

1. IDENTIFICATION

Product Identifier

Product Name **KELPIE® I-SOX 750 WG HERBICIDE**

Product Code(s) **A19070C**

Other Means of Identification

Proper shipping name: Environmentally Hazardous Substance, Solid, N.O.S. (Isoxaflutole)

Recommended Use: Herbicide

Details of Manufacturer or Importer

SINOCHEM INTERNATIONAL AUSTRALIA PTY LTD
ABN: 74 160 164 616

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Macquarie Park, NSW, 2113
Australia

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Emergency Phone Number Australia: 1800 033 111

2. HAZARD IDENTIFICATION

Classification of the Hazardous Chemical: Reproductive toxicity Category 2

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations:

Acute aquatic toxicity Category 1

Chronic aquatic toxicity Category 1

Signal Word: WARNING

Hazard Statement(s): H361 Suspected of damaging fertility or the unborn child.

Precautionary Statement(s):

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.

Disposal:

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

Hazard Symbols:



3. COMPOSITION AND INFORMATION ON INGREDIENTS

Substance: Active Ingredient: Isoxaflutole

Mixture:

Identity of Chemical Ingredient	CAS Number	Proportion (w/w)
Isoxaflutole	141112-29-0	75 %
Kaolin	1332-58-7	<=10%
Crystalline silica (Quartz)	14808-60-7	<=1%
Ingredients determined not to be hazardous	-	to 100 %

4. FIRST-AID MEASURES

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

Description of Necessary First Aid Measures:

Inhalation:	If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.
Ingestion:	Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by the mouth to an unconscious patient. Seek medical advice.
Skin contact:	If skin contact occurs, remove contaminated clothing and wash skin with soap and water. If irritation occurs, seek medical advice.
Eye contact:	If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.
Symptoms Caused by Exposure:	No symptoms known or expected.
Medical Attention and Special Treatment:	There is no specific antidote available. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Small fires: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Large fires: Alcohol-resistant foam or Water spray.
Specific Hazards Arising from the Chemical:	This product may burn and/or decompose if exposed to fire. Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including oxides of nitrogen, carbon monoxide, carbon dioxide, sulphur oxides, hydrogen fluoride.

Special Protective Equipment and Precautions for Fire Fighters:

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

Hazchem Code:

2Z

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Refer to protective measures listed in sections 7 and 8.
Avoid dust formation.

Environmental Precautions:

Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and Materials for Containment and Clean Up:

Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).
Do not create a powder cloud by using a brush or compressed air.
Clean contaminated surface thoroughly.
Clean with detergents. Avoid solvents.
Retain and dispose of contaminated wash water.

For disposal considerations see section 13. Refer to protective measures listed in sections 7 and 8.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion.
Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material.
Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

Avoid inhalation of dust, and skin or eye contact. Use only in a well-ventilated area. Keep containers sealed when not in use. Prevent the build-up of dust in the work atmosphere. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Maintain high standards of personal hygiene i.e. by washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for Safe Storage, Including any Incompatibilities:

Store in a well-ventilated area away from heat and sources of ignition, out of direct sunlight and moisture. Take precautions against static electricity discharges. Use proper grounding procedures. Store away from incompatible materials such as materials that support combustion (oxidising materials). Store in suitable, labelled containers. Inspect periodically for deficiencies such as damage or leaks. Have

appropriate fire extinguishers available in and near the storage area. Ensure that storage conditions comply with applicable local and national regulations. For information on the design of the storeroom, reference should be made to Australian Standard AS/NZS 4452:1997 The storage and handling of toxic substances and AS/NZS 4745.2004 'Code of Practice for Handling Combustible Dusts'.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control Parameters:

Exposure Standards: No value assigned for this specific material by Safe Work Australia.

Chemical name	CAS Number	Exposure Limit	Value Type	Source
Kaolin	1332-58-7	10 mg/m ³	TWA	HCIS, Safe Work Australia
Silica Crystalline - Quartz (respirable dust)	14808-60-7	0.05 mg/m ³	TWA	

Biological Monitoring:

No specific biological monitoring required.

