

# MATERIAL SAFETY DATA SHEET

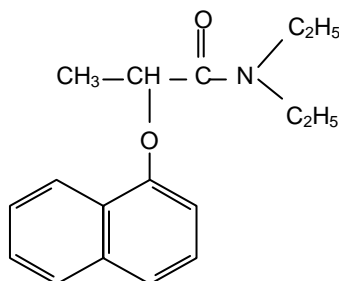
## Introductory Details

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Date of preparation : 9 April 2004  
Date revised : 2 January 2008

## SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product Details

Product Name : Napropamide 21.8% EC  
Trade Name : DEVRINOL 2-E  
Chemical Name : N,N-diethyl-2-(1-naphthalenyloxy)-propionamide  
Chemical Formula :  $C_{15}H_{21}NO_2$   
Molar Mass : 247  
Chemical Family : Propionamide compound  
Manufacturer's Code : -  
Use : Herbicide  
Structural Formula :



*Napropamide*

### 1.2 Company Identification

#### **Manufacturer**

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. Ahmad Labib bin Yusof, Administrative Assistant  
Tel. No. : 604-390 7988

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## SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENT

| Chemical Name                                  | CAS No.    | Proportion | Exposure Limit     | Toxicity Data       |
|--|------------|------------|--------------------|---------------------|
| N,N-diethyl-2-(1-naphthalenyloxy)-propionamide | 15299-99-7 | 21.8 %     | Refer to Section 9 | Refer to Section 11 |
| Surfactant                                     | -          | < 10%      |                    |                     |
| Solvent  | -          | Balance    |                    |                     |

## SECTION 3 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Yellowish liquid  
Odour : Characteristic odour  
Solubility : Miscible with water  
Boiling Point : No data available  
Melting Point (Technical) : 68 - 70°C  
Vapour Pressure (Technical) :  $5.3 \times 10^{-4}$  Pascal at 25°C  
Percentage Volatiles : No data available  
Evaporation Rate : No data available  
Vapour Density : No data available  
Specific Gravity : 1.11 at 20°C/20°C  
Flash Point : 30°C  
Autoignition temperature : No data available  
Flammable Limit : No data available

## SECTION 4 : HAZARD IDENTIFICATION

Flammable  
Harmful by inhalation and in contact with skin  
Irritating to eyes and skin

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## **SECTION 5 : FIRST AID MEASURES**

- Ingestion : Do not induce vomiting, immediately give plenty of water or milk to drink. Never give anything by mouth to an unconscious patient. If vomiting, continue giving diluted drinks. Get medical attention immediately.
- Eye contact : Immediately flush with plenty of water. Obtain medical advice.
- Skin contact : Remove contaminated clothing and wash skin thoroughly with soap and water. If redness, itching or burning sensation occurs, get medical attention.
- Inhalation : Remove patient from exposure, keep warm and at rest. Get medical attention.
- Notes to physician :
- Poisoning symptoms : Moody, salivation, stomachache.
- Medical treatment : Mucosal injury following ingestion of this potentially corrosive material may contraindicate the induction of vomiting in the treatment of possible intoxication. Similarly, if gastric lavage is performed, intubation should be done with great care.  
Treatment is symptomatic.

## **SECTION 6 : FIRE FIGHTING MEASURES**

- Extinguishing Media : CO<sub>2</sub>, foam, dry chemical or halogenated extinguishing agents.
- Fire fighting instruction : Prevent human exposure to fire, smoke, fumes or product of combustion. Maintain a safe distance from the fire and drum storage areas because excessive heat may cause drums to rupture violently. Fire fighters should wear full-faced self-contained breathing apparatus and protective clothing.
- Special hazards : May decompose under fire conditions to give off toxic materials.

## **SECTION 7 : ACCIDENTAL RELEASE MEASURE**

Leak and/or Spill :

Wear protective clothing. 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 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.

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## SECTION 8 : HANDLING AND STORAGE

Handling : Read the label before use. Wear pesticide respiratory masks, protective gloves and clothing while handling.  
Storage : Keep in original container, tightly closed, in a cool dry and well-ventilated place, out of reach of children. Keep away from foodstuffs and animal feeds.

## SECTION 9 : EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure Limit : No ACGIH TLV or OSHA PEL is assigned.  
Engineering measures : Local exhaust ventilation  
Personal protection : Wear pesticide respiratory masks, protective gloves and clothing.

## SECTION 10 : STABILITY AND REACTIVITY

Conditions to avoid : Direct sunlight, heat and extreme temperature  
Incompatible : Relatively non-reactive. Will not react with water. Not corrosive to normal materials of construction.  
Decomposition Products : Decompose on heat may give off toxic material.  
Hazardous polymerization : Will not occur.  
Stability : Stable under normal conditions. Crystallization will occur at low temperature.

## SECTION 11 : TOXICOLOGICAL INFORMATION (TECHNICAL)

### Toxicity Data :

Acute Oral LD<sub>50</sub> : (Rat) > 5000 mg/kg  
Acute Dermal LD<sub>50</sub> : (Rat) > 2000 mg/kg  
Acute Inhalation LC<sub>50</sub> : (Rat, 4h) > 5 mg/l  
Skin Irritation : Non-irritant following a single application to rabbit skin. It is not a skin sensitiser in animal tests.  
Eye Irritation : Moderate irritant to rabbit eyes.

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Carcinogenicity : No data available  
Reproductive Effect : Studies in animals have shown that repeated doses produce no teratogenic effects.  
Effects of overexposure : No data available  
Chronic effects : Chronic studies in animals have shown that repeated doses produce no significant effects. There is no evidence of mutagenic or clastogenic potential.  
Target organs : No data available  
Medical Conditions Generally Aggravated by Exposure : No data available

## **SECTION 12 : ECOLOGICAL INFORMATION (TECHNICAL)**

Mobility & Bioaccumulation : The product has potential for bioaccumulation.  
Biodegradability : There is evidence of degradation in soil.  
There is evidence of photodegradation in water.  
The substance shows no evidence for biodegradability in water.  
Aquatic toxicity :  
LC<sub>50</sub> (96 hr; flow through) : (Rainbow trout) > 9.9 mg/l  
EC<sub>50</sub> (48 hr) : (Daphnia magna) 24 mg/l

## **SECTION 13 : DISPOSAL INFORMATION**

Dispose of according to local regulation.

## **SECTION 14 : TRANSPORT INFORMATION**

Follow the precaution indicated in the storage and handling section. Follow all regulations in your country.

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## SECTION 15 : REGULATORY INFORMATION

Pesticides Act : Class IV

CPL Regulation : Class - Harmful, Flammable

Risk Phrases : R10 Flammable  
R20/21 Harmful by inhalation and in contact with skin  
R36/38 Irritating to eyes and skin

Safety Phrases : S2 Keep out of reach of children  
S13 Keep away from food, drink and animal feeding stuff  
S37/39 Wear suitable gloves and eyes/face protection  
S51 Use only in well ventilated areas

## SECTION 16 : OTHER INFORMATION

- Reference : (a) Material Safety Data Sheet - Devrinol 2-E  
Date : 13-8-1998
- (b) Material Safety Data Sheet - Devrinol Technical  
Date : 5<sup>th</sup> March 2002
- (c) Guidelines for The Classification of Hazardous Chemicals, DOSH 1997
- (d) Guidelines for The Formulation of A Chemical Safety Data Sheet, DOSH 1997
- (e) 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.