

MATERIAL SAFETY DATA SHEET

PRODUCT : Butachlor 50% EC

PRODUCT DESIGNATION : Herbicide

Section 1. Product & Company Identification

Common Name : Butachlor
Grade : Formulation
Active Ingredient : Butachlor
Chemical Name of Active Ingredient (IUPAC) : N-butoxymethyl-2-chloro-2',6'-diethylacetanilide
Chemical Family of A. I. : Chloroacetamide
Molecular Formula of A. I. : C₁₇H₂₆ClNO₂
Molecular Mass of A. I. : 311.9 g/mol
Manufacturer & Supplier : **M/s United Chemicals**
Head office: B-371, 1st Floor, Meera Bagh, New Delhi,
Factory: 15/1, 15/2, 15/3, Industrial Estate, Vidisha,
(M.P)
Telephone Number : +91-11-25258770

Section 2. Composition / Information on Ingredients

Name of Components	Concentration% w/w
Butachlor a.i	50.00% w/w
Inert ingredient	50.00% w/w
TOTAL	100.00% w/w

Section 3. Hazards Identification

More important danger for the man: none

Dangers for the environment: toxic to aquatic; low accumulation;

Physical-chemical dangers: can decompose at high temperatures forming toxic gases.

Section 4. First Aid Measures

If in Eyes : Flush immediately with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

If in Skin : Wash thoroughly with soap and water. Remove contaminated clothing and shoes and launder.

If Inhaled : Remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If Swallowed : Offer a glass of water or milk to drink. Call a physician or poison control center. Do not induce vomiting unless directed.

Antidote: There is no specific antidote. Treat symptomatically.

Section 5. Fire Fighting Measures

Extinguishing Media: Water spray, foam, dry chemical carbon dioxide or Class B extinguish agent.

Special Fire Fighting: Firefighter or other exposed to vapors or products of combustion should wear full protective clothing and self-contained breathing apparatus.

Fire-fighting equipment should be thoroughly cleaned after use.

Unusual Fire & Explosion Hazards: Do not cut, drill, grind or weld on or near this container.

Section 6. Accidental Release Measures

Steps to be taken in case material is released or spilled:

Evacuate area. Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Soak up material with absorbent material and dispose of in accordance with local regulations. Ventilate area and wash spill site after material pickup is complete.

Disposal Method:

Cautiously dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Section 7. Handling & Storage

Handling: Keep out of reach of children. Avoid contact with the eyes, skin and clothing and avoid inhalation of product or spray mist. If in eyes, wash it immediately with water. 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.

Section 8. Exposure Control, Personal Protection

Respiratory Protection :

Use MSHA/NIOSH approved respirator for herbicides.

Protective Clothing :

Skin contact should be prevented through the use of impervious gloves, footwear, long-sleeved clothing, wide brimmed hat and head covering. Remove contaminated work clothing and launder after each shift. Workers should shower at the end of each shift. Work clothing should be laundered separate from other garments.

Eye Protection

Eye contact with the material should be avoided through the use of chemical safety glasses, goggles or a face shield, selected in regard to exposure potential.

Other Protection :

An adequate supply of clean potable water should be available to allow thorough flushing of skin and eyes in event of contact with these compounds.

Section 9. Physical and Chemical Properties

Appearance / state	: Brown or yellowish transparent oily liquid
Colour	: Brown or yellowish
Odour	: aromatic odor
Melting point	: -2.8 to 1.7 °C
Vapour pressure	: 2.4×10 ⁻¹ mPa (25)
Boiling Point	: 156 /0.5 mmHg

Density : 1.00-1.01
Solubility in water : 20 mg/l (20)

Section 10. Stability & Reactivity

Stability : Stable up to 165 . °C

Hazardous polymerization : Will not occur

Decomposition product : When heated to decompose, emits

Unusual Fire & Explosion Hazards : When heated to decompose, they emit highly toxic fumes. **Incompatibility** : Hydrolyzed by strong alkalis and strong mineral acids.

Extinguishing media : Use waterfog, foam, alcohol foam, carbon dioxide and dry chemical.

Section 11. Toxicological Information

Acute Oral Toxicity : LD₅₀ for rats : >5000 mg/kg

Acute Dermal Toxicity : LD₅₀ for rats : >2,000 mg /kg

Acute Inhalation : LC₅₀ (4h) for male and female rats : >1.5 mg/l

Eye Irritation : Non Irritating to Eyes

Skin Irritant : Non-irritating

Skin sensitization : Non sensitizer

Section 12. Ecological Information

Birds Acute oral LD₅₀ for Mallard Ducks >4640 mg/kg

Fish LC₅₀ (96h) for Rainbow trout 0.52 mg/l , bluegill fish 0.44 mg/l

Daphnia LC₅₀ (48 h) 2.4 mg/l

Bees LC₅₀ (48h, Contact) >100 µg/bee

Section 13. Disposal Consideration

Product: do not reuse product containers.

Dispose of product containers, waste containers, and residues according to local, state and environmental regulations

Section 14. Transport Information

IMDG Classification

Shipping name : Environmentally Hazardous Substance, Liquid, N.O.S.
Class : 9
Packing group : III
UN number : 3082
Marine pollutant : Yes

Section 15. Regulatory Information

Risk phrase:

R10 Flammable.

Safety phrase:

S2 Keep out of the reach of children.

S20 When using, do not eat or drink

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Section 16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

Safety Division : UNITED CHEMICALS, SAFETY DIVISION