

**1. IDENTIFICATION**

Product name: **PARALLEL® PCS**  
 Chemical name of active ingredient(s): Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl) acetamide  
 Manufactured for: Makhteshim Agan of North America, Inc.  
 4515 Falls of Neuse Road, Suite 300  
 Raleigh, NC 27609  
 Phone: 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. COMPOSITION/INFORMATION ON INGREDIENTS**

COMMON NAME	CAS NO.	%	OSHA PEL	ACIGH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Metolachlor	51218-45-2	86.4	NA	NA	NA	NA
Inert ingredients including:						
Aromatic 100 containing:	64742-95-6	2.5				
1,2,4-Trimethylbenzene (32%)	95-63-6		NA	123 mg/m <sup>3</sup> 25 ppm	NA	NA
Xylene (3%)	1330-20-7		435 mg/m <sup>3</sup> 100 ppm	434 mg/m <sup>3</sup> 100 ppm	NA	IARC Group 3*
Benzene (2%)	98-82-8		245 mg/m <sup>3</sup> 50 ppm	246 mg/m <sup>3</sup> 50 ppm	NA	NA

**3. HAZARDS IDENTIFICATIONS****PHYSICAL PROPERTIES**

Appearance: Amber to brown liquid

Odor: Aromatic

**EMERGENCY OVERVIEW**

Hazards to humans and domestic animals. Harmful if swallowed, inhaled, or absorbed through skin. Causes eye and skin irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Irritating and toxic gases may be generated by thermal decomposition or combustion.

**SYMPTOMS OF ACUTE EXPOSURE:** Causes eye and skin irritation.

**MEDICAL CONDITIONS LIKELY TO BE AGGRAVATED BY EXPOSURE:** None known

**4. FIRST AID MEASURES**

FIRST AID	
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>

	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
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:** >200° F (TCC)

**FLAMMABLE LIMITS:** Not applicable

**AUTOIGNITION TEMPERATURE:** Not applicable

**EXTINGUISHING MEDIA:** Foam, CO<sub>2</sub>, dry chemical

**UNUSUAL FIRE, EXPLOSION, AND REACTIVITY HAZARDS:** None

**HAZARDOUS DECOMPOSITION PRODUCTS:** Irritating and 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 unauthorized entry to the fire area. 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:** For small spills, cover the spill with an absorbent material such as pet litter. Sweep up and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent materials, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies. Dispose of in accordance with local, state, and federal regulations.

## 7. HANDLING AND STORAGE

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

**PRECAUTIONS TO BE TAKEN IN HANDLING:** Keep out of reach of children. Follow label directions carefully. 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 the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. This product may be store at temperatures down to -30° F.

**STORAGE TEMPERATURE (MIN/MAX):** Store at temperatures above -30° F.

## 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.**

**EYE PROTECTION:** Chemical-resistant headgear for overhead exposure.

**SKIN PROTECTION:** Wear coveralls over short-sleeved shirt and short pants, chemical-resistant gloves, such as barrier laminate or viton, chemical-resistant footwear plus socks, and chemical-resistant apron when cleaning equipment, mixing or loading.

**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 to brown liquid

**ODOR:** Aromatic

**FLASH POINT:** >200° F

**pH:** 7.0-9.0 (1% in water)

**MELTING POINT:** Not applicable

**BOILING POINT:** 150° C @ 760 mmHg

**SPECIFIC GRAVITY/DENSITY:** 1.110 g/mL @ 20°C

**SOLUBILITY IN H<sub>2</sub>O:** Not applicable

**VAPOR PRESSURE:** 1.3 X 10<sup>-5</sup> mmHg @ 68° F (20°C)

**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable under normal use and storage conditions.

**CONDITIONS TO AVOID:** None known.

**HAZARDOUS POLYMERIZATION:** Not known to occur.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Irritating and toxic gases may be generated by thermal decomposition or combustion.

**11. TOXICOLOGICAL INFORMATION**

**ACUTE TOXICITY/IRRITATION STUDIES (METOLACHLOR)**

Acute Oral LD<sub>50</sub> (Rat): 1,200-2,780 mg/kg

Acute Dermal LD<sub>50</sub> (Rat): >2,000 mg/kg

Acute Inhalation LC<sub>50</sub> (Rat): >4.3 mg/L (4-hours)

Eye Irritation (Rabbit): Mildly irritating

Dermal Irritation (Rabbit): Slight to moderate skin irritation

Dermal Sensitization (Guinea Pig): Not a skin sensitizer

**REPRODUCTIVE/DEVELOPMENT EFFECTS**

Metolachlor: Study evidence suggests that metolachlor is not likely to have an effect on reproduction in humans under normal circumstances.

**CHRONIC/SUBCHRONIC TOXICITY STUDIES**

Metolachlor: None observed.

**CARCINOGENICITY**

Metolachlor: Study evidence suggests that it seems unlikely that metolachlor is carcinogenic in humans.

**12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL HAZARDS:** For terrestrial uses, 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.

MATERIAL SAFETY DATA SHEET

**PARALLEL<sup>®</sup> PCS**

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**SUMMARY OF EFFECTS** (Metolachlor): Moderately toxic to fish and invertebrates. Slightly to practically non-toxic to birds. Non-toxic to bees.

**ECO-ACUTE TOXICITY:**

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

**ECO-CHRONIC TOXICITY:**

Not available

**ENVIRONMENTAL FATE:**

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

**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 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:**

Not regulated

**INTERNATIONAL TRANSPORTATION**

**IMO (vessel):** Not regulated

**IATA (air):** Not regulated

**15. REGULATORY INFORMATION**

**SARA TITLE III CLASSIFICATION:**

Section 302: Not applicable.  
Section 311/312: Acute health hazard (immediate)  
Chronic health hazard (delayed)  
Section 313: 1,2,4-Trimethylbenzene CAS # 95-63-6 (0.008%)  
Xylene CAS # 1330-20-7 (0.00075%)  
Benzene CAS# 98-82-8 (0.00049%)

**CERCLA RQ:** Benzene (5,000 lbs.)  
Xylene (100 lbs.)

**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.

**CA PROPOSITION 65:** Not applicable

**16. OTHER INFORMATION**

**NFPA HAZARD RATINGS**      **NFPA**  
**HEALTH:**                      2                              0    MINIMAL

MATERIAL SAFETY DATA SHEET

**PARALLEL<sup>®</sup> PCS**

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<b>FLAMMABILITY:</b>	1	1 SLIGHT
<b>REACTIVITY:</b>	0	2 MODERATE
		3 HIGH
		4 SEVERE

**MSDS DATE:** 12-1-08. Supercedes version dated 8-10-04. Changes made to all sections.

The information herein is given in good faith, but no warrant, express or implied, is made. Consult Makhteshim Agan of North America, Inc. for further information.