SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision Date 14-Dec-2020
Version 2.02

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name	Flucythrinate Standard
Product code	069-02911

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 use only

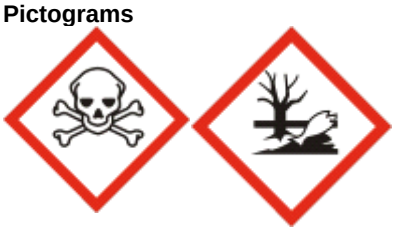
Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
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
H301 - Toxic if swallowed
H331 - Toxic if inhaled
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements-(Prevention)
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Avoid release to the environment

Precautionary statements-(Response)
- 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 SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Rinse mouth.

• Collect spillage

Precautionary statements-(Storage)

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

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 Substance

Formula C26H23F2NO4

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
Flucythrinate	98.0	451.46	N/A	N/A	70124-77-5

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.

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

Avoid contact with strong oxidizing agents. 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

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity)

Storage

Safe storage conditions

Storage conditions	Keep container protect from light tightly closed. Store in a cool (2-10 °C) place. Store locked up.
Safe packaging material	Glass
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	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Personal protective equipment

Respiratory protection	Protective mask
Hand protection	Protection 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

Form	
Color	slightly yellow - yellow
Appearance	liquid
Odor	characteristic odor
Melting point/freezing point	-5.5 °C
Boiling point, initial boiling point and boiling range	No data available
Flammability	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits	
Upper：	No data available

Lower：	No data available
Flash point	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH	No data available
Viscosity (coefficient of viscosity)	No data available
Dynamic viscosity	No data available
Solubilities	acetone : soluble . water : very slightly soluble.
n-Octanol/water partition coefficient:(log Pow)	4.74
Vapour pressure	1.0x10-7 Pa
Specific Gravity / Relative density	1.189 g/mL
Vapour density	No data available
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

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Flucythrinate	67mg/kg (rat)	> 1000 mg/kg (Rabbit) > 1 g/kg (Rabbit)	4,850 mg/m³ (rat) 4 h

Skin irritation/corrosion	No data available
Serious eye damage/ irritation	No data available
Respiratory or skin sensitization	No data available
Reproductive cell mutagenicity	No data available

Carcinogenicity

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Flucythrinate 70124-77-5		Group 2A		

Reproductive toxicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Flucythrinate	*N/A*	*LC50:Pimephales promelas 0.00017 - 0.00022 mg/L 96 h* *LC50:Pimephales promelas*	*LC50 : Gammarus fasciatus 0.055 ug/L 96 h*

		0.001 - 0.002 mg/L 96 h LC50:Cyprinus carpio 0.00049 - 0.00074 mg/L 96 h LC50:Lepomis macrochirus 0.00042 - 0.00055 mg/L 96 h LC50:Oncorhynchus mykiss 0.00025 - 0.0004 mg/L 96 h	

Other data No data available

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 UN3352
Proper shipping name: Pyrethroid pesticide, liquid, toxic (Flucythrinate)
UN classfication 6.1
Subsidiary hazard class
Packing group III
Marine pollutant Yes

IMDG
UN number UN3352
Proper shipping name: Pyrethroid pesticide, liquid, toxic (Flucythrinate)
UN classfication 6.1
Subsidiary hazard class
Packing group III
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 UN3352
Proper shipping name: Pyrethroid pesticide, liquid, toxic (Flucythrinate)
UN classfication 6.1
Subsidiary hazard class
Packing group III
Environmentally Hazardous Substance Yes

Section 15: REGULATORY INFORMATION

International Inventories
EINECS/ELINCS Listed
TSCA -

Japanese regulations
Fire Service Act Not applicable

Poisonous and Deleterious Substances Control Law	Deleterious Substances 3rd. Grade
Industrial Safety and Health Act	Not applicable
Regulations for the carriage and storage of dangerous goods in ship	Toxic Substances - Poison (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
Civil Aeronautics Law	Toxic and Infectious Substances (Ordinance Art.194, MITL Nortification for Air Transportation of Explosives etc., Attached Table 1)
Pollutant Release and Transfer Register Law	Not applicable
Export Trade Control Order	Not applicable

Chemical Name	Poisonous and Deleterious Substances Control Law	Industrial Safety and Health Act Substances (Law Art.57-2)	Pollutant Release and Transfer Register Law
Flucythrinate 70124-77-5 (98.0)	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

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