

SAFETY DATA SHEET**TAILWIND**

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1. IDENTIFICATION

Product name: **TAILWIND**
 Chemical name of active ingredient(s): Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)acetamide
 Metribuzin: 4-Amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one
 Manufactured for: Makhteshim Agan of North America, Inc.
 3120 Highwoods Boulevard, Suite 100
 Raleigh, NC 27604
 Phone: 1-919-256-9300
 For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-800-535-5053
 For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

2. HAZARDS IDENTIFICATIONS**PHYSICAL PROPERTIES:****APPARANCE:** Amber liquid**ODOR:** Moderate

EMERGENCY OVERVIEW: WARNING. Causes skin irritation. Harmful if swallowed. Cause moderate eye irritation. Do not get on skin or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

HAZARDOUS DECOMPOSITION PRODUCTS: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

PHYSICAL OR CHEMICAL HAZARDS: Do not use or store near heat or open flame.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Metolachlor	51218-45-2	58.52	NA	NA	NA	NA
Metribuzin	21087-64-9	13.93	NA	NA	NA	NA
Heavy aromatic petroleum hydrocarbons:	64742-94-5		NA	NA	NA	NA
Contains Naphthalene (% of total)	91-20-3	< 5	10 ppm 50 mg/m ³ (TWA)	10 ppm (Skin, TWA) 15 ppm (Skin, STEL)	NA	NTP – 2* IARC – 2B**

NA=Not applicable

* Substances, which may reasonably be anticipated to be carcinogens.

** Substance is possibly carcinogenic to humans.

4. FIRST AID MEASURES

FIRST AID	
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 center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

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	<ul style="list-style-type: none">• Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
IF INHALED:	<ul style="list-style-type: none">• 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.• Call a poison control center or doctor for further treatment advice.
NOTE TO PHYSICIAN: May pose an aspiration pneumonia hazard. Contains petroleum distillate. Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact PROSAR at 1-887-250-9291 for emergency medical treatment information.	

5. FIRE FIGHTING MEASURES

FLASH POINT: >180°F (82.2°C)

FLAMMABLE LIMITS: Not applicable

AUTOIGNITION TEMPERATURE: Not available

EXTINGUISHING MEDIA: Foam, CO₂, dry chemical or water spray.

UNUSUAL FIRE EXPLOSION AND REACTIVITY HAZARDS: Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distance ignition sources and flash back.

HAZARDOUS DECOMPOSITION PRODUCTS: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

FIRE-FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes, or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Do not contaminate water, foodstuff, feed or seed by storage or disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING: Keep out of reach of children. Follow label directions carefully. Handle the material in a well-ventilated, secure area. Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store product in original container only.

STORAGE TEMPERATURE (MIN/MAX): Normal ambient temperatures.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION EQUIPMENT (PPE) ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

SKIN PROTECTION: Wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride [PVC] OR Viton), long-sleeved shirt and long pants. Coveralls, socks and chemical-resistant footwear.

EYE PROTECTION: Protective eyewear (e.g. chemical splash goggles or full-face shield).

RESPIRATOR REQUIREMENTS: Not normally required. Use effective engineering control comply with occupational exposure limits. When respiratory protection is required, use a NIOSH approved respiratory with any R, P, or HE filter.

ADDITIONAL PROTECTIVE MEASURES: Discarded clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Refer to product label.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber liquid

ODOR: Moderate

FLASH POINT: 180°F (82.2°C)

pH: 5 - 6

DENSITY: 1.075 g/cm³ @24°C (8.97 lbs/gal); 1.095 g/cm³@40°C (8.89 lbs/gal)

VISCOSITY (centipoises): 50.7@24°C; 23.2@40°C

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal use and storage conditions.

CONDITIONS TO AVOID: Excessive heat.

HAZARDOUS POLYMERIZATION: Not known to occur.

