

MATERIAL SAFETY DATA SHEET

MACSPRED® HEXMAC™ 750 SG HERBICIDE

SECTION 1 – IDENTIFICATION

PRODUCT NAME: Macspred Hexmac 750 SG Herbicide
OTHER NAMES: None
RECOMMENDED USE: Agricultural herbicide for use as described on the product label.
COMPANY: Macspred Pty Ltd - ABN 85 011 029 495
ADDRESS: 13 Kennedys Drive, Delacombe VIC 3356
TELEPHONE NUMBER: (03) 5335 8522
EMERGENCY NUMBERS: First Aid: 13 11 26 (Poisons Information Centre)
Transport Emergency: 000 (Police or Fire)

SECTION 2 - HAZARDS IDENTIFICATION

HAZARDS CLASSIFICATION: Hazardous according to NOHSC List of Designated Hazardous Substances

RISK PHRASES: R22 Harmful if swallowed
R36 Irritating to eyes
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 container must be disposed of as hazardous waste.
S61 Avoid release to the environment. Refer to special instructions/MSDS.

ADG: This product is not classified a Dangerous Good under the Australian Code for Transport of Dangerous Goods by Road and Rail.

POISON SCHEDULE: Poison Schedule 6 (S6)
CLASSIFICATION: (Standard for Uniform Scheduling of Drugs and Poisons).

SECTION 3 - COMPOSITION

INGREDIENTS

CHEMICAL ENTITY	CAS NUMBER	PROPORTION
Hexazinone	51235-04-2	75%
Other non hazardous ingredients	Secret	25%

SECTION 4 – FIRST AID MEASURES

Swallowed:	Hazardous if swallowed, according to the criteria of NOHSC. If swallowed seek medical attention.
Skin:	In case of skin contact, immediately wash skin with soap and plenty of water. Wash contaminated clothing before reuse.
Eyes:	Hazardous by eye contact, according to the criteria of NOHSC. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention.
Inhaled:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

FIRST AID FACILITIES:

Provide eye wash and shower facilities.

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (Telephone: 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to a doctor.

ADVICE TO DOCTOR:

No specific requirements. Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Water spray, dry powder, foam, carbon dioxide (CO₂).

FIRE/EXPLOSION HAZARDS:

Not a fire or explosion hazard.

Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.

HAZARDS FROM COMBUSTION PRODUCTS:

Decomposition will not occur. Polymerisation will not occur. Incompatible or can react with strong bases.

SPECIAL PROTECTIVE PRECAUTIONS AND EQUIPMENT FOR FIRE FIGHTERS:

Evacuate personnel to a safe area. Wear self-contained breathing apparatus and full protective equipment.

On small fires, if area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the contamination hazard.

HAZCHEM CODE:

None allocated.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES:

NOTE: Review FIRE/EXPLOSION HAZARDS before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP PROCEDURES:

In the event of a major spill, prevent spillage from entering drains or water courses.

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. If spill area is on ground near valuable plants or trees, remove top 75mm of soil after initial cleanup. Remove non-usable solid material and/or contaminated soil, for disposal in an approved and permitted landfill. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions.

After spills, wash area preventing runoff from entering drains. **DO NOT** flush to surface water or sanitary sewer system. If a significant quantity of material enters drains, advise emergency services.

Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

DISPOSAL:

Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting applicable Federal, State, and Local regulations prior to disposal.

SECTION 7 – HANDLING AND STORAGE

HANDLING:

Keep exposure to this product to a minimum, and minimise the quantities kept in work areas.

This product is not a dangerous good.

STORAGE:

Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated locked area, as cool as possible out of direct sunlight and away from children, animals, food, feedstuffs, seed and fertilisers. Make sure that the product does not come into contact with substances listed “**Incompatible Materials**”- strong bases.

SECTION 8 – EXPOSURE CONTROLS

EXPOSURE STANDARDS:

Exposure Standards:

TLV (ACGIH): None established

AEL*: 10 mg/m³, 8 hr TWA

* AEL is an Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

ENGINEERING CONTROL:

Use only with adequate 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.

PERSONAL PROTECTIVE MEASURES:

Avoid contact with eyes and skin. DO NOT inhale dust or mist.

Eye Protection: Wear goggles when using this product.

Skin Protection: When using this product, wear cotton overalls buttoned to the neck and wrist, a washable hat and elbow length PVC gloves.

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

APPEARANCE:	Granulated solid
COLOUR:	Light tan
ODOUR:	Slight acrid smell
pH	No data available
MELTING POINT (°C):	No data available
BOILING POINT (°C):	Not applicable
BULK DENSITY:	No data available
VAPOUR PRESSURE:	No data available
FLASHPOINT:	Not Flammable
SOLUBILITY IN WATER (G/L):	Wettable: forms suspensions

OTHER PROPERTIES

CHEMICAL GROUP: Triazine

SECTION 10 – STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable at normal temperature storage conditions.

CONDITIONS TO AVOID: None known.

INCOMPATIBLE MATERIALS: Incompatible or can react with strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition will not occur.

