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## TROUNCE\* Brush-Pack\*\* Herbicide

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### IDENTIFICATION

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#### NOT CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA

MSDS No. 251                      Date: 22/04/1997                      Supersedes: 01/11/1994

Other Names:

Granular formulation containing	GLYPHOSATE	835 g/kg and
	METSULFURON METHYL	10 g/kg

Use:

Herbicide. NOT FOR REFORMULATION OR REPACKING.

Manufacturer's Name and Address  
Monsanto Australia Limited  
600 St. Kilda Road  
Melbourne 3004

U.N. Number:	N/A
Dangerous Goods:	N/A
Subsidiary Risk:	N/A
Packaging Group:	N/A
Hazchem Code:	N/A
Poisons Schedule:	S5
EPG/GTEPG:	N/A

### PHYSICAL DESCRIPTION/PROPERTIES

Appearance and Odour:

White granules, no odour.

Boiling Point (C):	-	Specific Gravity:	-
Vapour Pressure:	-	Melting Point (C):	-
Vapour Density:	-	Evaporation Rate:	-
Percent volatiles:	-	Bulk Density:	0.5 kg/L
pH (1% solution in water):	approx 4		
Solubility (Water):	soluble/dispersible mixture		
Solubility (Organic Solvents):	insoluble		

### FIRE/EXPLOSION HAZARD

Flash Point (C):	>93 (TCC)	Autoignition (C):	-
LEL:	-	UEL:	-

### INGREDIENTS

Ingredient	CAS No:	Proportion:
GLYPHOSATE MONO-AMMONIUM SALT	114370-14-8	97% approx
METSULFURON METHYL	74223-64-6	1%
MINOR CONSTITUENTS	mixture	<2%

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### HEALTH HAZARDS

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#### HEALTH EFFECTS

The following information summarises human experience and the results of scientific investigations reviewed by health professionals for hazard evaluation of the material and the development of precautionary and safe handling procedures recommended in this document.



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### Effects of Exposure:

Dermal contact and inhalation are expected to be the primary routes of occupational exposure to this material. Occupational exposure (limited experience) has not been reported to produce any significant adverse health effects. On the basis of available information, exposure to this material is not expected to produce significant adverse health effects when recommended safety precautions are followed.

### Toxicological Data:

Data from Monsanto acute studies of the major portion of this product (98% approx) [the mono-ammonium salt of glyphosate plus minor constituents] indicate the following:

Oral:	Slightly toxic	(Rat LD50 4,613 mg/kg)
Dermal:	Practically non-toxic	(Rabbit LD50 >5,000 mg/kg)
Eye Irritation:	Slightly irritating	(Rabbit 24-hr free of ocular irritation within 3 days)
Skin Irritation:	Non-irritating	(Rabbit 4-hr)
Inhalation:	Slightly toxic	(Rat 4-hr LC50 >1.9 mg/L the highest concentration achievable in study)

Patch testing of guinea pigs with the mono-ammonium salt of glyphosate produced no irritation following initial application or during subsequent repeated exposures in the induction phase. On challenge, animals did not exhibit a positive dermal response. The mono-ammonium salt of glyphosate is not considered a dermal sensitising agent in the guinea pig.

### COMPONENT: Glyphosate

Additional information is available from studies conducted by Monsanto on Glyphosate, the principal active constituent (83.5%) of TROUNCE BRUSH-PACK. Following repeated exposures (90 days) to glyphosate in their feed, decreased weight gains were noted at the highest test level in mice, while no treatment-related effects occurred in rats. Following repeated skin exposure (3 weeks) to glyphosate, slight skin irritation was the primary effect observed in rabbits. No skin allergy was seen in guinea pigs following repeated skin exposure. There was no evidence of effects on the nervous system, including delayed effects in chickens (repeat oral doses) or cholinesterase inhibition in rats (single oral doses).

Reduced body weight gain and effects on liver tissues were observed in long-term (2- year) feeding of glyphosate to mice at high dose levels. Reduced body weight gains and eye changes were observed at the high dose level in one long-term (2-year) feeding study with rats, while no treatment-related effects occurred in a second study. No adverse effects were observed in feeding studies with dogs. Glyphosate did not produce tumours in any of these studies. Based on the results from the chronic studies, the EPA (USA) has classified glyphosate in category E (evidence of non-carcinogenicity for humans).

No birth defects were noted in rats and rabbits given glyphosate orally during pregnancy, even at amounts which produced adverse effects on the mothers.

See Other Information for additional Toxicological Data on components.

### SWALLOWED

Harmful if swallowed.

### SKIN

Does not present a significant skin concern.

### EYE

Slightly irritating to eyes.

### INHALED

Prolonged exposure may cause slight upper respiratory tract irritation.



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### FIRST AID

#### SWALLOWED

If poisoning occurs, contact a doctor or Poisons Information Centre. If swallowed, and if more than 15 minutes from a hospital induce vomiting, preferably using Ipecac Syrup APF.

#### EYE

Hold eyes open, flood with water for at least 15 minutes and see a doctor.

#### SKIN

Remove contaminated clothing and wash skin thoroughly.

#### INHALED

Remove to fresh air.

#### ADVICE TO DOCTOR

If further treatment guidance is required, contact Emergency Number.

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## PRECAUTIONS FOR USE

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### EXPOSURE STANDARDS

Airborne Exposure Limits:

No exposure limits have been established for this material or its' components.

Although ACGIH has not established specific exposure limits for this material, it has established limits for nuisance dusts:

ACGIH TLV/8-hr TWA:                      Total 10 mg/cubic m.;                      Respirable 5 mg/cubic m.

These limits are stated only to indicate the least stringent airborne dust exposure levels applicable to nuisance dusts.

