

## Section 1 - Identification Of The Material And Supplier

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**Chemical nature:** Napropamide is an alkanamide derivative.  
**Trade Name:** **United Phosphorus Devrinol WG Herbicide**  
**APVMA Code:** 51479  
**Product Use:** Agricultural herbicide for use as described on the product label.  
**Creation Date:** **June, 2005**  
**This version issued:** **January, 2015** and is valid for 5 years from this date.

## Section 2 - Hazards Identification

### Statement of Hazardous Nature

This product is classified as: Not classified as hazardous according to the criteria of SWA Australia.

Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

**Risk Phrases:** Not Hazardous - No criteria found.

**Safety Phrases:** S24/25. Avoid contact with skin and eyes.

**SUSMP Classification:** None allocated.

**ADG Classification:** None allocated. Not a Dangerous Good under the ADG Code.

**UN Number:** None allocated

**GHS Signal word: NONE. Not hazardous.**

### PREVENTION

P102: Keep out of reach of children.

P262: Do not get in eyes, on skin, or on clothing.

P281: Use personal protective equipment as required.

### RESPONSE

P337: If eye irritation persists: seek medical attention.

P352: Wash with plenty of soap and water.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P370+P378: Not combustible. Use extinguishing media suited to burning materials.

### STORAGE

P410: Protect from sunlight.

P402+P404: Store in a dry place. Store in a closed container.

P403+P235: Store in a well-ventilated place. Keep cool.

### DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

## Emergency Overview

**Physical Description & colour:** Off-white granulated solid.

**Odour:** Mild odour.

**Major Health Hazards:** Napropamide is not harmful by oral, dermal or inhalation exposures. No significant risk factors have been found for this product.

## Potential Health Effects

See section 11 for Chronic exposure studies.

### Inhalation

**Short term exposure:** Significant inhalation exposure is considered to be unlikely. Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

### Skin Contact:

**Short term exposure:** Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.

## SAFETY DATA SHEET

**Eye Contact:**

**Short term exposure:** Exposure via eyes is considered to be unlikely. This product is believed to be mildly irritating, to eyes, but is unlikely to cause anything more than mild transient discomfort.

**Ingestion:**

**Short term exposure:** Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

**Carcinogen Status:**

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

**Section 3 - Composition/Information on Ingredients**

Ingredients	CAS No	Conc, %	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Napropamide	15299-99-7	50	not set	not set
Other non hazardous ingredients	secret	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

**Section 4 - First Aid Measures****General Information:**

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**Skin Contact:** Gently brush away excess solids. Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

**Eye Contact:** Quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed, while holding the eyelid(s) open. Obtain medical advice immediately if irritation occurs.

**Ingestion:** If product is swallowed or gets in mouth, wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

**Section 5 - Fire Fighting Measures**

**Fire and Explosion Hazards:** There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog.

**Fire Fighting:** When fighting fires involving significant quantities of this product, wear a splash suit complete with self contained breathing apparatus.

**Flash point:** Not flammable.

**Upper Flammability Limit:** No data.

**Lower Flammability Limit:** No data.

**Autoignition temperature:** No data.

**Flammability Class:** No data.

**Section 6 - Accidental Release Measures**

**Accidental release:** Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that dusts are likely to build up in cleanup

**SAFETY DATA SHEET**

area, we recommend that you use a suitable Dust Mask. Use a P1 mask, designed for use against mechanically generated particles eg silica & asbestos.

Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## Section 7 - Handling and Storage

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Make sure that containers of this product are kept tightly closed. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

## Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

<b>SWA Exposure Limits</b>	<b>TWA (mg/m<sup>3</sup>)</b>	<b>STEL (mg/m<sup>3</sup>)</b>
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Exposure limits have not been established by SWA for any of the significant ingredients in this product.

The ADI for Napropamide is set at 0.1mg/kg/day. The corresponding NOEL is set at 11mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, June 2013.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimised.

**Eye Protection:** Eye protection such as protective glasses or goggles is recommended when this product is being used.

**Skin Protection:** The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, PVC.

**Respirator:** If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask.

## Section 9 - Physical and Chemical Properties:

<b>Physical Description &amp; colour:</b>	Off-white granulated solid.
<b>Odour:</b>	Mild odour.
<b>Boiling Point:</b>	Not available.
<b>Freezing/Melting Point:</b>	No specific data. Napropamide melts about 75°C
<b>Volatiles:</b>	No specific data. Expected to be low at 100°C.
<b>Vapour Pressure:</b>	Napropamide 0.53 mPa at 25°C
<b>Vapour Density:</b>	No data.
<b>Specific Gravity:</b>	No data.
<b>Water Solubility:</b>	Wettable - Napropamide is practically insoluble.
<b>pH:</b>	No data.
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	No data.