Engineering Controls:

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use.

Where necessary, seek additional occupational hygiene advice.

Personal Protective Equipment:

The use of technical measures should always have priority over the use of personal protective equipment.

When selecting personal protective equipment, seek appropriate professional advice.

Personal protective equipment should comply with relevant national standards

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, GLOVES, SAFETY GLASSES, DUST MASK



Eye/face protection:

Safety glasses.

Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.

Skin and body protection:

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. Wear as appropriate: overalls.

Hand protection:	<p>Where contact is likely, wear chemical-resistant gloves.</p> <p>Always wash hands before smoking, eating, drinking or using the toilet.</p> <p>The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.</p> <p>Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break-through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.</p>
Respiratory protection:	<p>If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.</p>

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid granules
Colour:	Brown
Odour:	Characteristic
Specific gravity:	Not applicable
pH:	4-6 (1% aqueous solution)
Melting point / freezing point:	Not available
Boiling Point/Range (°C):	Not available
Flash point (°C):	Not applicable
Flammability (solid, gas):	May form combustible dust concentrations in air.
Dust explosion class	St1 (weak to moderately explosible)
Flammability limit in air:	Not available
Upper explosive limit:	Not available
Lower explosive limit:	60 mg/m ³
Vapor pressure:	Not available
Vapor density:	Not available
Bulk density:	Not available
Water solubility:	Disperses in water
Solubility(ies):	Not available in other solvents
Partition coefficient:	Isoxaflutole: log Pow: 2.32 (20 °C)
Auto-ignition temperature (°C):	The product is not self-ignitable
Decomposition temperature:	Not available
Kinematic viscosity:	Not applicable
Dynamic viscosity:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity:	None reasonably foreseeable.
Chemical stability:	Stable under normal conditions of storage and handling.
Possibility of hazardous Reactions:	No dangerous reactions known under conditions of normal use.
Conditions to avoid:	Avoid dust generation. Avoid exposure to direct sunlight.
Incompatible materials:	Incompatible with strong oxidising agents.
Hazardous decomposition products:	Thermal decomposition may result in the release of toxic and/or irritating products: fumes including oxides of nitrogen, carbon monoxide, carbon dioxide, sulphur oxides, hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:	No adverse effects expected, however, ingestion of this product may irritate the gastric tract causing nausea and vomiting.
Eye contact:	Eye contact may cause mechanical irritation and discomfort due to the particulate nature of this product.
Skin contact:	Skin contact may cause mechanical irritation resulting in redness and itching.
Inhalation:	Inhalation of dust may cause irritation of the nose, throat and respiratory system.
Acute toxicity:	Data for isoxaflutole: Oral toxicity: LD ₅₀ , rat: >5,000 mg/kg Dermal toxicity: LD ₅₀ , rabbit: > 2,000 mg/kg Inhalation toxicity: LC ₅₀ (4h), rat: > 5.23 mg/L Skin irritation: Slight irritation (rabbit) Eye irritation: Slight irritation (rabbit) Skin sensitisation: Not a skin sensitiser (Guinea pig)
Chronic effects:	
Mutagenicity:	Isoxaflutole did not show mutagenic or genotoxic effects in animal experiments.
Carcinogenicity:	Isoxaflutole at high dose levels caused an increased incidence of tumours in the following organ(s): Liver. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.
Reproductive and Developmental toxicity:	Isoxaflutole did not cause reproductive toxicity in a two-generation study in rats. Isoxaflutole caused developmental toxicity only at dose levels toxic to the dams. Isoxaflutole caused a delayed ossification of fetuses. The developmental effects seen with Isoxaflutole are related to maternal toxicity
Specific Target Organ Toxicity (STOT) - single exposure:	The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific Target Organ Toxicity (STOT) - repeated exposure:

Isoxaflutole caused specific target organ toxicity in experimental animal studies in the following organ(s): Liver, Thyroid. The observed effects do not appear to be relevant for humans.
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard:

Not an aspiration hazard.

