

MATERIAL SAFETY DATA SHEET

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Name of product: ICA 70% TECHNICAL GRADE GUAZATINE
Company identification: ICA International Chemicals Pty Ltd
28 Planken Street
Plankenbrug Industrial
Stellenbosch
7600
SOUTH AFRICA

2. COMPOSITION / INFORMATION ON INGREDIENTS

Gauzatine acetates.....700 g/kg (CAS Nr. 115044-19-4)

3. HAZARDS IDENTIFICATION

HARMFUL

Harmful if swallowed (R 22)

Irritating to eyes (R 36)

Poisonous if inhaled (R23)

4. FIRST AID MEASURES

Skin: Remove contaminated clothing. Wash affected areas with plenty of soap and water.
Eye: Immediately irrigate with copious quantities of water for at least 15 minutes. Seek medical assistance and provide MSDS.
Swallowed: Give plenty of water to drink and if more than 15 minutes from hospital induce vomiting. Seek immediate medical assistance and provide MSDS.
Inhaled: Remove victim to fresh air. Seek medical advice
Advice to doctor: No specific antidote known. Treat symptomatically. For ingestion, consider gastric lavage.

5. FIRE-FIGHTING MEASURES

Not flammable, danger of toxic gases in smoke in case of fire: carbon and nitrogen oxides.

Recommended Fire-fighting media: foam, carbon dioxide, dry powders, waterspray.

Contain the spread of the fire-fighting media.

Wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

CONTAIN SPILL and recover the product by pumping, suction or absorption by using earth, sand, sawdust, clay, sweepings material or absorbent material and store in properly labeled, sealed drums for safe disposal in an approved landfill, or bury under at least 500 mm of soil in a non-crop, non-pasture area away from water sources or homes. DO NOT burn empty containers or product. Keep people away and upwind of spill.

7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing or inhalation of product. Wear long sleeved overalls and gloves while handling. After handling and before eating, drinking or smoking wash hands, arms and face with soap and water.
Storage:	Keep out reach of children in locked room. Keep away from food, drink and animal feeding stuffs. Store in original container in dry, cool well-ventilated area, out of direct sunlight.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Wear gloves, face shield or goggles, half face respirator, cotton overalls buttoned to neck and wrist. Extract vapours at their point of emission.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellow-Brown liquid with noticeable odor.
pH range:	~7
Boiling point:	104°C (G.G 4.2)
Melting point:	not applicable
Specific gravity:	1.1 kg/L at 20°C (IP 365)
Surface tension:	55mN/m at 25°C (ASTMD 1331)
Viscosity:	372 cPs at 25°C (IP71 & BP2001)
Vapour Pressure:	less than 10^{-5} Pa
Solubility in water:	highly soluble in water, >3000g/litre at 20°C
Solubility in solvents:	510 g/litre in methanol, 100 g/litre in N-methylpyrrolidone, 500 g/litre in dimethylformamide, 200 g/litre in ethanol (all at 20°C)
Partition coefficient:	(octanol/water) -1.2 log P_{ow} at pH 3
Stability:	No significant hydrolysis at pH 5, 7 and 9 after 1 month at 25°C. Product is stable for at least 2 years at ambient temperature (0°C to 50°C).
Flashpoint:	Non-flammable
Flammability limits:	Not applicable
Corrosiveness:	Non-corrosive to metals

10. STABILITY AND REACTIVITY

Stable under normal conditions of use. Product will not polymerize. No dangerous reaction known under conditions of use. No occupational exposure limits established.

11. TOXICOLOGY INFORMATION

Acute LD ₅₀ oral (rat):	300 – 500 mg/kg.
Acute LD ₅₀ dermal (rat):	> 1000 mg/kg (Generic)
Acute LD ₅₀ dermal (rabbit):	> 1000 mg/kg (Generic)
Acute LC ₅₀ inhalation (rat):	225 mg/m ³ (Generic)
Eye:	Irritant to eyes.
Skin:	Irritant to skin.

12. ECOLOGICAL INFORMATION (Generic)

Dangerous to fish. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

Not toxic to bees.

Non-teratogenic and non-carcinogenic (rats).

In rats, following oral administration, rapid and complete degradation occurs, with elimination in the urine and faeces within 2-3 days.

When applied directly to soil, guazatine is strongly bound temporarily, before undergoing deguanidation and breakdown of the octyl chain, following by mineralisation to CO₂. It is immobile in soil and is therefore unlikely to exceed 0.1 µg/litre in groundwater.

LC₅₀ (96 h) for rainbow trout 1.41 mg/litre

LC₅₀ (48 h) for daphnia 0.15 mg/litre

Acute oral LD₅₀ for pigeons is 82 mg/kg with emetic effect.

LC₅₀ (contact) for bees >200 µg/bee

LC₅₀ (14 d) for earthworms >1000 mg/kg

13. DISPOSAL CONSIDERATIONS

Manufacturer's packaging must be rinsed out after emptying.

Incineration in a licenced installation, product and contaminated packaging.

Empty, rinsed punctured containers may be buried according to local recommendations.

14. TRANSPORT INFORMATION

Proper shipping name:	Pesticide, Liquid, Toxic (Guazatine)
UN Number:	2902
Hazard Class Of Division:	6.1
Packing Group:	III
Labeling Requirements:	Poison
Risk phrase:	R 22 (Harmful if swallowed), R23 (Toxic by inhalation), R36 (Irritating to eyes).

15. REGULATORY INFORMATION

ICA 70% TECHNICAL GRADE GUAZATINE is not an end use product. It is the source of active ingredient in certain fungicide formulations. e.g.

CitriCure synonym Megacide
CitriWax

16. OTHER INFORMATION

For use as an agricultural fungicide.

This information concerns only the product conforming to its specifications and limits to the uses herein stated. This sheet complements the technical sheet of use but doesn't replace it. The information contained on this sheet is based on knowledge of the product on date of publication. It is given in good faith.