

FARM-AG INTERNATIONAL (Pty) Ltd

P.O. Box 1523, Durban 4000

Head Office : 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe **South Africa**

Registration Number: 2005/011761/07

Tel + 27 31 003 3486 • Fax + 27 31 502 5825

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**Product Name:** FARMAG HEXAZINONE 750 WG**Creation Date:** May 2015**Revision Date:** March 2021**24 Hr Emergency Number:** 082 771 2712**In case of poisoning:**

Poison Information Centre: 082 446 8946

Tygerberg Hospital: (021) 931 6129

Poison Emergency Enquiries (021) 689 5227

In case of Spillage:

HAZMAT: 0800 147 112

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS**Common name:** hexazinone**Chemical name:** (3-cyclohexyl-6-(dimethylamino)-1-methyl-1,3,5- triazine-2,4(1H,3H)-dione)**Chemical family:** triazine**CAS Number:** 51235-04-2**Use:** Herbicide**Un number:** 3077**SECTION 3 - HAZARD IDENTIFICATION****Main Hazard**

DANGER!

Causes eye damage. Corrosive, causes irreversible eye damage.

Potential Health Effects**HUMAN HEALTH EFFECTS OF OVEREXPOSURE TO HEXAZINONE:**

Overexposure to hexazinone by eye contact may initially include eye irritation with discomfort, tearing, or blurring of vision. Ingestion may include abnormal liver function as detected by laboratory tests. Significant skin permeation and systemic toxicity after contact appears unlikely. Individuals with preexisting diseases of the liver may have increased susceptibility to the toxicity of excessive exposures. Carcinogenicity Information None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS**EYE CONTACT :** Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention. **SKIN****CONTACT :** Flush skin with water after contact. Wash contaminated clothing before reuse.**INHALATION :** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.**INGESTION :** If swallowed, call a physician or Poison Control Center. Do not induce vomiting. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.**Notes to Physician :** Probable mucosal damage may contraindicate the use of gastric lavage.**SECTION 5 - FIRE-FIGHTING MEASURES****Flammable Properties :** Not a fire or explosion hazard.**Extinguishing Media :** Use media appropriate for surrounding material**Fire Fighting Instructions :** Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment.

FARM-AG INTERNATIONAL (Pty) Ltd

P.O. Box 1523, Durban 4000

Head Office : 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe **South Africa**

Registration Number: 2005/011761/07

Tel + 27 31 003 3486 • Fax + 27 31 502 5825

If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

SECTION 6 - ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Emergency Response - Chemical resistant coveralls, waterproof gloves, waterproof boots and face/eye protection. If dusting occurs, use NIOSH approved respirator protection.

Initial Containment

Dike spill. Prevent material from entering sewers, waterways, or low areas.

Spill Clean Up

Shovel or sweep up.

SECTION 7 - HANDLING AND STORAGE REQUIREMENTS

Handling (Personnel)

Do not get in eyes. Avoid breathing dust. Avoid contact with skin. Avoid contact with clothing. USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Storage

Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Guidelines

Applicable Exposure Limits

HEXAZINONE

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL *	: 10 mg/m ³ , 8 Hr. TWA

* AEL is the Acceptable Exposure Limit as proposed by Du Pont, USA. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

Engineering Controls

Use only with adequate ventilation.

Personal Protective Equipment

Always follow the label instructions when handling this product.

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Shoes plus socks.

Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

PE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or after is:

Coveralls.

FARM-AG INTERNATIONAL (Pty) Ltd

P.O. Box 1523, Durban 4000

Head Office : 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe **South Africa**

Registration Number: 2005/011761/07

Tel + 27 31 003 3486 • Fax + 27 31 502 5825

Waterproof gloves.
Shoes plus socks.
Protective eyewear..

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: : Dry Flowable Granules.
Odour : Acrid (slight).
Colour : Tan (light).
pH : 8.4 (1% wt/wt in water)
Bulk Density : 0.58 g/mL
Solubility in Water : Water Dispersible.

