



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Pyriofenone technical (IKF-309)

Product use : Fungicide

Manufacturer : Company Name; ISHIHARA SANGYO KAISHA, LTD.
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2. HAZARDS IDENTIFICATION

GHS Classification

		Pyriofenone technical
Physical Hazards :		
	Explosives	Not applicable
	Flammable gases	Not applicable
	Flammable aerosols	Not applicable
	Oxidizing gases	Not applicable
	Gases under pressure	Not applicable
	Flammable liquids	Not applicable
	Flammable solids	Classification not possible
	Self-reactive substances and mixtures	Not applicable
	Pyrophoric liquids	Not applicable
	Pyrophoric solids	Not classified
	Self-heating substances and mixtures	Classification not possible
	Substances and mixtures which, in contact with water, emit flammable gases	Not classified
	Oxidizing liquids	Not applicable
	Oxidizing solids	Not applicable
	Organic peroxides	Not applicable
	Corrosive to metals	Classification not possible
Health Hazards :		
	Acute toxicity (oral)	Category 5
	Acute toxicity (dermal)	Category 5
	Acute toxicity (inhalation : gases)	Not applicable
	Acute toxicity (inhalation : vapor)	Classification not possible
	Acute toxicity (inhalation : dusts)	Category 5
	Acute toxicity (inhalation : mists)	Not applicable
	Skin corrosion/ irritation	Not classified



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Serious eye damage/ eye irritation	Not classified
Respiratory sensitization	Classification not possible
Skin sensitization	Category 1B
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity -Single exposure	Not classified
Specific target organ toxicity -Repeated exposure	Category 2 (kidney)
Aspiration hazards	Classification not possible
Environmental Hazards :	
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

GHS label elements, including precautionary statements.

Signal word: Warning

Pictograms or hazard symbols: (The name of the symbol)

Exclamation mark, Harmful to health, Dangerous for the environment



Hazard statements: May be harmful if swallowed, in contact with skin or if inhaled (H303+H313+H333)

May cause an allergic skin reaction (H317)

May cause damage to kidney through prolonged or repeated exposure (H373)

Toxic to aquatic life (H401)

Toxic to aquatic life with long lasting effects (H411)

Precautionary statements:

Safety measures

About the safety measures, refer to "7. HANDLING AND STORAGE", "8. EXPOSURE CONTROLS/ PERSONAL PROTECTION"

Do not breathe dust/vapours. (P260)

Contaminated work clothing should not be allowed out of the workplace. (P272)

Wear protective gloves. (P280)

Avoid release to the environment. (P273)

First-aid measures

About the First-aid measures, refer to "4. FIRST-AID MEASURES", "5. FIRE-FIGHTING MEASURES"

Call a POISON CENTER/doctor/physician if you feel unwell. (P312)

IF ON SKIN: Wash with plenty of soap and water. (P302+P352)

If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)



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Specific treatment (see "4. FIRST-AID MEASURES" on this label) (P321)

Wash contaminated clothing before reuse. (P363)

Collect spillage. (P391)

Handling and storage

About the Handling and storage, refer to "7. HANDLING AND STORAGE"

Disposal considerations

About the Disposal considerations, refer to "13. DISPOSAL CONSIDERATIONS"

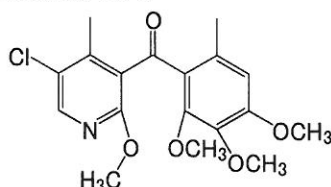
Dispose of contents/container with governmental and local regulations. (P501)

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Common Chemical Name : (5-chloro-2-methoxy-4-methyl-3-pyridyl)(4,5,6-trimethoxy- σ -tolyl)methanone

CAS Registry No. : 688046-61-9

Structural formula :



Ingredients Contributing to the Hazards :

<u>Component</u>	<u>Percent(w/w %)</u>
(5-chloro-2-methoxy-4-methyl-3-pyridinyl)	96.5
(4,5,6-trimethoxy- σ -tril)methanone	

4. FIRST-AID MEASURES

Call a POISON CENTER/doctor/physician if you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

EYE CONTACT : Rinse immediately with plenty of water for at least 15 minutes.

INHALATION : Move the victim to fresh air.

INGESTION : Wash out mouth immediately with plenty of water.

Wash contaminated clothing before reuse.

Collect spillage.

5. FIRE-FIGHTING MEASURES

Extinguishing Media : CO₂, foam, dry chemical, dry sand or water spray

Specific Hazards : Release of toxic fumes by heating and burning.

Protection of Firefighters: Positive pressure self-contained breathing apparatus (SCBA) and protective clothing



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6. ACCIDENTAL RELEASE MEASURES

Personal Precaution:

Avoid contact with the skin, eyes and clothing.

Environmental Precaution:

Do not release into the environment.

Methods for Cleaning Up:

Scoop up spills and place in a waste chemical container for disposal.

