



Safety Data Sheet

SDS No.:
SDS-P/EC-S/08

Sumithion 50 EC

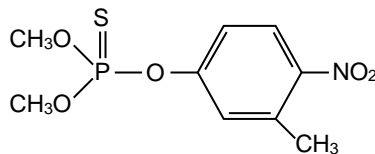
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Section 1: Identification of the Hazardous Chemical and of the Supplier

1.1 Product Identifier

Product Name: Fenitrothion 50% EC
Trade Name: Sumithion 50 EC
Active Ingredient: O,O-dimethyl O-(3-methyl-4-nitrophenyl) phosphorothioate
CAS No.(AI): 122-14-5
Structural Formula:



Recommended Usage: Insecticide

1.2 Supplier's Information

Address: Agricultural Chemicals (M) Sdn. Bhd.
962, Lorong Perusahaan 8
Taman Perindustrian Perai
13600 Perai, Pulau Pinang
Malaysia
Tel.: +6-04-3907988
Fax: +6-04-3905703
Web: www.agrichem.com.my
Emergency Phone: +6-04-3907988

Section 2: Hazard Identification

Classification: Flammable Liquids, category 3
Acute Toxicity (Oral), category 4
Acute Toxicity (Dermal), category 4
Acute Toxicity (Inhalation), category 4
Skin Irritation, category 2
Carcinogenicity, category 2
Specific Target Organ Toxicity - Single Exposure,
category 1 (Nervous System)
Specific Target Organ Toxicity - Repeated Exposure,
category 1 (Nervous System)
Hazardous to the Aquatic Environment-Acute Hazard, category 1
Hazardous to the Aquatic Environment-Chronic Hazard, category 1

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Pictogram:



Signal Word:

Danger

Hazard Statement:

H226	Flammable liquid and vapour
H302 + H312 + 332	Harmful if swallowed, in contact with skin or inhaled
H315	Causes skin irritation
H351	Suspected of causing cancer
H370	Cause damage to nervous system
H372	Causes damage to nervous system through prolonged or repeat exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary Statement:

Prevention:

P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe mist/vapours.
P270	Do not eat, drink, or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P307 + P311	IF exposed: Call a POISON CENTER or doctor/physician.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P391	Collect spillage.

Storage:

P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of contents/container appropriately in accordance with local/regional/national/ international regulations.
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Section 3: Composition and Information of the Ingredients of the Hazardous Chemical

Component	CAS No.	Weight, %	Hazard Code
Fenitrothion Technical	122-14-5	50	H302, H311, H370, H372, H400, H410
Surfactant	-	<10	H351, H412
Xylene	1330-20-7	Balance	H226, H312+H332, H315

Section 4: First-aid Measures

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

Inhalation:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin Contact:	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.
Eye Contact:	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.
Ingestion:	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.
Symptoms:	For Xylene: blurred vision, incoordination, headache, nausea, vomiting, dizziness, weakness anemia, prolonged or repeated exposure to skin causes defatting and dermatitis.
Notes to Physician:	For fenitrothion technical: atropine sulfate or pralidoxime iodide (PAM) is recommended to acute poisoning, as treatment strategy.

Section 5: Fire-fighting Measures

Suitable Extinguishing Media:	Carbon dioxide (CO ₂), dry chemical powder, water spray.
Specific Hazard During Fire:	No data available.
Special Protective Equipment:	Fire fighters should wear full-faced self-contained breathing apparatus and protective clothing.

Section 6: Accidental Release Measures

Personal Precautions:	Wear protective gloves/protective clothing/eye protection/face protection.
Environmental Precautions:	Avoid release to the environment.



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Method for Cleaning Up: Evacuate non-essential personnel. Eliminate ignition source. Ventilate area. Absorb spills with inert material such as clay, sand, earth, sawdust etc. and collect in a drum. Cover up the contaminated area with household detergent and a small amount of water. Brush the slurry and spread inert absorbents on the slurry liquid and collect the absorbed material in a drum. Seal drum and dispose of. Do not contaminate water resources.

Section 7: Handling and Storage

Precautions for Safe Handling: Wear protective gloves/protective clothing/eye protection/face protection. Wash skin thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid breathing mist or vapours. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

Conditions for Safe Storage: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Incompatibles: Strong oxidizers.

Section 8: Exposure Control and Personal Protection

Exposure Limit:

Source	Component	CAS No.	Limit	
-	Xylene	-	TWA	200 mg/m ³ (46 ppm)
ACGIH (2002)	Ethyl Benzene (component in Xylene)	-	TWA	100 ppm (434 mg/m ³)
			STEL	125 ppm (543 mg/m ³)
	Xylene (mixed isomers)	-	TWA	100 ppm (434 mg/m ³)
			STEL	150 ppm (651 mg/m ³)
JSOH (2013)	Surfactant (As 1,2,4- Trimethylbenzene)	-	OEL	25ppm, 120mg/m ³
ACGIH (2005) TLV-TWA	Surfactant (As Trimethylbenzene)	-	TWA	25ppm

Engineering Control: Local exhaust ventilation.