HAZARDOUS REACTIONS: Polymerisation will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

HEALTH EFFECTS:

Acute:

- Swallowed:* Hazardous if swallowed, according to the criteria of NOHSC. Ingestion may include abnormal liver function, as detected by laboratory tests.
- Eye:* Hazardous by eye contact, according to the criteria of NOHSC. In tests with rabbits, product caused conjunctival chemosis, conjunctival redness and corneal opacity. Positive irritant effects were present in 1 rabbit 21 days after treatment. Overexposure to hexazinone by eye contact may initially include eye irritation with discomfort, tearing, or blurring of vision.
- Skin:* Not hazardous by skin contact, according to the criteria of NOHSC. Significant skin permeation and systemic toxicity after contact appears unlikely. Not a primary skin irritant; not a skin sensitiser.
- Inhaled:* Not hazardous by inhalation, according to the criteria of NOHSC.

Chronic:

Oral (rat): In a 2-year feeding study with the 90% powder, the no-observable effect level (NOEL) was 200 ppm; nutritional and body weight effects were seen in females at 1000 ppm and in both sexes at 2500 ppm. Biochemical effects were noted in both sexes at 2500 ppm.

Oral (mouse): In a 2-year feeding study, the NOEL was 200 ppm. Decreased body weight gain was in both sexes at 2500 ppm and 10000 ppm. This effect was severe at 10000 ppm, the highest dose tested. Non-neoplastic liver effects were noted in males at 2500 ppm and in both sexes at 10000 ppm. Based on recent pathology review, hyperplastic liver nodules diagnosed at 10000 ppm when this study was initially conducted have been reclassified as liver adenomas. This effect was only significant among female mice in this dose group. This change reflects the current scientific consensus regarding the classification of this benign lesion in the mouse liver.

Oral (dog): In a 1-year feeding study, the NOEL was 200 ppm. Reduced food consumption and body weight gains were significant at the high dose, 6000 ppm. These nutritional effects were associated with mild but reversible changes in haematological parameters at the high dose. Increased liver weights and other nonneoplastic liver effects as indicated by histopathology and changes in clinical chemical parameters were observed at 1500 and/or 6000 ppm.

Reproduction (rat): In a 3-generation, 3-litter study with 90 % powder, no adverse reproduction or lactation effects were seen at any level; slightly depressed average weanling weights were noted in the second and third litters at the high dose 2500 ppm. A second rat reproduction study (2-generation, 3 litter study) was conducted at dietary doses ranging from 200 to 5000 ppm. There were no adverse effects on fertility. The NOEL was 200 ppm. Decreased food consumption, parental body weight gain and decreased offspring weights were observed at higher doses.

Teratogenicity: Not teratogenic or embryo-foetal toxic to rats by dietary administration at levels as high as 5000 ppm, the highest dose tested. Administration to rats by oral intubation resulted in a NOEL for maternal and foetal effects of 100 mg/kg body wt/day. When hexazinone was administered to rabbits via oral intubation, there were no teratogenic or embryo-foetal toxic effects at the highest dose tested, 125 mg/kg/day. The maternal and foetal NOEL's are considered to be 125 mg/kg.

Mutagenicity: Not mutagenic in Ames bacterial assay, Chinese hamster ovary cell point mutation assay, or rat liver DNA repair assay; positive in the in vitro Chinese hamster ovary cell cytogenetic assay but negative in the in vivo rat bone marrow cytogenetic assay.

SECTION 12 – ECOLOGICAL INFORMATION

ECOTOXICITY:

Effects on Birds: Not hazardous to birds.

Reported values for hexazinone:

LD50 (bobwhite quail): >2258mg/kg

Eight day dietary LC50 (bobwhite quail and mallard ducks): >10,000mg/kg diet.

Effects on Aquatic Organisms: May be hazardous to aquatic organisms.

Reported values for hexazinone:

96 hr LC50 (bluegill sunfish): > 370 mg/L

96 hr LC50 (rainbow trout): > 320 mg/L

96 hr LC50 (fathead minnow): 274 mg/L

48 hr EC50 (Daphnia): 442 mg/L

Effects on Other Organisms: Hexazinone is non-toxic to bees. LD50 > 60 µg/bee.

ENVIRONMENTAL FATE:

Breakdown in Soil and Water:

Microbial degradation of Hexazinone occurs in soil and natural waters. The triazine ring is broken, with the liberation of carbon dioxide. DT50 in soil c. 1-6 months, depending on climate and soil type.

SECTION 13 - DISPOSAL CONSIDERATIONS

Do not dispose of undiluted chemicals on site. Puncture or shred and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm 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

UN NUMBER: None allocated
ADG: Not a Dangerous Good. No special transport conditions are necessary unless required by other regulations.
HAZCHEM CODE: None allocated

SECTION 15 – REGULATORY INFORMATION

HAZARD CLASSIFICATION: Classified as hazardous according to the criteria of the National Occupational Health & Safety Commission (NOHSC)
SUSDP: Schedule 6
APVMA: Registered according to the Agricultural and Veterinary Chemicals act 1988. APVMA Product No. 61923.

SECTION 16 –OTHER INFORMATION

Revised May 2009
Literary references:

- 1) Standard for the Uniform Scheduling of Drugs and Poisons – Commonwealth Department of Health and Aging
- 2) Australian Inventory of Chemical Substances (AICS)

ACRONYMS:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS	Australian Inventory of Chemical Substances
CAS number	Chemical Abstracts Service Registry Number
NOHSC	National Occupational Health and Safety Commission
NOS	Not otherwise specified
SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
TLV	Threshold Limit Value
TWA	Time Weighted Average
UN Number	United Nations Number

THIS MSDS 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 MSDS 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.