

# MATERIAL SAFETY DATA SHEET



Date of Issue: September 10, 2007

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product name** **Sencor® 750 WG Herbicide**

**Other names** None

**Product codes and pack sizes** 4953915 (2.5 kg)

**Chemical group** Triazinone

**Recommended use** Herbicide for agricultural use

**Formulation** Water dispersible granule (WG)

**Supplier** Bayer CropScience Pty Ltd ABN 87 000 226 022

**Address** 391 - 393 Tooronga Road, East Hawthorn  
Victoria 3123, Australia

**Telephone** (03) 9248 6888

**Facsimile** (03) 9248 6800

**Website** [www.bayercropscience.com.au](http://www.bayercropscience.com.au)

**Contact** Development Manager (03) 9248 6888

**Emergency Telephone Number** 1800 033 111 – Orica SH&E Shared Services

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**  
**HAZARDOUS SUBSTANCE (see Risk phrase below) – NON DANGEROUS GOOD (road/rail)**  
**Very toxic to aquatic organisms**

**Hazard classification** Hazardous (National Occupational Health and Safety Commission - NOHSC)

**Risk phrases** R20/22 – Harmful if inhaled and if swallowed.  
R49 – May cause cancer by inhalation.

**Safety phrases** See Sections 4, 5, 6, 7, 8, 10, 12, 13

**ADG classification** Not a "Dangerous good" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. If the product is shipped by sea it is a Marine Pollutant. See Section 14.

**SUSDP classification (Poisons Schedule)** 5 (Standard for the Uniform Scheduling of Drugs and Poisons)

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration (g/kg)
Metribuzin	[21087-64-9]	750
Kaolin	[1332-58-7]	≈ 100
Quartz (silica crystalline) – in kaolin	[14808-60-7]	(≈ 4 - in kaolin)
Other ingredients, including surfactant and dispersing agents	(non hazardous)	≈ 150

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## 4. FIRST AID MEASURES

**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 the doctor.**

<b>Inhalation</b>	If inhaled remove to fresh air and keep at rest. Obtain medical advice if at all worried. If not breathing give artificial respiration and get medical attention as soon as possible.
<b>Skin contact</b>	Carefully remove contaminated clothing. Wash affected areas with soap and water. Seek medical aid if at all worried.
<b>Eye contact</b>	Rinse eyes immediately with clean water for at least 15 minutes and obtain medical aid.
<b>Ingestion</b>	Wash out mouth with water. Do NOT induce vomiting. Keep patient at rest and seek medical advice as above.
<b>First Aid Facilities</b>	Ensure washing facilities are available, including an eyewash station.
<b>Medical attention</b>	<i>Local contamination:</i> Treatment should be symptomatic after decontamination. In case of skin or eye contamination, treat as above under First Aid Measures. <i>Systemic poisoning:</i> Poisoning is accompanied by breathing difficulties and sedation. There is no specific antidote. Treat symptoms.

## 5. FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Water spray, dry chemical
<b>Hazards from combustion products</b>	In a fire, oxides of carbon, nitrogen and sulphur, methyl mercaptan, hydrogen cyanide and amines may be formed.
<b>Precautions for fire fighters</b>	Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise, spray them to cool. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Contamination of water bodies should be avoided.
<b>Hazchem code</b>	Not applicable

## 6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Do not smoke, eat or drink during the clean up process. Avoid breathing dust. Eliminate all sources of ignition. Wear personal protective clothing and equipment as detailed in Section 8 PERSONAL PROTECTION. Keep people and animals away. Contain spillage. Avoid creating dust by damping down. Prevent spilled material from entering drains or watercourses. Shovel or sweep up, and transfer into plastic drums. Clean floor with a damp cloth and place it in the drum. Seal drums and label ready for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc. is unavoidable, warn the local water authority.

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## 7. HANDLING AND STORAGE

<b>Handling</b>	Keep out of reach of children. Harmful if inhaled or swallowed. May irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale dust or spray mist. Wash hands after use. Keep product away from heat and sources of ignition.
<b>Storage</b>	Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.
<b>Flammability</b>	Low flammability. However, if a dust forms, dust / air mixtures can be explosive.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Exposure standards</b>	The National Occupational Health and Safety Commission (NOHSC) exposure standard (TWA) for metribuzin is 5 mg/m <sup>3</sup> . The NOHSC exposure standard (TWA) for kaolin is 10 mg/m <sup>3</sup> . The NOHSC exposure standard (TWA) for quartz (crystalline silica) is 0.1 mg/m <sup>3</sup> .
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*Exposure standard – Time Weighted Average (TWA)* means the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

