

## SAFETY DATA SHEET



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Date of Issue: January 2014  
MSDS No. FMC/BAL750/1

### SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name: FMC BALLAST 750 WG HERBICIDE**

**Other Names:** Isoxaflutole. Pigment inhibitor.  
**Use:** Herbicide for control of various broadleaf weeds and grasses.  
**Company:** FMC Australasia Pty Ltd.  
**Address:** 5 Palmer Place, Murarrie, Qld 4172  
**Telephone Number:** 07 3908 9208 **Fax Number:** 07 3908 9221  
**Emergency Telephone Number:** 1800 033 111 (All hours - Australia wide).

### SECTION 2 HAZARDS IDENTIFICATION

**Classified as hazardous according to criteria of Safe Work Australia.  
Not classified as a Dangerous Good according to the ADG Code.**

**GHS Classification:**

Toxic to Reproduction: Category 2.

**Signal Word:** WARNING.

**Hazard Statements:**

H361 Suspected of damaging fertility or the unborn child.

**Precautionary statements:**

*Prevention:*

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P281 Use personal protective equipment as required.

*Response:*

P308+P313 IF exposed or concerned: Get medical advice/ attention:

*Storage:*

P405 Store locked up.

*Disposal:*

P501 Dispose of contents/container in accordance with national regulations.

**Pictograms:**



### SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients:**

<b>CHEMICAL</b>	<b>CAS NUMBER</b>	<b>PROPORTION</b>
Isoxaflutole	141112-29-0	75 %
Other ingredients determined not to be hazardous	mixture	Balance

## **SECTION 4 FIRST AID MEASURES**

### **FIRST AID**

- Swallowed:** If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed, do not induce vomiting. Give a glass of water. If any discomfort persists seek medical advice.
- Eye:** Brush granules gently away. Hold eyes open and flood with clean water. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. If irritation persists, seek medical advice.
- Skin:** Brush granules gently off clothing and skin. Remove contaminated clothing. Wash skin thoroughly with soap and water. If skin is irritated, seek medical advice.
- Inhaled:** Remove patient to fresh air. If breathing discomfort occurs, obtain medical attention.

**Advice to Doctors:** There is no special antidote. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. Carefully monitor the liver functions. Treatment is otherwise symptomatic and supportive.

## **SECTION 5 FIRE FIGHTING MEASURES**

**Specific Hazard:** In common with many granular products, this product may form flammable dust clouds in air (weak to moderately explodable).

**Extinguishing media:** Foam, CO<sub>2</sub> or dry chemical. Soft stream water fog if no alternatives. Contain all runoff. If not available, use waterfog or fine water spray but ensure all runoff is contained.

**Hazards from combustion products:** On burning will emit toxic fumes of carbon monoxide, carbon dioxide, oxides Nitrogen and sulfur and hydrogen fluoride.

**Precautions for fire-fighters and special protective equipment:** Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated.

## **SECTION 6 ACCIDENTIAL RELEASE MEASURES**

**Emergency procedures:** Isolate and post spill area. Keep out unprotected persons and animals. Wear cotton overalls buttoned at the neck and wrist (or equivalent clothing), a washable hat, elbow-length chemical resistant gloves and face shield or goggles. Large spills should be dyked or covered to prevent dispersal. Vacuum shovel or pump spilled material into an approved container and dispose of as listed in section 13.

**Material and methods for containment and cleanup procedures:** To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

## **SECTION 7 HANDLING AND STORAGE**

**Precautions for Safe Handling:** Ensure containers are kept closed until using product. Will irritate the eyes and skin. Avoid contact with eyes and skin. If product in eyes, wash it out immediately with water. When opening the container and preparing the spray, wear cotton overalls buttoned at the neck and wrist (or equivalent clothing), a washable hat, elbow-length chemical resistant gloves and face shield or goggles. When using the prepared spray wear cotton overalls buttoned at the neck and wrist (or equivalent clothing), a washable hat, elbow-length chemical resistant gloves. Wash hands after use. After each days use, wash gloves, face shield or goggles and contaminated clothing.

