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# MATERIAL SAFETY DATA SHEET

Date of Issue: 01/06/06

## SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** DuPont™ Lexone® Xtruded™ herbicide

**Product Code**

**Product Use** For selective weed control in asparagus barley, chickpeas, faba beans, lentils, lupins, oats, potatoes, peas, soybeans, tomatoes, vetch, wheat, white lupins as indicated in attached Directions for Use table.

**Company Name** DuPont Australia Limited

**Address** 168 Walker Street, North Sydney NSW 2060

**Emergency Telephone Number** Transport Emergency 1800 033 111  
Medical Emergency 1800 674 415c

**Telephone Number** 02 9923 6111

**Product Type** Herbicide

## SECTION 2 HAZARDS IDENTIFICATION

**Hazard classification:** Hazardous according to the criteria of National Occupational Health & Safety Commission (NOHSC).  
Xn Harmful

**Risk phrases:** R22 Harmful if swallowed.  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:** S2 Keep out of reach of children.  
S60 This material and its container must be disposed of as hazardous waste.  
S61 Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets.

**ADG classification:** None

**SUSDP classification:** 5

## SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration
Metribuzin	21087-64-9	75%
Other non hazardous ingredients	-	25%

## SECTION 4 FIRST AID MEASURES

**Inhalation** Avoid breathing dust. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek Medical attention.

**Skin contact** In case of contact, immediately wash skin with soap and plenty of water. Wash contaminated clothing before reuse.

**Eye contact** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek Medical attention.

**Ingestion** If swallowed, seek medical attention. Never give anything by mouth to an unconscious person.

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**Advise to Doctor** No specific requirements. Treat symptomatically.

## SECTION 5 FIRE FIGHTING MEASURES

**Extinguishing media** Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

**Hazards from combustion products** Specific Hazard(s): Emits toxic fumes under fire conditions.

**Precautions and equipment for fire fighters** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Hazchem Code** 2X

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Wear personal protective equipment  
**Environmental precautions:** Do not flush into surface water or sanitary sewer system.  
**Methods for cleaning up:** Do not flush with water. Clean up promptly by sweeping or vacuum. Shovel into suitable container for disposal.

## SECTION 7 HANDLING AND STORAGE

**Handling** Directions for Safe Handling: Avoid breathing vapours or mists. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Do not consume food, drink, or tobacco in areas where there may become contaminated with these materials.

**Storage** Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight.

**Flammability** Non flammable

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**National exposure standards** None established for formulated product.  
Metribuzin: TWA: 5 mg/m<sup>3</sup> (8 hr TWA)

**Engineering controls** Use only with adequate ventilation.

**Personal protective equipment** PESTICIDE APPLICATORS & WORKERS  
These workers must refer to the Product Label and Directions For Use attached to the product

### MANUFACTURING, COMMERCIAL BLENDING, & PACKAGING WORKERS

**Ventilation:** Control enclosed spaces with adequate ventilation to prevent exceedance of ACGIH TLV or OSHA PEL.

**Respiratory Protection:** In enclosed spaces where the TLV or PEL may be exceeded, wear NIOSH/MSHA approved dust or mist respirators.

**Eye Protection:** Wear protective eyewear to prevent contact with this substance.

**Protective Clothing:** Applicators and other handlers must wear coveralls over short-sleeved shirt and short pants, waterproof gloves, shoes plus socks, and chemical-resistant headgear for overhead exposure.

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## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance (colour, physical form, shape)</b>	Off-white granule
<b>Odour</b>	Sulphurous
<b>Solubility (specify solvent, e.g. water)</b>	Dispersible
<b>Specific gravity or density</b>	0.50 – 0.63 g/mL
<b>Melting point:</b>	125.3 – 126.5 °C (Metribuzin)

## SECTION 10 STABILITY AND REACTIVITY

<b>Chemical stability</b>	This material is stable under normal conditions.
<b>Conditions to avoid</b>	Avoid dust formation in confined areas.
<b>Incompatible materials</b>	Non known
<b>Hazardous decomposition products</b>	Thermal decomposition may release toxic and/or hazardous gases: carbon oxides, sulphur dioxide, nitrogen oxides.
<b>Hazardous reactions</b>	Stable under normal conditions of use.

## SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral LD <sub>50</sub> (rat - male):	1400 mg/kg
Acute Oral LD <sub>50</sub> (rat - female):	1200 mg/kg
Acute Dermal LD <sub>50</sub> (rat - male):	7500 mg/kg
Acute Dermal LD <sub>50</sub> (rabbit):	> 20000 mg/kg
1 hr inhalation LC <sub>50</sub> (rat):	> 160 mg/L (70 % dry flowable granules)
<b>Eye:</b>	May irritate the eyes. Causes irritation in rabbits. Not hazardous to eyes according to criteria of NOHSC.
<b>Skin:</b>	Very low toxicity by contact, may irritate the skin. Tests on humans showed no irritation or dermal sensitisation. Not hazardous by skin contact according to criteria of NOHSC.
<b>Inhaled:</b>	Slightly toxic by inhalation.
<b>Swallowed:</b>	Harmful if swallowed. Ingestion may initially include non-specific discomfort such as nausea, headache or weakness.

### Chronic Effects:

None established for formulated product.  
 Metribuzin: Two-year feeding studies with rats (25, 35, 100, and 300 ppm) and dogs (25, 100, 1500 ppm) resulted in a no effect level of 100 ppm. There were no indications of carcinogenic effects in the rat or dog study, or in mice fed at 20, 800 and 3200 ppm for 2 years. A three – generation study in rats (35, 100, and 300 ppm) showed no influence on reproduction. In tests on rabbits at 15, 45 and 135 mg/kg/day and rats at 15, 50, and 100 mg/kg/day, metribuzin had no embryotoxic or teratogenic effects. Tests *in vitro* (Ames, *E. Coli*), *in vivo* (Chinese hamsters, spermatogonia test), and in mice (dominant lethal test) showed no mutagenic activity.

### Over Exposure

Significant skin permeation, and systemic toxicity, after contact appears unlikely. There are no reports of human sensitisation. Based on animal data, long-term exposure by ingestion may cause abnormal liver function with altered results on blood tests. No adequate epidemiological studies are available for this compound. Increased susceptibility to the effects of this material may be observed in persons with pre-existing disease of the liver.

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## SECTION 12 ECOLOGICAL INFORMATION

**Ecotoxicity** 96 hr LC<sub>50</sub> (rainbow trout): > 14.3 mg/L  
 96 hr LC<sub>50</sub> (bluegill sunfish): 80 mg/L  
 48 hr LC<sub>50</sub> (daphnia): 98.5 mg/L  
 Oral LC<sub>50</sub> (bobwhite quail): > 715 mg/kg (dry flowable granules)  
 Oral LD<sub>50</sub> (mallard duck): > 4000 mg/kg (metribuzin)  
 Bioaccumulation: log POW 1.60 (metribuzin)

**Persistence and degradability** According to the results of tests of biodegradability this product is not readily biodegradable. (metribuzin)

## SECTION 13 DISPOSAL CONSIDERATIONS

**Disposal methods and containers** *For metal drums and plastic containers*  
 Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

## SECTION 14 TRANSPORT INFORMATION

<b>Road and Rail Transport</b>	<b>Class and subsidiary risk:</b>	None allocated
	<b>Packing Group:</b>	None allocated
	<b>UN Number:</b>	None allocated
	<b>Proper Shipping Name:</b>	None allocated
	<b>EPG:</b>	None allocated
	<b>Hazchem code:</b>	None allocated
<b>IMDG</b>	<b>Class and subsidiary risk:</b>	9
	<b>Packing Group:</b>	III
	<b>UN Number:</b>	3077
	<b>Proper Shipping Name:</b>	Environmentally hazardous substance, solid, n.o.s. (metribuzin 75%)
<b>Marine pollutant</b>	Yes	

**Special precautions for user**

## SECTION 15 REGULATORY INFORMATION

**APVMA Approval Number** 60671

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Additional national and/or international regulatory information.

Registered according to Agricultural and Veterinary Chemicals Act 1988.

## SECTION 16 OTHER INFORMATION

### Preparation information:

### Key/legend to abbreviations and acronyms used in the MSDS:

ACGIH	American Conference of Governmental Industrial Hygienists.
DT <sub>50</sub>	Time(days) for 50%loss.
EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
ERMA	Environmental Risk Management Authority
HSNO	Hazardous Substances and New Organisms.
IARC	International Agency for Research on Cancer.
Koc	Organic carbon partition coefficient (ml soil water/g organic carbon)
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	Lethal dose to kill 50% of test animals/organisms.
NOEL	No observable effect level.
OSHA	American Occupational Safety and Health Administration.
Pow	The octanol-water partition coefficient is the ratio of the concentration of a chemical in octanol and in water at equilibrium at a specified temperature.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
WES	Workplace Exposure Limit

### Literature references

### Sources for data.

DuPont™ Lexone® DF® herbicide – 09/03/04  
LEXONE\* 75 DF - 000000587/N/NS – 23-01-2002

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