

SAFETY DATA SHEET

1. Identification of the substance or preparation and the company/undertaking

Name of preparation: Rubigan 12% SC

Use: Agricultural fungicide

Company identification: Gowan Comércio Internacional e Serviços, Limitada
Avenida do Infante 50
9004 – 521 Funchal
Madeira, Portugal
PT 511 172 400
Telephone: +351 291 232 484
Fax: +351 291 232 459

Telephone (24 hour emergency) +44 (0) 1865 407333

2. Composition/information on ingredients

Ingredients with health or environmental hazards:

<i>Ingredient</i>	<i>CAS No.</i>	<i>EC No.</i>	<i>%w/v</i>	<i>Symbol-letter(s)</i>	<i>Risk phrase(s)*</i>
Ethylene glycol	000110-71-4	203-794-9	9.52	Xn	R22
Fenarimol	60168-88-9	262-095-7	11.4	Xn, N	R62, 63, 64, 51/53

*See Section 16 for risk phrase text

Other ingredients: Inerts.

3. Hazards identification



Harmful

Health hazards: Possible risk of impaired fertility. Possible risk of harm to the unborn child. May cause harm to breastfed babies.

Environmental hazards: Harmful to aquatic organisms; may cause long-term adverse effects to the aquatic environment.

Fire hazards: None

4. First-aid measures

<i>Inhalation:</i>	Inhalation unlikely (water based). Remove patient from exposure into fresh air, and keep at rest. Obtain medical aid if symptoms occur.
<i>Eye contact:</i>	Irrigate eyes with eyewash solution or clean water, holding the eyelids apart, for at least fifteen minutes (do not let run-off water contaminate unaffected eye). Obtain immediate medical aid.
<i>Skin contact:</i>	Remove contaminated clothing and wash affected area thoroughly with soap and water. Report for medical attention.
<i>Ingestion:</i>	May cause vomiting and diarrhoea. Do not induce vomiting. Give patient plenty of water to drink if conscious, keep warm and at rest. If unconscious, place/transport patient in secured side recovery position. Obtain immediate medical aid.
<i>Advice to physician:</i>	Treatment should be symptomatic and supportive.

5. Fire-fighting measures

<i>Fire hazard:</i>	None (water based).
<i>Extinguishing media:</i>	Extinguish fire with extinguishants appropriate to the flammable/combustible materials involved. Keep unopened undamaged containers exposed to fire cool by spraying with water fog, if without risk of personal exposure to fire or chemical.
<i>Exposure hazards:</i>	Heated liquid may decompose to release toxic fumes. Heated drums may burst violently.
<i>Protective equipment:</i>	Wear chemical-resistant protective clothing and self-contained breathing apparatus.
<i>Note:</i>	Prevent run-off water contaminating drains or watercourses (bund if necessary); inform appropriate authority immediately if this happens.

6. Accidental release measures

<i>Personal precautions:</i>	Ensure adequate ventilation (see Section 8 if this is not possible). Avoid contamination with chemical; wear personal protective equipment (see Section 8). Keep people and animals away.
<i>Environmental precautions:</i>	Prevent chemical contaminating drains or watercourses (bund if necessary); inform appropriate authority immediately if this happens. Prevent chemical contaminating soil.

6. Accidental release measures - continued

Clean-up measures: Shut off leak if possible without risk of personal exposure to chemical. Contain large spillages with portable barriers etc and pump into suitable drums. Otherwise, or in the case of small spillages, contain/absorb with proprietary absorbent material or sand or earth; shovel up into suitable drums for safe disposal (see Section 13). Subsequently, wash affected surfaces with detergent and water.

7. Handling and storage

Handling: Ensure appropriate measures (eg engineering controls and/or personal protective equipment) are in place to minimise exposure – see Section 8. Avoid contact with skin or eyes. Avoid inhaling vapour in the unlikely event of it being present in significant amounts.

Storage: Store in a cool, dry, designated area in original containers or suitable alternatives, and in accordance with any label storage advice. Rotate stock and check regularly for leakers.

8. Exposure controls and personal protection

Refer to workplace risk assessment and exposure control measures. Exposure should be minimised by the use of appropriate containment, engineering control and ventilation measures. Where this is not possible, personal protective equipment should be worn as indicated below (in circumstances where the likelihood of exposure is minimal, eg very small spillage in a well ventilated area, some of the personal protective equipment described may not be appropriate – consult a specialist before disregarding).

Occupational exposure standards: None specified.

Respiratory protection: Inhalation unlikely (water based product). In an emergency where significant exposure is likely wear self contained breathing apparatus.

Eye protection: Wear goggles with side pieces or visor or full face mask as appropriate for the activity concerned.

Hand protection: Wear pvc, rubber or nitrile gloves. Check regularly for condition when using.

Skin protection: Wear chemical resistant overalls (disposable, or clean reusable), rubber or pvc boots, rubber or pvc apron as appropriate.