**SECTION 7 | HANDLING AND STORAGE (Continued)**

**Conditions for Safe Storage:** DO NOT store near (or allow to contact) fertilizers, fungicides or pesticides. Store in closed original containers, in a cool, well ventilated area away from children, animals, food and feedstuffs. Do not store for prolonged periods in direct sunlight.

**SECTION 8 | EXPOSURE CONTROLS / PERSONAL PROTECTION**

**National Exposure Standards:**

No exposure standard for Isoxaflutole has been established by Safe Work Australia.

**Biological Limit Values:**

No biological limit allocated.

**Engineering controls:**

Use in ventilated areas only. Avoid dust formation. Keep containers closed when not in use.

**Personal Protective equipment (PPE):**

General: When opening the container and preparing the spray, wear cotton overalls buttoned at the neck and wrist (or equivalent clothing), a washable hat, elbow-length chemical resistant gloves and face shield or goggles. When using the prepared spray wear cotton overalls buttoned at the neck and wrist (or equivalent clothing), a washable hat, elbow-length chemical resistant gloves. Wash hands after use. After each days use, wash gloves, face shield or goggles and contaminated clothing..

Personal Hygiene: Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

**SECTION 9 | PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	White to beige granules.
<b>Odour:</b>	No odour.
<b>Boiling point:</b>	Not available.
<b>Freezing point:</b>	Not available.
<b>Specific Gravity:</b>	1.05 g/mL.
<b>pH:</b>	7-10 (dispersion in water).
<b>Solubility in Water:</b>	Product disperses in water.
<b>Flammability:</b>	No data.
<b>Flashpoint (°C):</b>	Not applicable.
<b>Flammability Limits (%):</b>	Not established.
<b>Poisons Schedule:</b>	Product is a schedule 5 poison.

**SECTION 10 | STABILITY AND REACTIVITY**

**Chemical Stability:** Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

**Conditions to avoid:** Do not store for prolonged periods in direct sunlight or near heat sources.

**Incompatible materials:** Strong acids, strong bases, strong oxidising agents..

**Hazardous decomposition products:** On burning will emit toxic fumes of carbon monoxide, carbon dioxide, oxides Nitrogen and sulfur and hydrogen fluoride.

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

**SECTION 11 | TOXICOLOGICAL INFORMATION**

**Potential Health Effects:**

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

**SECTION 11 TOXICOLOGICAL INFORMATION (Continued)****Acute**

**Swallowed:** Low acute oral toxicity; the acute oral LD<sub>50</sub> (rat) > 5000 mg/kg.

**Eye:** May produce slight irritation to the eye.

**Skin:** May produce slight irritation to the skin. Low acute oral toxicity, the dermal LD<sub>50</sub> (rabbit) > 2000 mg/kg. Not a skin sensitiser.

**Inhaled:** Low acute inhalation toxicity. Acute inhalation LC<sub>50</sub> = 5.26 mg/L/4 hour.

**Chronic:** Developmental toxicity was observed in rats and rabbits primarily as growth retardations, including delays in skeletal ossification, effects that have been observed with other HPPD inhibitors (e.g., pyrasulfotole). There was no evidence of reproductive toxicity in the 2-generation reproductive toxicity study in rats; however, both adults and offspring exhibited ocular and liver toxicities as seen in long-term studies. The observed effects do not appear to be relevant for humans.

Isoxaflutole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

In the acute and subchronic neurotoxicity studies in rats, mild changes in functional-observation battery (FOB) parameters (grip strength and/or landing foot splay) were observed in adult animals. However, similar effects were not observed either in pregnant animals or in offspring in a developmental neurotoxicity (DNT) study in rats. Isoxaflutole is classified as "suspected of damaging fertility or the unborn child". In both maternal animals and offspring, changes in body weight and/or food consumption were the primary effects seen in the DNT study and at the same dose tested. Decreased brain weights were observed in offspring on post-natal day (PND) 11 at the high dose only, but not at a later time point, an indicator of a developmental delay and/or a secondary effect of the decreased body weight. Although morphometric analyses were not performed in the study, there were no effects on pup swimming ability, learning, memory, motor activity, or auditory startle response at any dose, nor was there any evidence of neuropathology in the study at any dose. In carcinogenicity studies, isoxaflutole induced liver and thyroid tumors in rats and liver tumors in mice.