Chemical eye goggles, rubber gloves, a laboratory coat or apron should be worn while handling this chemical.

7. HANDLING AND STORAGE

Do not breathe dust/vapours.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective goods to avoid contact with skin, eyes or clothing.

Avoid release to the environment.

STORAGE : Store in a cool, dark place. Store in air-tight bag or containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures: Good industrial hygiene practice dictates that indoor work areas be isolated and provided with adequate local exhaust ventilation.

Control Parameters : Not established

Personal Protective Equipment

Respiratory protection : NIOSH-approved positive pressure self-contained breathing apparatus (SCBA), positive pressure airline respirator or respirator equipped with an organic vapor cartridge

Hand protection : Rubber gloves

Eye protection : Safety glasses, goggles, face shield

Skin and body protection : A laboratory coat, apron or boots should be worn while handling this chemical.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State : Solid (Powder)

Color : White

Odor : None

Boiling Point : No data available

Melting Point : 93~95 °C

Vapor pressure : 1.9×10^{-6} Pa (25°C)

Flash Point : No data available

Autoignition : No data available

Explosion Properties : No data available

Specific gravity : 1.33 g/cm³ (20 °C)



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Solubility in Water	: 1.56 mg/L (20 °C)
Soluble in	: Acetone >250 g/L (20°C), Methanol 22.3g/L (20°C), Ethyl acetate >250 g/L (20°C), Dichloroethan >250 g/L (20°C)
Log Pow	: 3.2 (20°C)

10. STABILITY AND REACTIVITY

Stability : Material is stable under normal conditions.

Condition and Materials to Avoid :

Keep away from : heat sources, ignition sources

Hazardous Decomposition Products :

On burning : release of toxic and corrosive gases / vapors

11. TOXICOLOGICAL INFORMATION

Acute Oral Effects : LD₅₀ (rat) > 2000 mg/kg (male & female)

Acute Dermal Effects : LD₅₀ (rat) > 2000 mg/kg (male & female)

Inhalation : LC₅₀ (rat, 4hrs) > 5.18mg/L (male & female)

Eye Effects : Non-irritating to eyes (rabbit)

Skin Effects : Non-irritating to skin (rabbit)

Contact Sensitization : Sensitizing to skin (guinea pig)
LLNA test: Negative

Mutagenicity : Negative

Toxic to Reproduction : Negative

Specific target organ toxicity -Single exposure:

There was no toxic effect at acute oral and dermal dose studies.

Specific target organ toxicity -Repeated exposure:

In a carcinogenetic study in rat, nephropathy was observed at 46.8 mg/kg.

Therefore Category 2 (kidney) was applied.

Aspiration hazard : No data available

12. ECOLOGICAL INFORMATION

Biodegradation : This chemical was not hydrolyzed in water at 50°C and pH 4-9.

Bioaccumulation : BCF_{ss}=160 (0.01mg/L), 142 (0.001mg/L)

Acute aquatic organism toxicity:

Carp (LC₅₀/96h) : >1.36 mg/L

Daphnia magna (EC₅₀/48h) : >1.55 mg/L

Pseudokirchneriella subcapitata (ErC₅₀/72h) : 1.77 mg/L

Chronic aquatic organism toxicity:

Carp (NOEC) : 1.36 mg/L

Daphnia magna (NOEC) : ≥ 1.55 mg/L

Pseudokirchneriella subcapitata (NOECr) : 0.249 mg/L

13. DISPOSAL CONSIDERATIONS

Incinerate in incinerator equipped with an acid absorbed scrubber, because toxic gas



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is generated when incinerating.

Dispose of contents/container with governmental and local regulations.

14. TRANSPORT INFORMATION :

UN number : 3077

UN proper shipping name: Environmentally hazardous substance, solid, n.o.s

Transport hazard class : 9

Packing group : III

Environmental hazards : Environmentally hazardous substance mark - yes

15. REGULATORY INFORMATION

Comply with governmental and local regulations.

International inventories:

EINECS Status : On the inventory, or in compliance with the act.

AICS Status : On the inventory, or in compliance with the act.

DSL Status : On the inventory, or in compliance with the act.

ENCS (JP) Status : On the inventory, or in compliance with the act.

KECI (KR) Status : On the inventory, or in compliance with the act.

PICCS (PH) Status : On the inventory, or in compliance with the act.

IECSC (CN) Status : On the inventory, or in compliance with the act.

16. OTHER INFORMATION

All information contained in this Material Safety Data Sheet is furnished free of charge and intend for your evaluation. In our opinion, the information is, as of the date of this Material Safety Data Sheet, reliable; however, it is your responsibility to determine the suitability of the information for your use. You are advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional or variable conditions or circumstances exist or because of applicable laws or government regulations. Therefore, you should use this information only as a supplement to other information gathered by you; and you must make independent determinations of the suitability and completeness of the information from all sources to assure both proper use of the material described herein and the safety and health of employees. Accordingly, no



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