HAZARDOUS DECOMPOSITION PRODUCTS: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

- Acute Oral LD₅₀ (Rat): 1,098 mg/kg
- Acute Dermal LD₅₀ (Rat): >5,000 mg/kg
- Acute Inhalation LC₅₀ (Rat): >2.07 mg/L (4-hours)
- Eye Irritation (Rabbit): Moderately irritating
- Dermal Irritation (Rabbit): Severely irritating (II)
- Dermal Sensitization (Guinea Pig): Not a skin sensitizer

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MUTAGENICITY EFFECTS:

Metolachlor: None observed.
Metribuzin: No data available.

REPRODUCTIVE/DEVELOPMENT EFFECTS:

Metolachlor: Study evidence suggests that metolachlor is not likely to have an effect on reproduction in humans under normal circumstances.
Metribuzin: Developmental toxicity studies in rats showed both developmental and maternal effects. A reproductive toxicity feeding study in rats showed reduced offspring weights at the highest dose level.

CHRONIC/SUBCHRONIC TOXICITY STUDIES:

Metolachlor: None observed
Metribuzin : Dog and rat feeding studies showed decreases in body weight and food consumption, anemia, liver effects, kidney effects, testicular effects and mortality.
A dermal toxicity study in rabbits showed effects on cholesterol levels and liver function.
A rat inhalation study showed behavioral changes, decreased body weight gains, liver enzyme induction and organ weight effects.

CARCINOGENICITY

Metolachlor: Study evidence suggests that it seems unlikely that metolachlor is carcinogenic in humans.
Metribuzin: No evidence of a carcinogenic potential observed in animals tested.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: For terrestrial uses only. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate. Do not apply when weather conditions favor drift from target area.

ECO-ACUTE TOXICITY:

Metolachlor:

Rainbow Trout 96-hour LC50: 3 mg/L
Carp 96-hour LC50: 5 mg/L
Channel Catfish 96-hour LC50: 5 mg/L
Bluegill Sunfish 96-hour LC50: 15 mg/L
Daphnia magna 48-hour LC50: 25 mg/L
Mallard Duck LC50: >2,000 mg/kg
Bobwhite Quail LC50: >4,500 mg/kg

Metribuzin:

Fish (Rainbow Trout) 96-hour LC₅₀ : 42 ppm
Invertebrate (Water Flea) *Daphnia Magna* 48-hour EC₅₀: 4.18 ppm
Bird (Bobwhite quail) 21-day LD₅₀ : 164 mg/kg
Green Algae 6-day EC₅₀: 20.8 ppb

ENVIRONMENTAL FATE:

Metolachlor: Moderately persistent in soil and highly persistent in water. Relatively stable in water.

Metribuzin: Not persistent in soil. Stable in water. Moderate mobility in soil. Sinks in water (after 24 hrs).

13. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL: Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of Federal law. Pesticide, spray mixture or rinsate that cannot be used according to label instructions must be disposed of

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according to Federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

CONTAINER DISPOSAL: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Non-Bulk: Not Regulated

Bulk: NA 1993, Combustible liquid, N.O.S. (contains aromatic hydrocarbons), PGIII

NOTE: DOT Exception 49 CFR 173.150(f) applies.

INTERNATIONAL TRANSPORTATION:

IMO (vessel): UN 3082, Environmentally hazardous substance, Liquid, N.O.S., (Metolachlor), 9, PGIII, Marine pollutant

IATA (air): UN 3082, Environmentally hazardous substance, Liquid, N.O.S., (Metolachlor), 9, PGIII, Marine pollutant

15. REGULATORY INFORMATION

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate)

Chronic health hazard (delayed)

Section 313: Metribuzin (CAS # 21087-64-9) (13.93%)

Naphthalene (CAS# 91-20-3) (< 5%)

1,2,4-Trimethylbenzene (CAS # 95-63-6) (< 2%)

CERCLA RQ: Naphthalene (CAS# 91-20-3) RQ = 100 lbs.

CA PROPOSITION 65: 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: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

NFPA HAZARD RATINGS	NFPA	HMIS	
HEALTH:	2	2	0 MINIMAL
FLAMMABILITY:	2	2	1 SLIGHT
REACTIVITY:	0	0	2 MODERATE
			3 HIGH
			4 SEVERE

MSDS DATE: 1-7-13.

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