Individual Protection Measure: Wash hands thoroughly after handling. Do not breathe mist or vapours. Use personal protective equipment as required.

Personal Protective Equipment:

Eye Protection: Wear eye protection, goggles.

Skin Protection: Wear protective gloves and protective clothing.

Respiratory Protection: Wear face protection, pesticide respiratory masks.

Section 9: Physical and Chemical Properties

Appearance: Yellowish liquid
Odour: Characteristic odour
Odour Threshold: No data available
pH: 3 – 7 (10% Emulsion)



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Melting/Freezing Point:	No data available
Initial Boiling Point:	No data available
Boiling Range:	140 - 145°C (13.3 Pa) (Fenitrothion Technical) 137 - 143°C (Xylene)
Flash Point:	33°C
Evaporation Rate:	No data available
Flammability:	Flammable liquid and vapour
Upper Flammability Limit:	No data available
Lower Flammability Limit:	No data available
Vapour Pressure:	0.00157 Pa (25°C) (Fenitrothion Technical) 0.86 kPa (20°C) (Xylene)
Vapour Density:	No data available
Relative Density:	No data available
Solubility in Water:	Miscible with water
Partition Coefficient P _{o/w} :	3.43 (20°C) (Fenitrothion Technical)
Auto-ignition Temperature:	299 ± 5°C (Fenitrothion Technical) >450°C (Xylene)
Decomposition Temperature:	Approximately 210°C (Fenitrothion Technical)
Viscosity:	No data available

Section 10: Stability and Reactivity

Reactivity:	No data available.
Chemical Stability:	Stable under normal conditions.
Hazardous Reaction:	No data available.
Condition to Avoid:	Direct sunlight, heat and extreme temperature.
Incompatible Material:	Strong oxidizers.
Hazardous Decomposition Product:	No data available.

Section 11: Toxicological Information

If the data of this product are not available, the data of ingredients is displayed.

Component: Fenitrothion Technical

Acute Toxicity:

Oral, LD ₅₀ :	330 mg/kg (Rat)
Dermal, LD ₅₀ :	890 mg/kg (Rat)
Inhalation, LC ₅₀ (dust/mist):	>2.210 mg/L (Rat) (4h)

Skin Corrosion/Irritation:	Rabbit (skin irritation/corrosion test): not irritating
Serious Eye Damage/Eye Irritation:	Rabbit (eye irritation/corrosion test): mildly irritating
Respiratory Sensitizer/Skin Sensitizer:	Guinea pig skin sensitizer (Buehler test): non-sensitizer
Germ Cell Mutagenicity:	
in vitro:	Ames test (S.typhimurium and E. coli): negative Chromosome aberration test (chinese hamster cell): negative



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in vivo:	Gene mutation test (chinese hamster cell): negative Micronucleus test (mouse, oral, bone marrow): negative Dominant lethal test (rodents): negative
Carcinogenicity:	Rat carcinogenicity study (diet): non-carcinogenic Mouse carcinogenicity study (diet): non-carcinogenic
Reproductive Toxicity:	
Teratogenicity:	Rat teratology study (oral): non-teratogenic Rabbit teratology study (oral): non-teratogenic
Reproduction:	Rat two-generation reproductive toxicity study (diet): No effect on reproduction
Specific Target Organ Toxicity – Single Exposure:	Rat acute toxicity study (oral): nervous system
Specific Target Organ Toxicity – Repeated Exposure:	Rat 6-month subchronic toxicity study (diet): nervous system Rat 90-day repeated dose toxicity study (diet): nervous system Rabbit 21-day repeated dose toxicity study (dermal): nervous system

Component: Xylene

Carcinogenicity: Contains ethylbenzene. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans.