12. ECOLOGICAL INFORMATION**Ecotoxicity:**

Toxicity to fish:	Bluegill sunfish	96 hr LC ₅₀ :	>2.7 mg/L (isoxaflutole)
	Rainbow trout	96 hr LC ₅₀ :	>65 mg/L (similar formulation)
	Rainbow trout	96 hr LC ₅₀ :	>1.7 mg/L (isoxaflutole)
Toxicity to daphnia and other aquatic invertebrates:	<i>Daphnia magna</i>	48 hr LC ₅₀ :	5 mg/L (similar formulation)
	<i>Daphnia magna</i>	48 hr LC ₅₀ :	>1.5 mg/L (isoxaflutole)
Toxicity to algae:	Green algae <i>Raphidocelis subcapitata</i>	72 hr E _b C ₅₀ :	1.71 mg/L (isoxaflutole)
Toxicity to birds:	Bobwhite quail	LD ₅₀ :	>2,140 mg/kg (isoxaflutole)
	Mallard duck	LD ₅₀ :	>5,000 mg/kg (isoxaflutole)
Persistence/degradability:	Isoxaflutole: Not rapidly biodegradable		
		Koc:	112
Mobility in Soil:	Moderate mobility in soil		
Bioaccumulative Potential:	Low bioaccumulation potential		
	Bioconcentration factor (BCF): 11 (isoxaflutole)		

13. DISPOSAL CONSIDERATIONS

Safe Handling and Disposal Methods:	<p>Do not contaminate ponds, waterways or ditches with chemical or used container.</p> <p>Do not dispose of waste into sewer.</p> <p>Where possible recycling is preferred to disposal or incineration.</p> <p>If recycling is not practicable, dispose of in compliance with local regulations.</p>
Disposal of Contaminated Packaging:	<p>Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight.</p> <p>Single-rinse or shake remainder into spray tank.</p> <p>DO NOT dispose of undiluted chemicals on site.</p> <p>Puncture or shred and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface 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.</p> <p>DO NOT burn empty containers or product.</p>

14. TRANSPORT INFORMATION

ADG

UN number:	3077
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ISOXAFLUTOLE)
Class:	9
Packing group:	III
Hazchem Code:	2Z
Remarks:	Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the provisions of the Australian Code for the Transport of Dangerous Goods by Road and Rail when transported by road or rail in packagings, IBC's, or any other receptacle not exceeding 500 kg(L).

IATA-DGR

UN number:	3077
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ISOXAFLUTOLE)
Class:	9
Packing group:	III
Packing instruction (cargo aircraft):	956
Packing instruction (passenger aircraft):	Y956
Environmentally hazardous:	Yes

IMDG-Code

UN number:	3077
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ISOXAFLUTOLE)
Class:	9
Packing group:	III
EmS Code:	F-A S-F
Marine pollutant:	Yes

15. REGULATORY INFORMATION

APVMA Product Registration Number:	84647
Poisons Schedule (SUSMP):	Schedule 5

16. OTHER INFORMATION

Date of preparation or review: 15/06/2022

Full text of abbreviations and acronyms:

ADG	Australian Dangerous Goods Code
APVMA	Australian Pesticides & Veterinary Medicines Authority
EmS	Emergency Schedule
HCIS	Hazardous Chemical Information System – the Safe Work Australia database of chemical classifications and workplace exposure standards
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
LD ₅₀	Lethal Dose to 50% of a test population (Median Lethal Dose)
LC ₅₀	Lethal Concentration to 50 % of a test population
MARPOL	International Convention for the Prevention of Pollution from Ships
NO(A)EL	No Observed (Adverse) Effect Level
n.o.s.	Not Otherwise Specified
OECD	Organization for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
SDS	Safety Data Sheet
STEL	Short Term Exposure Limit - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
TWA	The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

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