Use control measures as specified above to minimise exposure.

### ENGINEERING CONTROLS

Provide sufficient ventilation to minimise exposure. Use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

### PERSONAL PROTECTION

Precautionary Measures:

Avoid contact with eyes, skin and clothing.

Avoid breathing dust or spray mist.

Avoid contamination of fertilisers, spray materials, seed, feed, foodstuffs or water by storage or disposal.

Eye Protection:

Wear a face shield or chemical safety goggles to prevent eye contact where contact with undiluted material may occur.

Skin Protection:

Wear impervious gloves when handling undiluted material.

Where repeated or prolonged skin contact may occur, wear full body clothing and impervious gloves to prevent skin contact.

Wash hands and contaminated skin thoroughly after handling.

Launder contaminated clothing and clean protective equipment before re-use.



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### Respiratory Protection:

Avoid breathing dust or spray mist.

Use appropriate equipment when airborne exposure is excessive. Consult respirator manufacturer to determine appropriate type of equipment for given application. The respirator use limitations specified by the manufacturer must be observed. Respiratory protection programs must be in compliance with AS 1715 and AS 1716.

### **FLAMMABILITY**

Not flammable or combustible.

See Safe Handling Information - Fire/Explosion Hazard.

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## **SAFE HANDLING INFORMATION**

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### **STORAGE AND TRANSPORT**

Stable under normal conditions of warehouse storage.

Store in the closed, original container in a dry well ventilated area.

Avoid prolonged storage in direct sunlight.

Avoid contamination of fertilisers, spray materials, seed, feed, foodstuffs or water by storage or disposal.

Australian Transport Code:

Label: N/A

Packaging Group: N/A

EPG/GTEPG: N/A

### **SPILLS AND DISPOSAL**

Spill or Leakage Procedures:

Observe all PRECAUTIONS FOR USE when cleaning up spills.

Shovel or sweep up spilled or leaked material and any contaminated ground, place in a plastic-lined metal drum and dispose of as recommended under Waste Disposal.

Avoid contamination of fertilisers, spray materials, seed, feed, foodstuffs or water by storage or disposal.

Waste Disposal:

Wastes that cannot be used or chemically re-processed should be disposed of in a landfill approved for pesticide disposal.

Dispose of in accordance with all applicable local and state laws.

Containers:

Burn or bury in an approved landfill.

Dispose of in accordance with all applicable local and state laws.

### **FIRE/EXPLOSION HAZARD**

Extinguishing Media:

Water spray, foam, dry chemical, carbon dioxide or any Class B extinguishing agent.

Special Fire-fighting Procedures:

Fire fighters or others exposed to products of combustion should wear full protective clothing including self-contained breathing apparatus.

Thoroughly decontaminate equipment after use.

Unusual Fire and Explosion Hazards:

None.

However, like most organic particulate materials, under severe dusting conditions, this material may form explosive mixtures in air.



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### Reactivity Data:

Stability	-	stable
Materials to avoid	-	see below
Hazardous polymerisation	-	does not occur
Hazardous decomposition products	-	carbon monoxide, carbon dioxide, nitrogen oxides, oxides of phosphorous

Non-corrosive to stainless steel, polyethylene and plastics.

Corrosive to mild steel, galvanised steel and zinc.

Do not mix, store or apply this product or spray solutions of this product in galvanised steel or unlined steel containers, since a highly flammable gas mixture may be formed.

Use stainless steel, aluminium, brass, copper, fibreglass, plastic or plastic-lined steel containers or spray tanks.

### SPECIAL NOTES

Warning Statements:

WARNING.

KEEP OUT OF REACH OF CHILDREN.

READ SAFETY DIRECTIONS ON LABEL BEFORE OPENING.

### OTHER INFORMATION

Toxicological Data on components (continued):

Glyphosate was fed continuously to rats at very high doses for 2 successive generations. Toxicity was reported in offspring from the high dose, a level which also produced adverse effects on the mothers. In a 3 generation study conducted at lower dose levels, no effects were seen on the ability of male and female rats reproduce.

Glyphosate has produced no genetic changes in a variety of standard tests using animals and animal or bacterial cells.

COMPONENT: Metsulfuron methyl

Data are provided by the proprietors of metsulfuron methyl, a minor active constituent (1%) of TROUNCE BRUSH-PACK. Single oral dose studies indicate that metsulfuron methyl is of very low toxicity orally (rat) and slight to moderately toxic after skin application (rabbit). It is mild to moderately irritating to rabbit eyes and non-irritating to rabbit skin. No skin allergy was reported in guinea pigs after repeated skin exposure.

No oncogenic effects were observed in 18-month mouse and 2-year rat feeding studies. Slightly decreased parental body weights were seen at 5000 ppm, but no effect on rat reproduction or lactation were seen (highest dose tested 5000 ppm). Metsulfuron methyl was non-mutagenic in the Ames bacterial assay, Chinese hamster ovary (CHO) cell assay and DNA repair liver repair assay; it was positive in the invitro CHO cytogenetic assay but negative in the invitro rat bone marrow cytogenetic assay. It was not teratogenic or embryo-foetal toxic by gavage in rats (highest dose tested 1000 mg/kg) or by gavage in rabbits (highest dose tested 700 mg/kg)

### NOTES

Reason for update: Worksafe Australia hazardous substance classification added;

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**FOR ADDITIONAL NON-EMERGENCY INFORMATION, CALL CUSTOMER SERVICES  
FREE CALL 1 800 331 131**

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MATERIAL SAFETY DATA  
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Telephone: 03 9522 7122  
ACN 006 725 560

MONSANTO  
*Food • Health • Hope™*



EMERGENCY TELEPHONE  
(all hours) 1 800 033 111

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N/A = not applicable.