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability : Stable at normal temperatures and storage conditions.
Incompatibility with Other Materials : Incompatible or can react with strong bases.
Decomposition : Decomposition will not occur.
Polymerization : Polymerization will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ : calculated to be 1310 mg/kg in rats.
Acute Dermal LD₅₀ : > 5000 mg/kg in rabbits.
Inhalation 4 hour LC₅₀ : > 5.2 mg/L in rats.

Eye Irritation : 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.

Skin Irritation and Sensitization : According to criteria established by the U.S. EPA this product is considered to be a moderate skin irritant. According to criteria established by EEC Directive 93/21 this product can be classified a non-irritant. Product is not a skin sensitizer in tests on guinea pigs.

OTHER STUDIES - Hexazinone

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

Oral (mouse): In a 2-year feeding study with technical material, the no-observable-effect level (NOEL) was 200 ppm. Decreased body weight gain was observed in both sexes at 2500 ppm and 10000 ppm. This effect was severe at 1000 ppm, the highest level tested. Non-neoplastic liver effect were noted in males at 2500 ppm and in both sexes at 1000 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 with technical material, 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 hematological parameters at the high dose. Increased liver weights and other non-neoplastic liver effects as indicated by histopathology and changes in clinical chemical parameters were observed at 1500 and/or 60000 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 (2generation, 3-litter study) was conducted at dietary doses 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 the higher doses.

Teratogenicity: Not teratogenic or embryo-fetal 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 fetal effects of 100 mg/kg body wt./day. Maternal toxicity (reduced

FARM-AG INTERNATIONAL (Pty) Ltd

P.O. Box 1523, Durban 4000

Head Office : 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe South Africa

Registration Number: 2005/011761/07

Tel + 27 31 003 3486 • Fax + 27 31 502 5825

food consumption and lower body weights) was observed at 400 and 900 mg/kg. Lower fetal weights and indications of general delayed development associated with maternal toxicity were also observed at these doses. When hexazinone was administered to rabbits via oral intubation, there were no teratogenic or embryofetal toxic effects at the highest dose tested, 125 mg/kg/day. Only a transient reduction in maternal food consumption was observed at the high dose. The maternal and fetal NOELs 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**Ecotoxicological Information****Aquatic Toxicity**

For the active ingredient hexazinone:

96 Hour LC₅₀, bluegill sunfish: >370 ppm

96 Hour LC₅₀, rainbow trout : >320 ppm

96 hour LC₅₀, fathead minnow : 274 ppm

SECTION 13 - DISPOSAL CONSIDERATION**Waste Disposal**

Do not contaminate water supply, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not flush to surface water or sanitary sewer system. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

Container Disposal

Completely empty bag into application equipment. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

Not classified as Dangerous for Transport. (See SABS 0228: Annexure D)

UN NUMBER 3077
ADR/IRD Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Hexazinone 75%)
Classification code: M 7
Class: 9 Marine pollutant.
Packaging group: III

IMDG/IMO

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Hexazinone 75%)
Class: 9
Label: 9 Marine pollutant
Packaging group: III

AIR/IATA

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Hexazinone 75%)
Class: 9
Packaging group: III
Passenger Aircraft: Y911 (max 30 kg Gross weight)

911 (No Limit)

Cargo Aircraft: 911 (No Limit)

UK classification: UN 3077

Tremcard number: 90GM7-III

15. REGULATORY INFORMATION

FARM-AG INTERNATIONAL (Pty) Ltd

P.O. Box 1523, Durban 4000

Head Office : 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe **South Africa**

Registration Number: 2005/011761/07

Tel + 27 31 003 3486 • Fax + 27 31 502 5825

Symbol: Xn Harmful; N Dangerous for Environment.

Risk phrases:

R 22 Harmful if swallowed.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S 2 Keep out of the reach of children.

S 60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to this MSDS.

National Legislation:

In accordance with 91/155/EEC Directive and with French standard T 01-102 and the South African National Road Traffic, 1996(Act93 of 1996, The Fire Brigade Act, 1987(Act99 of 1987), and the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

16. OTHER INFORMATION

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors or omissions or the consequence thereof.