### SAFETY DATA SHEET

**Coeff Oil/water distribution:** 3.3 at 25°C (log P octanol/water)

**Autoignition temp:** No data.

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## Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** Keep containers tightly closed. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

**Incompatibilities:** strong acids, strong bases, strong oxidising agents.

**Fire Decomposition:** Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death. Hydrogen cyanide poisoning signs and symptoms are weakness, dizziness, headache, nausea, vomiting, coma, convulsions, and death. Death results from respiratory arrest. Hydrogen cyanide gas acts very rapidly; symptoms and death can both occur quickly.

**Polymerisation:** This product will not undergo polymerisation reactions.

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## Section 11 - Toxicological Information

**Toxicity:** An information profile for Napropamide is available at <http://extoxnet.orst.edu/pips/ghindex.html>

**Acute toxicity:** Napropamide is practically nontoxic by ingestion, with reported oral LD<sub>50</sub> values for the technical product of over 5000 mg/kg in male rats and 4680 mg/kg in female rats. It is slightly to practically nontoxic by skin exposure, with reported dermal LD<sub>50</sub> values of greater than 4640 mg/kg in rabbits, and greater than 2000 mg/kg in guinea pigs.

**Chronic toxicity:** Rats fed Napropamide at doses of up to 30 mg/kg/day for 13 weeks showed no significant effects. At doses of 40 mg/kg/day over the same length of time, female rats experienced a reduction in uterine weight. In a feeding study in dogs over 13 weeks, males experienced decreased liver weight and body weight, and some changes in blood chemistry at the highest dose tested, 100 mg/kg/day. There were no tissue changes in either the rats or dogs at doses of up to 100 mg/kg/day.

**Reproductive effects:** There is not enough evidence to assess the potential of Napropamide to cause reproductive effects.

**Teratogenic effects:** Three separate tests with rats produced conflicting results, thus making any conclusion difficult to draw. One study indicated that the compound had no effects at doses over 400 mg/kg/day in pregnant rats or in their offspring. However, two other studies showed incomplete formation of bone in the rats at doses as low as 25 mg/kg/day administered at critical times of pregnancy (organogenesis).

**Mutagenic effects:** Three tests of the mutagenicity of Napropamide all produced negative (nonmutagenic) results. This evidence suggests that Napropamide is not mutagenic.

**Carcinogenic effects:** Two tests, each conducted over two years, revealed no cancer related changes in either rats or mice. These data suggest that Napropamide is not likely to be carcinogenic.

**Organ toxicity:** Though numerous organ-related adverse effects have been noted after acute exposure to Napropamide, few have been found after chronic exposure. Only decreases in uterine and liver weights have been observed in test animals.

**Fate in humans and animals:** Elimination is very rapid following oral exposure to Napropamide. Generally, most (99%) of a single dose is excreted within 4 days.

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## Section 12 - Ecological Information

**Effects on birds:** Napropamide is practically nontoxic to game birds. The compound has 5-day dietary LC<sub>50</sub> values ranging from nearly 7200 ppm in the mallard duck to 5600 ppm in the bobwhite quail.

**Effects on aquatic organisms:** The compound is slightly to moderately toxic to freshwater fish species. Napropamide appears to be slightly toxic to aquatic invertebrates; the reported 48-hour LC<sub>50</sub> for the compound in *Daphnia magna* is 14.3 mg/L. The compound is not likely to accumulate appreciably in the tissue of fish.

**Effects on other organisms:** The reported oral LD<sub>50</sub> for Napropamide in bees is 121 g/bee, indicating it is not toxic to this species.

### Environmental Fate:

**Breakdown in soil and groundwater:** Napropamide is moderately persistent in the soil environment, with reported field half-lives of 56 to 84 days. A typical value for most situations is estimated to be 70 days.

**Breakdown in water:** In water, the compound is broken down very quickly. The half-life for Napropamide may be as rapid as 7 minutes. The breakdown in water is predominantly mediated by the action of sunlight (photolysis).

**Breakdown in vegetation:** Napropamide is typically absorbed through the roots and translocated throughout the plant in some species (e.g., tomato) but not others (e.g., corn). It effectively shuts down growth by inhibiting cell division (mitosis) in the shoot regions (meristems).

## SAFETY DATA SHEET

## Section 13 - Disposal Considerations

**Disposal:** Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 <http://www.chemclear.com.au/> and for help with the disposal of empty drums, contact DrumMuster <http://www.drummuster.com.au/> where you will find contact details for your area.

## Section 14 - Transport Information

**UN Number:** This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

## Section 15 - Regulatory Information

**AICS:** All of the significant ingredients in this product are compliant with NICNAS regulations.

## Section 16 - Other Information

**This SDS contains only safety-related information. For other data see product literature.**

### Acronyms:

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>R-Phrase</b>	Risk Phrase
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document **Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice** (December 2011)  
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## SAFETY DATA SHEET