<b>Biological limit values</b>	Production workers and agricultural workers handling this product regularly should be monitored for the effects of crystalline silica. A baseline level should be established prior to any potential exposure. See Guidelines for Health Surveillance [NOHSC:7039(1995)].
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<b>Engineering controls</b>	Control process conditions to avoid contact. Use in a well-ventilated area only. Use local exhaust ventilation to keep exposure levels below the exposure limits above.
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<b>Personal Protective Equipment</b>	Eyes:	Safety goggles if exposure is possible
	Clothing:	Cotton overalls buttoned to the neck and wrist and a washable hat
	Gloves:	Elbow-length PVC gloves
	Respiratory:	If airborne concentrations are likely to exceed the exposure standards above, an AS/NZS 1715/1716 approved respirator should be worn.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Off white to light grey granules with a bluish cast
<b>Odour:</b>	Musty
<b>pH:</b>	Not available
<b>Vapour pressure:</b>	0.058 mPa at 20° C (metribuzin)
<b>Vapour density:</b>	Not available
<b>Boiling point:</b>	Not applicable
<b>Freezing/melting point:</b>	Not available
<b>Solubility:</b>	Dispersible in water
<b>Bulk density:</b>	0.53 to 0.59 g/cm <sup>3</sup>
<b>Flash Point:</b>	Not applicable
<b>Flammability (explosive) limits:</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Partition coefficient (octanol/water):</b>	<i>Metribuzin</i> : Log P <sub>ow</sub> = 1.6 at 20° C and pH 5.6

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable under normal conditions of use.
<b>Conditions to avoid</b>	Heat. Prevent formation of dust.
<b>Incompatible materials</b>	Avoid strong alkalis, ketones and aldehydes.
<b>Hazardous decomposition products</b>	In a fire, oxides of carbon, nitrogen and sulphur, methyl mercaptan, hydrogen cyanide and amines may be formed.
<b>Hazardous reactions</b>	None

## 11. TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

<b>Inhalation</b>	Harmful if inhaled.
<b>Skin contact</b>	May irritate the skin.
<b>Eye contact</b>	Will irritate the eyes.
<b>Ingestion</b>	Harmful if swallowed.

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## 11. TOXICOLOGICAL INFORMATION - continued

### ANIMAL TOXICITY DATA – PRODUCT

#### Acute:

<b>Oral toxicity</b>	LD <sub>50</sub> male rat: 2365 mg/kg LD <sub>50</sub> female rat: 1449 mg/kg
<b>Dermal toxicity</b>	LD <sub>50</sub> rat: > 2000 mg/kg LD <sub>50</sub> rabbit: > 5000 mg/kg
<b>Inhalation toxicity</b>	LC <sub>50</sub> rat: > 4.84 mg/L – 4 hour exposure to dust - highest attainable concentration
<b>Skin irritation</b>	Slightly irritating (rabbit)
<b>Eye irritation</b>	Moderately irritating (rabbit)
<b>Sensitisation</b>	Not a dermal sensitiser (guinea pig)

#### Chronic:

No evidence of carcinogenic potential was observed in chronic feeding studies with metribuzin in rats and mice. Metribuzin is not genotoxic, teratogenic or a reproductive toxin. Target organs are the thyroid and the liver. This product contains less than 1% crystalline silica, which is a naturally-occurring mineral component of many sands and clays. Excessive long-term exposure to respirable crystalline silica may cause lung damage. Crystalline silica is classified as a carcinogen.

## 12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms. It has a low hazard to earthworms and bees. DO NOT contaminate streams, rivers or waterways with Sencor 750 WG or the used containers.

#### **Ecotoxicity**

##### Metribuzin:

<i>Fish toxicity:</i>	LC <sub>50</sub> (96 h) golden orfe 141.6 mg/L LC <sub>50</sub> (96 h) rainbow trout 74.6 mg/L
<i>Daphnia toxicity:</i>	<i>Daphnia magna</i> LC <sub>50</sub> (48 h) 49.6 mg/L
<i>Algal toxicity:</i>	E <sub>r</sub> C <sub>50</sub> green algae ( <i>Scenedesmus subspicatus</i> ) 0.021 mg/L
<i>Toxicity to bacteria:</i>	EC <sub>50</sub> activated sludge 761 mg/L
<i>Bird toxicity:</i>	Acute oral LD <sub>50</sub> bobwhite quail 164 mg/kg Acute oral LD <sub>50</sub> mallard duck 460 - 680 mg/kg

#### **Environmental fate, persistence and degradability, mobility**

Metribuzin is rapidly degraded in soil with microbial breakdown the major mechanism of loss. Losses due to photodecomposition or volatilisation are insignificant. DT<sub>50</sub> in soil is approx. 1-2 months. DT<sub>50</sub> in pond water is approx 7 days.

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## 13. DISPOSAL CONSIDERATIONS

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. Unwanted product should be disposed of by a reputable waste disposal contractor.

## 14. TRANSPORT INFORMATION

<b>UN number</b>	Not applicable (road/rail)
<b>Proper shipping name</b>	Not applicable (road/rail)
<b>Class and Subsidiary Risk</b>	Not applicable (road/rail)
<b>Packing Group</b>	Not applicable (road/rail)
<b>EPG</b>	Not applicable (road/rail)
<b>Hazchem code</b>	Not applicable (road/rail)
<b>Marine Pollutant</b>	Yes – If this product is shipped by sea it is a Class 9, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (metribuzin mixture), UN 3077, Packing Group III, Hazchem 2Z Marine Pollutant.

## 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Act 1988

Australian Pesticides and Veterinary Medicines Authority approval number: 49382

See also Section 2.

## 16. OTHER INFORMATION

**Trademark information** Sencor® is a Registered Trademark of Bayer.

**Preparation information** Replaces February 20, 2006.  
Reasons for revision: Risk phrases, handling, and biological limit values.

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 should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

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.

END OF MSDS