Component: Surfactant (contains Petroleum Hydrocarbon and Aromatic Solvent)

Acute Toxicity:

Petroleum Hydrocarbon:

Oral, LD₅₀: >48000 mg/kg (Rat, Jet propulsion fuel)
>5000 mg/kg (Rat, straight run kerosene)
Dermal, LD₅₀: >2000 mg/kg (Rabbit, straight run kerosene)
Inhalation, LC₅₀: In the inhalation administration test (GLP) using rat, the death to exposure a straight run kerosene by 5.28 mg/L doesn't admitted

Aromatic solvent:

Oral, LD₅₀: >3000 mg/kg (Rat)
Dermal, LD₅₀: >3160 mg/kg (Rabbit)
Inhalation, LC₅₀: 6193 mg/m³ (Rat, 4h)

Skin Corrosion/Irritation:

Petroleum Hydrocarbon: It admitted to irritate by the person's contact to skin
Aromatic solvent: Mildly irritating to skin with prolonged exposure

Serious Eye Damage/Eye Irritation:

Petroleum Hydrocarbon: Non-irritating to eye
Aromatic solvent: May cause mild, short-lasting discomfort to eyes

Skin Sensitization:

Petroleum Hydrocarbon: Non-sensitizer in guinea pig Buehler test (GLP)



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Germ Cell Mutagenicity:

Petroleum Hydrocarbon: The result of the chromosomal aberration test using mouse bone-marrow cells, which is an in vivo mutagenicity test, is positive for Jet fuel A and negative for kerosene

Carcinogenicity:

Petroleum Hydrocarbon: IARC; Group 3 (Jet fuel (Kerosene, 8008-20-6 and Distillate (light) fuel oils)); ACGIH; A3 (Kerosene and jet fuels)

Reproductive Toxicity:

Petroleum Hydrocarbon: The reproductive toxicity was not admitted by dosage test using pregnant rat, but no data on the influence of parental rat

Specific Target Organ Toxicity

- Single Exposure:

Petroleum Hydrocarbon: Central nervous system depression effect and dizziness is observed in the human exposure, and respiratory irritation was observed in inhalation exposure test using mouse

Aromatic solvent: Classified as category 3

Aspiration Hazard:

Petroleum Hydrocarbon: May cause aspiration and chemical pneumonia if swallowed

Aromatic solvent: Classified as category 1

Symptoms:

For Xylene: blurred vision, incoordination, headache, nausea, vomiting, dizziness, weakness anemia, prolonged or repeated exposure to skin causes defatting and dermatitis.

Section 12: Ecological Information

Ecotoxicity:

Component: Fenitrothion Technical

Acute toxicity:

Fish: Common Carp, LC ₅₀ (96h)	3.55 mg/L
Rainbow Trout, LC ₅₀ (96h)	1.3 mg/L
Bluegill Sunfish, LC ₅₀ (96h)	2.5 mg/L
Crustacea: <i>Daphnia magna</i> , EC ₅₀ (48h)	0.0045 mg/L
Alga: Green alga, ErC ₅₀ (0-72h)	2.73 mg/L

Chronic toxicity:

Fish: Rainbow Trout, NOEC	0.088 mg/L
Crustacea: <i>Daphnia magna</i> , NOEC	0.087 mg/L
Alga: Green alga, NOECr	0.78 mg/L

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.



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Mobility in Soil: No data available.
Other Adverse Effect: No data available.

Section 13: Disposal Information

Dispose of contents/container appropriately in accordance with local/regional/national/international regulations.

Section 14: Transportation Information

Land (ADR/RID)

Proper Shipping Name	Pesticide, Liquid, Toxic, Flammable, N.O.S. flashpoint not less than 23°C
Hazard Class	6.1
Hazchem Code	-
UN number	2903
Packing Group	III
Label/Mark	6(3)

Sea (IMDG)

Proper Shipping Name	Pesticide, Liquid, Toxic, Flammable, N.O.S. flashpoint not less than 23°C
Hazard Class	6.1
UN Number	2903
Packing Group	III
Marine Pollutant	-
Label	6(3)
Transport Document Name	-

Air (IATA)

Proper Shipping Name	Pesticide, Liquid, Toxic, Flammable, N.O.S. flashpoint not less than 23°C
Hazard Class	6.1
UN number	2903
Packing Group	III
Label/Mark	6(3)
Transport Document Name	-

Section 15: Regulatory Information

Classification: Flammable Liquids, category 3
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Acute Toxicity (Dermal), category 4
 Acute Toxicity (Inhalation), category 4
 Skin Irritation, category 2
 Carcinogenicity, category 2
 Specific Target Organ Toxicity - Single Exposure,
 category 1 (Nervous System)
 Specific Target Organ Toxicity - Repeated Exposure,
 category 1 (Nervous System)
 Hazardous to the Aquatic Environment-Acute Hazard, category 1
 Hazardous to the Aquatic Environment-Chronic Hazard, category 1

Signal Word: Danger

Pictogram:



Pesticides Act: Class II
 Classification: Poisonous

Section 16: Other Information

Date of Preparation: 18 November 2015
 Date of Revision: 21 April 2020
 Reference Document: ICOP on Chemicals Classification and Hazard Communication 2014
 GHS Purple Book

Disclaimer: To the best of our knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein.