Daphnia magna 73 - 97.6 mg/L 48 h* *LC50:Daphnia magna 54 mg/L 48 h* *EC50:Daphnia magna 57 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
Acetone	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.
Carfentrazone-ethyl	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Dicrotophos	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Spirodiclofen	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Mecarbam	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Phorate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Ethylthiomethon	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Fenchlorphos	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 UN1090
Proper shipping name: Acetone
UN classfication 3
Subsidiary hazard class
Packing group II
Marine pollutant Not applicable

IMDG
UN number UN1090
Proper shipping name: Acetone
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 UN1090
Proper shipping name: Acetone
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 3rd. 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 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 Item 4) 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)
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 Dangerous Substances
Pollutant Release and Transfer Register Law (2023.4.1-)	Not applicable
Export Trade Control Order	Appendix 2 Export Approval Item
Narcotics and Psychotropics Control Law	

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	-
Propaphos 7292-16-2 (0.0020)	Applicable	-	-
Mecarbam 2595-54-2 (0.0020)	Applicable	-	-
Ethylthiomethon 298-04-4 (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. Stability and reactivity. 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