**SECTION 12 ECOLOGICAL INFORMATION**

**Environmental Toxicology:** Isoxaflutole is very toxic to aquatic organisms. Toxicity to fish: LC<sub>50</sub> (96 hr) > 1.7 mg/L (*Oncorhynchus mykiss*), LC<sub>50</sub> (96 hr) 0.016 mg/L (Algae – *Selenastrum capricornutum*). LC<sub>50</sub> (14 days) 0.003 mg/L (Duckweed). Low toxicity to birds LD<sub>50</sub> > 2150 mg/kg (Mallard duck), LD<sub>50</sub> > 2150 mg/kg (Bobwhite quail).

**Environmental Properties:** Isoxaflutole, has a half-life of 12 hours to 3 days, depending on soil type and other factors, also converts to diketonitrile in the soil. Isoxaflutole is retained at the soil surface, allowing it to be taken up by surface germinating weed seeds, whereas diketonitrile, which has a half-life of 20 to 30 days, penetrates the soil and is taken up by plant roots. In both plants and in the soil, diketonitrile is converted to the herbicidally inactive benzoic acid. This degradation is more rapid in maize than in susceptible weed species and this contributes to the mechanism of selectivity, together with the greater sowing depth of the crop. Low potential to bioaccumulate.

Isoxaflutole is mobile and is expected to persist and accumulate in surface water and groundwater

**SECTION 13 DISPOSAL CONSIDERATIONS**

**Spills & Disposal:** In the case of spillage, contain and absorb spilled material with absorbent material such as sand, clay or cat litter and dispose of waste as indicated below or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Wear prescribed protective clothing and equipment. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local or State Waste Management Authorities.

**SECTION 13 DISPOSAL CONSIDERATIONS (Continued)**

*Dangerous to aquatic plants:* Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

**Disposal of empty containers:** Single rinse before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemical on-site. Puncture and bury empty bags in a local authority landfill. If no landfill is available, bury the container below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Empty bags and product should not be burnt. Do not use container for any other use.

**SECTION 14 TRANSPORT INFORMATION**

**Road & Rail Transport:** FMC Ballast 750 WG is not classified as a Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail in containers less than 3000 kg. Bulk shipments should use UN 3077, as per below.

**Marine and Air Transport:** FMC Ballast 750 WG is a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:-  
UN 3077, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains 75% Isoxaflutole).

**SECTION 15 REGULATORY INFORMATION**

Classified as a hazardous substance according to criteria of Safe Work Australia. (Xi, Xn).  
Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 5 poison.  
This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 69575.  
Product is not classified as a Dangerous Good according to the ADG Code (7<sup>th</sup> Ed) in containers less than 3000 kilograms.  
Product is classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).  
*Requirements concerning special training:*  
Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

**SECTION 16 OTHER INFORMATION**

Issue Date: 17 January 2014. Valid for 5 years. (First issue).

Key to abbreviations and acronyms used in this SDS:

- ADG Code: Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).
- Bradycardia: Is a resting heart rate of under 60 beats per minute (adults).
- Carcinogen: An agent which is responsible for the formation of a cancer.
- Clonic: An abnormality in neuromuscular activity characterized by rapidly alternating muscular contraction and relaxation.
- Genotoxic: Capable of causing damage to genetic material, such as DNA.
- Haematopoietic: Pertaining to the formation of blood or blood cells.
- Lavage: The irrigation or washing out of an organ, as of the stomach or bowel.
- Mutagen: An agent capable of producing a mutation.
- Oedema: Accumulation of fluid in tissues.
- LD<sub>50</sub>: Median Lethal Dose. A statistically derived single dose of a substance that can be expected to cause death in 50% of dosed animals.
- NOHSC: National Occupational Health and Safety Commission.
- Teratogen: An agent capable of causing abnormalities in a developing foetus.

**SECTION 16 OTHER INFORMATION (Continued)**

Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

References

1. "Search Hazardous Substances". Safe Work Australia website. (2014).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United Nations, 2009.

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 should read this SDS 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.

*End SDS*