



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Formulator: Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569
(928) 783-8844

Emergency Phone: (928) 783-3803
For 24-Hour Emergency Assistance (Spill, Leak, Fire, or Exposure), Call CHEMTREC®: **Inside the U.S.:** (800) 424-9300
Outside the U.S.: (703) 527-3887
(888) 478-0798
For Medical Emergency:

Product: Rubigan® A.S.
EPA Signal Word: CAUTION
Active Ingredient: Fenarimol (11.6%)
Chemical Name: *a*-(2-chlorophenyl)-*a*-(4-chlorophenyl)-5-pyridinemethanol
Chemical Class: Pyrimidine

EPA Registration No.: 10163-274
CAS No.: 060168-88-9

2. HAZARDS IDENTIFICATION

Physical Properties

Appearance: Light tan to cream colored liquid.
Odor: Mild odor

Symptoms of Acute Exposure

Eyes: May cause slight irritation

Primary Routes of Entry

May cause slight irritation to the eyes

Medical Conditions Likely to be Aggravated by Exposure

None known.

Hazardous Decomposition Products

Nitrogen oxides and other toxic vapors may be formed if product is involved in fire.

Unusual Fire, Explosion, and Reactivity Hazards

If product is involved in fire and water evaporates, toxic, irritating vapors may be produced.

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	OSHA – PEL	ACGIH – TLV	OTHER	NTP/IARC/OSHA CARCINOGEN
Fenarimol (11.6%)	Not Established	Not Established	N/A	No
Propylene Glycol (88.4%) CAS# 000057-55-6	100 ppm	100 ppm	N/A	No

Only the identities of the active ingredient(s) and any *hazardous* inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

4. FIRST AID MEASURES

- If in eyes**
- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
 - Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- If swallowed**
- Call a poison control center or doctor for treatment advice.
 - Have person sip a glass of water if able to swallow.
 - Do not induce vomiting unless told to do so by the poison control center or doctor.
- If inhaled**
- Do not give anything by mouth to an unconscious or convulsing person.
 - Move person to fresh air.
 - If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- If on skin or clothing**
- Call a poison control center or doctor for further treatment advice.
 - Take off contaminated clothing.
 - Rinse skin immediately with plenty of water for 15-20 minutes.
 - Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-888-478-0798 for emergency medical treatment information.

5. FIRE FIGHTING MEASURES

Flashpoint (test method): Not applicable
Flammable Limits (% in air): LFL/UFL: Water based product.
Auto-ignition Temperature: Water based product.
Flammability: Not flammable

Appropriate Extinguishing Media
Water, CO₂ or dry chemicals

Fire Fighting Guidance

Wear full protective clothing and positive-pressure, self-contained breathing apparatus.

Unusual Fire, Explosion, and Reactivity Hazards

If product is involved in fire and water evaporates, toxic, irritating vapors may be produced.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spills or Leaks

Use absorbent materials to contain and clean up small spills and dispose as waste. Prevent runoff.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep out of reach of children. Causes eye irritation. Harmful if swallowed, inhaled, or absorbed through the skin. Avoid breathing spray mist and contact with skin, eyes, or clothing. Do not contaminate water, food or feed by storage or disposal. Avoid freezing. Do not store near heat or open flame. Store in original container only. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Provide general and/or local exhaust ventilation.

Manufacturing and Packaging Employees

Eye/Face Use safety glasses.

Skin Protection For handling prior to end-use, no precautions other than clean, body-covering clothing should be needed

Respiratory Protection Atmospheric levels should be maintained below the exposure guidelines. If respiratory irritation is experienced, use a NIOSH approved air-purifying respirator.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION – Cont.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, polyvinyl chloride or Viton
- Shoes plus socks
- Protective eyewear

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light tan to cream colored liquid
Odor: Mild odor
Boiling Point: (@ 1 atmosphere) approximately 212°F, 100°C
Vapor Pressure: Approximately 0.00000022 mm Hg @ 25°
Vapor Density: 1.178 relative to air at 25°C
Specific Gravity: 1.033 to 1.055 g/ml at 20°C

Solubility in H₂O: Disperses in water
pH: (aqueous 50/50) 6.0 to 7.5

10. STABILITY AND REACTIVITY

Stability: Stable
Hazardous Polymerization: Not known to occur
Decomposition Products: Nitrogen oxides and other toxic vapors may be formed if product is involved in fire.
Conditions To Avoid: Avoid freezing

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

Ingestion: Acute oral LD₅₀ for rats >2000 mg/kg
Dermal: Acute LD₅₀ for rabbits >4000 mg/kg
Inhalation: Mists are not likely to be hazardous.
Eye Contact: Mild eye irritant
Skin Contact: Non-irritating to skin (rabbits)

Mutagenic Potential

In-vitro and animal mutagenicity studies were negative.

Reproductive Hazard Potential

In animal studies, has been shown to interfere with reproduction in female rats and fertility in male rats.

Chronic/Subchronic Toxicity Studies

Systemic effects: In animals, effects have been reported on the kidney and liver.

Teratology (Birth Defects): Birth defects are unlikely. In laboratory animals however, exposures having no adverse effects on the mother had other harmful effects on the fetus.

Carcinogenic Potential

Did not cause cancer in laboratory animals.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA:

This pesticide is toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor runoff or drift from the target area. Do not contaminate water when disposing of equipment washwaters.

13. DISPOSAL CONSIDERATION

Do not contaminate water, food or feed by storage or disposal.

Pesticide Disposal

For information concerning the proper disposal of pesticide-related waste, contact your State Environmental Department, State Department of Agriculture, or the Regional Office of the Environmental Protection Agency..

Container Disposal

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

DOT Classification

Not regulated

International Maritime Organization

Not regulated

International Civil Aviation Organization

Not regulated

15. REGULATORY INFORMATION

SARA Title III Classification

Section 302/304:	Not applicable
Section 311/312:	Immediate (acute) health hazard
Section 313 chemical(s):	Fenarimol (11.6%)

Proposition 65

Not applicable

CERCLA Reportable Quantity (RQ)

Not applicable

RCRA Classification

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA Status

Exempt

16. OTHER INFORMATION

NFPA Hazard Ratings

Health:	2
Flammability:	0
Reactivity:	0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

Prepared By:

Gowan Company
(928) 783-8844

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