



Safety Data Sheet

SDS No.:
SDS-P/EC-D/01

Devrinol 2-E

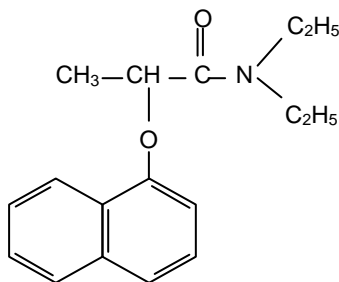
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Section 1: Identification of the Hazardous Chemical and of the Supplier

1.1 Product Identifier

Product Name: Napropamide 21.8% EC
Trade Name: Devrinol 2-E
Active Ingredient: Napropamide
CAS No.(AI): 15299-99-7
Structural Formula:



Recommended Usage: Herbicide

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 Liquid, Category 3
Acute Toxicity, Dermal Category 4
Acute Toxicity, Inhalation Category 4
Skin Irritation, Category 2
Eye Irritation, Category 2
Carcinogenicity, Category 2
Specific Target Organ Toxicity (Single Exposure) – Category 3
Aspiration Hazard – Category 1

Pictogram:





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Signal Word: Danger

Hazard Statement:

H226: Flammable liquid and vapour
H312: Harmful if in contact with skin
H332: Harmful if inhaled
H315: Causes skin irritation
H319: Causes serious eye irritation
H335: May cause respiratory irritation
H351: Suspected of causing cancer
H304: May be fatal if swallowed and enters airways

Precautionary Statement:

P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P243: Take precautionary measures against static discharge
P264: Wash exposed body part thoroughly after handling
P261: Avoid breathing vapours
P280: Wear rubber gloves, protective clothing, safety goggles and face protection
P271: Use only outdoors or in a well-ventilated area

Section 3: Composition and Information of the Ingredients of the Hazardous Chemical

| Component | CAS No. | Weight, % | Hazard Code |
|--------------|------------|-------------|--|
| Napropamide | 15299-99-7 | 21.8% | - |
| Surfactant 1 | - | 5% to < 10% | H319, H351, H335 |
| Surfactant 2 | - | < 1% | H315, H318, H319 |
| Solvent | - | > 60% | H226, H312, H332, H315, H319, H335, H304 |

Section 4: First-aid Measures

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

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin Contact: Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse

Eye Contact: 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.



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Ingestion: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.

Symptoms: Moody, salivation, stomachache

Notes to Physician: 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 5: Fire-fighting Measures

Suitable Extinguishing Media: Carbon dioxide (CO₂), chemical foam, dry chemical, aqueous film forming foam

Specific Hazard During Fire: May decompose under fire conditions to give off toxic materials

Special Protective Equipment: Fire fighters should wear full-faced self-contained breathing apparatus and protective clothing

Section 6: Accidental Release Measures

Personal Precautions: Do not handle until all safety precautions have been read and understood. Wear appropriate protective equipment as required

Environmental Precautions: Avoid release to the environment

Method for Cleaning Up: Wear protective clothing as indicated in Section 8. Evacuate non essential personnel. 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.

Section 7: Handling and Storage

Precautions for Safe Handling: Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.

Conditions for Safe Storage: Keep in original container, tightly closed, out of reach of children. Keep away from food, drinks and animal feeding stuffs. Read the label before use. Do not contaminate water. Open dumping is prohibited.

Incompatibles: Relatively non-reactive. Will not react with water. Not corrosive to normal materials of construction.



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Section 8: Exposure Control and Personal Protection

Exposure Limit:

| Source | Component | CAS No. | Limit | |
|-------------------------|------------|-------------------------------|---------------------------------|-------------------------------|
| JSOH(2013) | Surfactant | - | OEL (as 1,2,4-Trimethylbenzene) | 25ppm, 120mg/m ³ |
| ACGIH (2005) TLV-TWA | | | TWA (as Trimethylbenzene) | 25ppm |
| ACGIH | Solvent | - | STEL | 150ppm |
| SG OEL | | | TWA | 100ppm |
| | | | TWA | 434mg/m ³ , 100ppm |
| | STEL | 651mg/m ³ , 150ppm | | |

Engineering Control: Local exhaust or general dilution ventilation
Individual Protection Measure: Avoid inhalation. Wash thoroughly after handling and before eating or drinking. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin and eyes.
Personal Protective Equipment:
Eye Protection: Protective goggles
Skin Protection: PVC gloves and clothing
Respiratory Protection: Pesticide respiratory masks