General hygiene: Wash after handling chemical or immediately if contamination occurs. Do not eat, drink or smoke. Decontaminate personal protective equipment before removal; if not possible, dispose of as contaminated waste.

9. Physical and chemical properties

Appearance:	Milky white liquid	Odour:	No data
Density:	1.05 g/ml	Vapour density	Probably as for water
Vapour pressure:	Probably as for water	Evaporation rate:	Probably as for water
Melting point:	No data	Boiling point:	>100°C
Flash point:	Not combustible	Autoignition temp.:	Not combustible
Flammability in air	Not combustible	Explosive potential†:	Not explosive
Oxidising potential	Not oxidising	Solubility in water:	Miscible
Log Po/w	No data	pH:	7.9 (in water)
Viscosity:	No data		

†inherent property of bulk material.

10. Stability and reactivity

Conditions to avoid: Stable under normal conditions of storage and use (see Section 7).

Materials to avoid: None known other than those which react with water.

Hazardous decomposition products: None known. See Section 5 for thermal decomposition products.

11. Toxicological information

The following information is based on a similar formulation:

Inhalation: Adverse effects due to inhalation unlikely under normal circumstances (water based product)

Eye contact: Possibly irritating to eyes (but not classifiable as such).

Skin contact: Low acute toxicity: rabbit dermal LD50 >2000 mg/kg. No evidence of primary irritancy or sensitisation.

Ingestion: Low acute toxicity: rat oral LD50 >2000 mg/kg.

Chronic toxicity: The ingredients of this preparation are not classified by their suppliers as carcinogenic or mutagenic under EU rules. Fenarimol is toxic for reproduction (category 3), presenting possible risks of impaired fertility, harm to the unborn child and harm to breastfed babies; the other ingredients are not classified as toxic for reproduction.

12. Ecological information

Aquatic toxicity: Harmful to aquatic organisms*. BCF = 113 (whole fish, fenarimol).

Avarian toxicity: Low acute toxicity: bird (unspecified) LD50 >2000 mg/kg (fenarimol).

Toxicity to honey bees: >10µg fenarimol/bee

Mobility: No data.

12. Ecological information - continued

Persistence/degradability: Fenarimol undergoes microbial degradation in soil, accelerated by light, but is not readily degradable. Considered to present long-term adverse effects to the aquatic environment.

**Estimated by application of EU Conventional Method criteria.*

13. Disposal considerations

This material should be disposed of at a licensed facility for disposal in accordance with local and national legislation. Preferred means of disposal is incineration (at >1100°C with minimum residence time of 3 seconds) with off-gas scrubbing where permitted.

Any packaging may be thoroughly cleaned of its contents and reused, recycled or land filled as appropriate in accordance with local and national legislation. Drums may be sent to drum recoverer or metal reclaimer.

Relevant legislation includes: (EU) The Waste Framework Directive (75/442/EEC), the Hazardous Waste Directive (91/689/EEC).

14. Transport information

Except where shown otherwise in this table, IATA, IMDG, ADR, RID and GB transport particulars are as for UN.

UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains fenarimol 12%)		
UN number:	3082	UN class:	9
UN packing group:	III	UN label:	No. 9
ADR classification code:	M6	ADR transport category:	3
ADR hazard identification number:	90	CDG-road emergency action code:	3Z
IMDG marine pollutant:	Yes, Type P		

15. Regulatory information

EU classification/labelling particulars:

Note: Individual EU Member States may require these particulars to be modified as the classification and labelling of pesticides has not yet been fully harmonised; check national approval conditions before use.

Designated name:	Rubigan 12% SC
Categories of danger:	Toxic for reproduction category 3.
Symbol-letter(s):	Xn.
Risk phrase(s)*:	R62, 63, 64, 52/53
Safety phrase(s)*:	S23, 36/37, 51, 60
Precautionary phrases †*	

*See Section 16 for risk and safety phrase text. †Required by Member State pesticide approval authority instead of standard EU safety phrases on consumer packages.

16. Other information

This safety data sheet has been prepared in accordance with: (EU) EC Directive 91/155/EEC.

Risk and safety phrases used in this safety data sheet (Sections 2, 3, 15): R22 = Harmful if swallowed. R62 = Possible risk of impaired fertility. R63 = Possible risk of harm to the unborn child. R64 = May cause harm to breastfed babies. R51/53 = Toxic to aquatic organisms; may cause long-term adverse effects to the aquatic environment. R52/53 = Harmful to aquatic organisms; may cause long-term adverse effects to the aquatic environment. S23 = Do not breathe spray. S51 = Use only in well-ventilated areas. S60 = This material and its container must be disposed of as hazardous waste.

Sources of information used include: Own data; ingredient suppliers' data; Annex I (list of substances with mandatory classification and labelling particulars) of The Dangerous Substances Directive 67/548/EEC as amended; transport rules.

Date and reference of first issue: G001-3/EU/E/Aug. 04

Date and reference of this version: G001-4/EU/E/Jan. 05

List of revisions in this version: Formatting only