

MATERIAL SAFETY DATA SHEET

Introductory Details

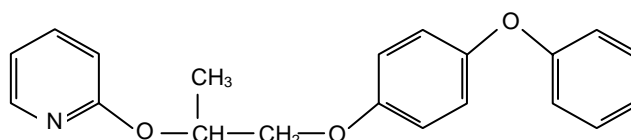
Page 1 of total 6

Date of preparation : 28 December 2007

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Details

Product Name : Pyriproxyfen 10% EC, S-71639 10EC
Trade Name : ADMIRAL 10EC
Chemical Name : 4-Phenoxy phenyl (RS)-2-(2-pyridyloxy) propyl ether
Chemical Formula : $C_{20}H_{19}NO_3$
Molar Mass : 321
Chemical Family : Pyridene compound
Manufacturer's Code : E06-1
Use : Insecticide
Structural Formula :



Pyriproxyfen

1.2 Company Identification

Manufacturer : Available upon request

Importer/Distributor

Name and Address : Agricultural Chemicals (M) Sdn. Bhd.
962, Lorong Perusahaan 8,
Taman Perindustrian Perai,
13600 Perai, Pulau Pinang, MALAYSIA.

Telephone Number : 604-390 7988

Emergency Telephone Number : 604-390 7988

1.3 Contact Point

Designation : Ms. Cheong Wai Ching, Product Support Manager /
En. Labib bin Yusof, Administrative Assistant
Tel. No. : 604-390 7988

MATERIAL SAFETY DATA SHEET

Introductory Details

Page 2 of total 6

Date of preparation : 28 December 2007

SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENT

Chemical Name	CAS No.	Proportion	Exposure Limit	Toxicity Data
4-Phenoxy phenyl (RS)-2-(2-pyridyloxy) propyl ether	95737-68-1	10% w/w	No data available	Refer Section 11
Solvent	-	Balance		

SECTION 3 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Colourless or pale yellow transparent liquid
Odour	: Slightly characteristic odour
Solubility	: Emulsifiable in water
Boiling Point	: Not applicable
Melting Point (°C)	: Not applicable
Vapour Pressure	: Not applicable
Percentage Volatiles	: No data available
Evaporation Rate	: No data available
Vapour Density	: No data available
Specific Gravity	: No data available
Flash Point	: 66.8°C
Autoignition temperature	: No data available
Flammable Limit	: No data available
Flammability	: No data available
Explosive Properties	: No data available
Explosion Limits	: Not applicable
Oxidizing Properties	: No data available
Density / Bulk Density	: 0.914 – 0.934 (20°C)
pH Value	: 4 - 7
Partition coefficient n-octanol/water	: No data available

SECTION 4 : HAZARD IDENTIFICATION

Harmful by inhalation

Irritating to skin

Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment

Warning: substance is not yet fully evaluated

MATERIAL SAFETY DATA SHEET

Introductory Details

Page 3 of total 6

Date of preparation : 28 December 2007

SECTION 5 : FIRST AID MEASURES

Ingestion : In case this material is swallowed, consult a doctor as soon as possible.
Eye contact : Rinse immediately for at least 15 minutes with a large volume of water.
Skin contact : Remove contaminated clothing immediately and wash skin thoroughly with soap and water.
Inhalation : No data available

SECTION 6 : FIRE FIGHTING MEASURES

Extinguishing Media : Dry chemical powder, carbon dioxide.
Large fire: form, waterspray.
Fire fighting instruction : Fire fighters should wear full-faced self-contained breathing apparatus and protective clothing.
Special hazards : None known
Hazardous decomposition / combustion products : Toxic and corrosive products such as NO_x, CO
Other information : Water used to extinguish a fire should not be allowed to enter the drainage system or water courses.

SECTION 7 : ACCIDENTAL RELEASE MEASURE

Leak and/or Spill :

Wear protective clothing as indicated in Section 8. Evacuate non essential personnel. Adsorb the spillage with inert material such as clay, sand, white carbon etc. Collect the adsorbed material into a clean container for disposal as scheduled waste. Wash the contaminated area with a little water and detergent. Adsorb with inert material and collect into the same container. Wash the area and drain the water to Wastewater Treatment Plant.

