



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569
(800) 883-1844

Emergency telephone number: (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

For medical emergency: (888) 478-0798

Product: Avadex® MicroActiv Herbicide
Signal Word: CAUTION **PCP Registration No.:** 25112
Active Ingredient: Triallate (10%) **CAS No.:** 2303-17-5
Chemical Name: S-(2,3,3-trichloro-2-propenyl) bis(1-methylethyl)carbamoithioate
Chemical Class: Thiocarbamate

2. HAZARDS IDENTIFICATION

Physical Properties

Appearance: Granular, free-flowing solid

Primary Routes of Exposure

Skin contact, eye contact and inhalation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

	Component	CAS No.	% by weight
Active Ingredient:	Triallate		(10%)
Other Ingredients:	Montmorillonite	1318-93-0	(<90%)
	Crystalline Quartz	14808-60-7	(<3%)

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	<ul style="list-style-type: none">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.Call a poison control centre or doctor for treatment advice.
Have the product container or label with you when calling a poison control centre or physician, or going for treatment.	

FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE: (888) 478-0798

5. FIRE FIGHTING MEASURES

Flashpoint (test method): Not applicable

Fire Fighting Procedures

Firefighters and other persons exposed to products of combustion should wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

Extinguishing Media

In case of fire, use water spray (fog), foam, dry chemical or carbon dioxide (CO₂).

Hazardous Products of Combustion

Carbon monoxide (CO), nitrogen oxides (NO_x), phosgene (COCl₂), carbonyl sulphide (COS), hydrogen chloride (HCl).

Unusual Fire, Explosion, and Reactivity Hazards

None Known.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spills or Leaks

Observe all protection and safety precautions when cleaning up spills. See EXPOSURE CONTROLS/PERSONAL PROTECTION (Section 8).

Keep out of drains, sewers, ditches, and waterways. DO NOT contaminate water when disposing of rinse waters.

For clean up, collect in containers for disposal and use vacuum equipment designed specifically for combustible dust. Wash spill area with detergent and water, minimizing use of water to prevent environmental contamination.

Refer to Section 13 for disposal of spilled material.

7. HANDLING AND STORAGE

Handling

Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Storage

Keep bag closed to prevent spills and contamination. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

Emptied container retains vapour and product residue. Observe all labelled safeguards until container is cleaned, reconditioned or destroyed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protection

Loaders, applicators and other handlers must wear: a long-sleeved shirt and long pants, shoes plus socks.

In addition, loaders must wear: a NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N, R, P or HE filter.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Granular, free-flowing solid
Flash Point:	None
Density:	0.608 g/cm ³
Solubility:	Insoluble in water
Partition Coefficient (log Pow):	4.6 (active ingredient)

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of warehouse storage.
Hazardous Polymerization: Will not occur.
Hazardous Decomposition: See Section 5 FIRE FIGHTING MEASURES.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Similar Formulation)

Oral LD₅₀ (rat): > 5000 mg/kg body weight
Dermal LD₅₀ (rabbit): >5000 mg/kg body weight
Eye Contact (rabbit, 24-hr): Slight irritation
Skin Contact (rabbit, 24-hr): Essentially no irritation

Carcinogenic Potential

This product contains ≤3% crystalline silica, which is considered a hazard by inhalation. IARC has concluded that crystalline silica inhaled in the form of quartz from occupational sources is carcinogenic for humans. Crystalline silica is listed by NTP as a known human carcinogen. Inhalation of crystalline silica is a known cause of silicosis, a non-cancerous lung disease.

12. ECOLOGICAL INFORMATION

Summary of Effects

Do not apply directly to water, or to areas where water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

Ecotoxicity data shown below is for similar formulation:

96-hr LC₅₀ Bluegill sunfish: 13 mg/L, slightly toxic
96-hr LC₅₀ Rainbow trout: 19 mg/L, slightly toxic

Ground Water Advisory

Triallate has a degradation product TCPSA (trichloropropene sulfonic acid) with properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Surface Water Advisory

Under some conditions, the Triallate degradate TCPSA may have a high potential for runoff into surface water (primarily via dissolution in runoff water). These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain surface water.

13. DISPOSAL CONSIDERATIONS

Pesticide Disposal

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable federal, provincial or municipal regulations.

Container Disposal

Completely empty bag into application equipment. Then dispose of the container and empty water soluble bags in accordance with applicable federal, provincial or municipal regulations. **DO NOT REUSE THE EMPTY BAGS.**

14. TRANSPORT INFORMATION

Not hazardous under the applicable DOT, ICAO/IATA, IMO, TDG and Mexican regulations.

15. REGULATORY INFORMATION

WHMIS Classification

This product is registered under the Pest Control Products Act and has been prepared in accordance with the WHMIS requirements.

IARC Classification

Category 1 Chemical: Quartz

16. OTHER INFORMATION

NFPA Hazard Ratings

Health:	1	0	Least
Flammability:	1	1	Slight
Reactivity:	1	2	Moderate
		3	High
		4	Severe

Prepared by:

Gowan Company
(800) 883-1844

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