Section 9: Physical and Chemical Properties

Appearance: Yellowish liquid
Odour: Characteristic odour
Odour Threshold: No data available
pH: No data available
Melting/Freezing Point: 68°C - 70°C (Napropamide)
Initial Boiling Point: No data available
Boiling Range: No data available
Flash Point: 32°C
Evaporation Rate: No data available
Flammability: No data available
Upper Flammability Limit: No data available
Lower Flammability Limit: No data available
Vapour Pressure: 5.3×10^{-4} Pascal at 25°C (Napropamide)
Vapour Density: No data available
Relative Density: No data available
Solubility in Water: Miscible with water
Partition Coefficient P_{o/w}: No data available
Auto-ignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available



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Section 10: Stability and Reactivity

Reactivity: No data available

Chemical Stability: Stable under normal conditions. Crystallization will occur at low temperature

Hazardous Reaction: None

Condition to Avoid: Direct sunlight, heat and extreme temperature

Incompatible Material: Relatively non-reactive. Will not react with water. Not corrosive to normal materials of construction

Hazardous Decomposition Product: Decompose on heat may give off toxic material

Section 11: Toxicological Information

11.1 Acute Toxicity

| Component: Napropamide | | | |
|------------------------|---|----------------------|--|
| | Ingestion, Oral LD ₅₀ : | | |
| | Rat | 5000mg/kg | |
| | Skin Contact, Dermal LD ₅₀ : | | |
| | Rabbit | 4640mg/kg | |
| Component: Solvent | | | |
| | Ingestion, Oral LD ₅₀ : | >2000 to ≤ 5000mg/kg | |
| | Skin Contact, Dermal LD ₅₀ : | >1000 to ≤ 2000mg/kg | |
| | Inhalation, LC ₅₀ : | >10 to ≤ 20mg/L | |

11.2 Chronic Effect from Short and Long Term Exposure

Skin Contact: Harmful if in contact with skin

Eye Contact: Causes serious eye irritation

Inhalation: May cause respiratory irritation

Ingestion: No data available

Carcinogenicity: Suspected of causing cancer

Mutagenicity: No data available

Teratogenicity: No data available

11.3 Symptoms: Moody, salivation, stomachache

Section 12: Ecological Information

Ecotoxicity:

| Component: Napropamide | | | |
|------------------------|--------------------------------------|---------|--|
| | Acute Aquatic Toxicity | | |
| | Oncorhynchus mykiss (rainbow trout), | 9.4mg/L | |



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| | | | |
|--|--|----------------|--|
| | LC ₅₀ , 96 hr | | |
| | Daphnia magna (water flea), LC ₅₀ , 48 hr | 14.3mg/L | |
| Component: Solvent | | | |
| Acute Aquatic Toxicity LL/EL/ IL ₅₀ : | | | |
| | Fish | > 1 to ≤10mg/L | |
| | Aquatic crustacea | > 1 to ≤10mg/L | |
| | Algae/aquatic plants | > 1 to ≤10mg/L | |
| | Microorganisms | > 100mg/L | |
| Chronic Toxicity, NOEC/NOEL | | | |
| | Fish, 56 days | > 1mg/L | |
| | Aquatic crustacea, 21 days | > 1mg/L | |

Persistence and Degradability: There is evidence of degradation in soil.
There is evidence of photo degradation in water.
The substance shows no evidence for biodegradability.

Bioaccumulative Potential: The product has potential for bioaccumulation

Mobility in Soil: No data available

Other Adverse Effect: No data available

Section 13: Disposal Information

Dispose of contents/container to Kualiti Alam / authorized body by DOE (pesticides)

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 | - |



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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 Liquid, Category 3
Acute Toxicity, Dermal Category 4
Acute Toxicity, Inhalation Category 4
Skin Irritation, Category 2
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Carcinogenicity, Category 2
Specific Target Organ Toxicity (Single Exposure) – Category 3
Aspiration Hazard – Category 1

Signal Word: Danger

Pictogram:



Pesticides Act: Class IV

Classification: -

Section 16: Other Information

Date of Preparation: 21 December 2015

Date of Revision: -

Reference Document: ICOP on Chemicals Classification and Hazard Communication 2014
GHS Purple Book
MSDS

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.