SECTION 8 : HANDLING AND STORAGE

Handling : Read the label before use. Wear protective clothing, gloves, goggles and pesticide respiratory masks while handling. The usual precautions for handling chemicals should be observed.
Storage : Keep in original containers, tightly closed, in a cool, dry and well-ventilated place. Keep away from heat. Do not store with animal feeds or foodstuff. Keep out of reach of children or farm animals.

MATERIAL SAFETY DATA SHEET

Introductory Details

Page 4 of total 6

Date of preparation : 28 December 2007

SECTION 9 : EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure Limit : No exposure limits have been established for this material.
Engineering measures : Provide adequate ventilation.
Personal protection : Wear protective clothing, gloves, goggles and pesticide respiratory masks while handling. The usual precautions for handling chemicals should be observed.

SECTION 10 : STABILITY AND REACTIVITY

Conditions to avoid : Direct sunlight, heat and extreme temperature
Incompatibles : Alkaline materials, oxidizing agents
Decomposition Products : Toxic and corrosive products such as NO_x, CO
Hazardous polymerization : No data available
Stability : Stable for 3 years after manufacturing under recommended storage and handling conditions as indicated in Section 8

SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicological evaluation is under testing now for this formulation. The following data are for the similar product of pyriproxyfen 10EC (Product Code: SF05), and for pyriproxyfen TG.

Pyriproxyfen 10EC (Product Code: SF05)

Toxicity Data :

Acute Oral LD ₅₀	: (Rat) male	4733 mg/kg
	female	3773 mg/kg
Acute Dermal LD ₅₀	: (Rabbit)	> 2000 mg/kg
Acute Inhalation LC ₅₀	: (Rat)	> 3100 mg/M3 (4 hr exposure)
Skin Irritation	: Irritant	
Eye Irritation	: Irritant	
Skin Sensitization	: No data available	

Pyriproxyfen TG

Toxicity Data :

Acute Oral LD ₅₀	: (Rat)	> 5000 mg/kg
Acute Dermal LD ₅₀	: (Rat)	> 2000 mg/kg
Acute Inhalation LC ₅₀	: (Rat)	> 1.3 mg/L (4 hr) (max. attainable concentration using an artificially produced mist)
Skin Irritation	: Non-irritating	
Eye Irritation	: Irritating	
Skin Sensitization	: Not sensitizing (Maximisation test)	

MATERIAL SAFETY DATA SHEET

Introductory Details

Page 5 of total 6

Date of preparation : 28 December 2007

Carcinogenicity : No data available
Reproductive Effect : No data available
Effects of overexposure : No data available
Chronic effects : No data available
Target organs : No data available

Medical Conditions Generally Aggravated by exposure: No data available

SECTION 12 : ECOLOGICAL INFORMATION

No experimental toxicological data are available for the formulation. The following data are for the active ingredient; Pyriproxyfen TG

Mobility & Bioaccumulation : No data available
Biodegradability : No data available
Aquatic Toxicity : Very toxic to aquatic organism
Acute toxicity, 96h-LC₅₀ (*Oncorhynchus mykiss*) : 0.325 mg/L
Acute toxicity, 48h-EC₅₀ (*Daphnia magna*) : 0.40 mg/L
Acute toxicity, 72h-EC₅₀ (*Selenastrum capricornutum*) : 0.064 mg/L

SECTION 13 : DISPOSAL INFORMATION

Dispose of according to local regulation.

SECTION 14 : TRANSPORT INFORMATION

Follow all regulations in your country.

SECTION 15 : REGULATORY INFORMATION

Pesticides Act - Class IV

CPL Regulations : Class – Harmful, Irritant

Risk Phrases : R20 Harmful by inhalation
R38 Irritating to skin

Safety Phrases : S2 Keep out of reach of children
S13 Keep away from food, drink and animal feeding stuff
S36/37/39 Wear suitable protective clothing, gloves and eyes/face protection

MATERIAL SAFETY DATA SHEET

Introductory Details

Page 6 of total 6

Date of preparation : 28 December 2007

SECTION 16 : OTHER INFORMATION

Reference : (a)Material Safety Data Sheet / S-71639 10EC (E06-1)
First issue : May 24, 2006
MSDS No. LATJ72070Z00

(b)Guidelines for The Classification of Hazardous Chemicals, DOSH 1997

(c)Guidelines for The Formulation of A Chemical Safety Data Sheet, DOSH
1997

(d)Guidelines for Labelling of Hazardous Chemicals, DOSH 1997

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.