

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

PROPANIL 350G/L + BUTACHLOR 350G/L EC

ACTIVE INGREDIENT: Propanil and Butachlor
CHEMICAL NAME: N-(3,4-dichlorophenyl)propanamide and
N-butoxymethyl-2-chloro-2',6'-diethylacetanilide
CAS NUMBER: 709-98-8 and 23184-66-9
MOLECULAR WEIGHT: $C_9H_9Cl_2NO$ and $C_{17}H_{26}ClNO_2$
MOLECULAR WEIGHT 218.08 and 311.9
USE: Herbicide

2. HAZARDS IDENTIFICATION

Harmful if swallowed, inhaled or absorbed through skin. Avoid breathing vapour, spray or mist. Avoid contact with skin, eyes or clothing.

Toxic to aquatic organisms.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Propanil 350g/L
Butachlor 350g/L
Other ingredients Up to 1L

4. FIRST - AID MEASURES

INHALATION: Remove from exposure area to fresh air immediately. Give artificial respiration preferably mouth-to-mouth if breathing has stopped. Get medical attention immediately.
SKIN CONTACT: Remove contaminated clothing and shoes immediately. Wash thoroughly with soap and water. Get medical attention.
EYE CONTACT: Rinse eyes immediately with an eye wash solution or clean running water for up to 15 minutes. Get medical attention immediately.
INGESTION: 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 the poison control center or doctor. Never give anything by mouth to an unconscious person. Get medical attention.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon dioxide, dry chemical.
SPECIAL PROTECTIVE EQUIPMENT: Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Dike area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated.
FURTHER INFORMATION: NA.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear PPE (Section 8). Keep unauthorized people away. Isolate the hazard area. Avoid contact with spilled product or contaminated surfaces.

METHODS FOR CLEANING UP: Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering

MATERIAL SAFETY DATA SHEET

sewage and drainage systems or any body of water. Clean up spills immediately. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent. Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all materials is cleaned up and placed in a disposal container, seal container and arrange for diposition.

7. HANDLING AND STORAGE

Handling

Keep out of reach of children. Avoid contact with eyes, skin and clothing and avoid inhalation of product or spray mist. After handling and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. Do not contaminate food or use on household tanks.

Storage

Store in the closed, original container in a dry, cool, well-ventilated area, secure area at minimum storage temperatures. Store in locked room or place away from children, animals, food, animal feed, seed and fertilizers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE PROTECTION:	Use safety glasses or goggles. There is potential for mist exposure to cause injury to eyes.
RESPIRATORY PROTECTION:	Wear a respirator if the airborne conditions result in a mist forming.
PROTECTIVE CLOTHING:	Wear chemically resistant gloves (e.g. nitrile, butyl, or neoprene.) Wear a long sleeved shirt, long pants, shoes, and socks.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid
COLOR	Brown
WATER SOLUBILITY:	Emulsifiable
DENSITY:	1.08g/cm ³

10. STABILITY AND REACTIVITY

STABILITY: Product is stable under normal conditions storage.

HAZARDOUS POLYMERIZATION: Will not occur.

MATERIALS TO AVOID: Avoid strong oxidizing agents and strong acids and bases. Incompatible with a number of pesticides, particularly carbonates and organophosphates. Incompatible with liquid fertilizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include carbon monoxide, carbon dioxide, oxides of nitrogen, chloride or hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Propanil Technical:

ACUTE ORAL LD ₅₀	2756mg/kg in the rat
ACUTE DERMAL LD ₅₀	>4000mg/kg in rat
INHALATION:	>6 mg/kg
SKIN IRRITATION	Not irritant
EYE IRRITATION	Moderate eye irritant
SENSITISATION	Not a skin sensitizer

Butachlor Technical:

ACUTE TOXICITY	
Acute oral LD50 for rat:	3050mg/kg
Acute dermal LD50 for rabbit:	13000mg/kg
Contact with the skin:	moderate irritation to skin of rabbit;

MATERIAL SAFETY DATA SHEET

Contact with the eyes: slight irritation to eyes of rabbit
Inhalation for rat: >5.3mg/l
Sensitization: a dermal sensitizer in the guinea-pig

12. ECOLOGICAL INFORMATION

Propanil Technical

Effects on birds:

Moderately toxic to birds. The oral LD50 for propanil in bobwhite quail is 196 mg/kg, and in mallard ducks is 275 mg/kg. The 8-day dietary LC50 for propanil in bobwhite quail is 2861 ppm, and in mallardducks is 5627 ppm.

Effects on aquatic organisms:

May be moderately to highly toxic to a wide range of aquatic species. The 96-hour LC50 for propanil is 5.4 mg/L in bluegill sunfish, 2.3 mg/L in rainbow trout, and 4.6 mg/L in sheepshead minnows. The 48-hour LC50 for propanil in *Daphnia magna*, a small freshwater crustacean, is 0.14 mg/L, and for mysid shrimp is 0.4 mg/L. The 96-hour LC₅₀ of propanil is 5.8 mg/L in the Eastern oyster. The compound concentrated to levels up to 111 times the background water concentration in fathead minnows. The level of pesticide in the minnows returned to normal within 10 days after the fish were placed in a propanil-free environment. This indicates that the compound is not likely to concentrate appreciably in aquatic organisms.

Effects on other organisms:

Nontoxic to honeybees, with a reported contact LC₅₀ of 240 µg/bee.

Butachlor Technical

FISH:

LC50 Bluegill sunfish 0.44 mg/L/96 hr /Technical butachlor

LC50 Rainbow trout 0.52 mg/L/96 hr /Technical butachlor

LC50 Crayfish 26.0 mg/L/96 hr /Technical butachlor

BIRD:

LD50 Bobwhite quail oral >10,000 mg/kg,

LD50 Mallard ducks oral > 10,000 mg/kg

BEE: LD50 (contact) >100µg/bee

13. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL: This should be done in accordance with applicable regulations.

CONTAINER DISPOSAL: Do not re-use container. Break and bury in non-crop areas away from water sources.

14. TRANSPORT INFORMATION

US EPA Classification: III

Packaging Group: III

15. REGULATORY INFORMATION

No available data.

16. OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.