



MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

ZHEJIANG RAYFULL CHEMICALS CO.,LTD

ADD: NO.52 PUCHANG ROAD, PUZHOU INDUSTRIAL PARK, LONGWAN DISTRICT,
WENZHOU ZHEJIANG P.R. CHINA

Tel: +86-577-88905587

Fax: +86-577-88905567

Email: info@rayfull.com

sales@rayfull.com

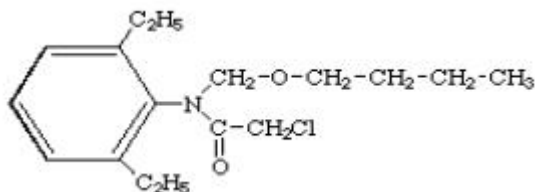
1. Chemical Product Identification

Product Name: Butachlor 60% EC

Molecular Formula: C₁₇H₂₆ClNO₂

Molecular Weight: 311.5

Structural Formula:



Chemical Name: N-butoxymethyl-2-chloro-2', 6'-diethylacetanilide

Form: Liquid

Colour: Light yellow to brown

CAS No.: 23184-66-9

2. Composition / Information On Ingredients

Composition	CAS No.	Content
Butachlor	23184-66-9	60%
Other ingredients	--	40%

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.

4. First Aid Measures

Skin: remove contaminated clothing and shoes, flush with plenty of water and soap.

Eyes: flush with plenty of clear water for 15-20 minutes.

Inhalation: move affect person to fresh air and keep at rest until recovered. If not breathing, give artificial respiration and get to a doctor.

Ingestion: do not induce vomiting; drink plenty of water. Then see doctor immediately.

5. Fire-Fighting Measures

Extinguishing media;

Fire extinguishing media: Water spray, foam, carbon dioxide, dry extinguishing media.

Special fire fighting procedures: Fire fighters should use self contained breathing apparatus and full turnout gear. Prevent runoff of fire water. Avoid exposure to smoke.

Unusual fire and explosion hazards: Noxious fumes may be emitted under fire conditions.

6. Accidental Release Measures

Personal cautions: The product is harmful if inhaled or swallowed. Will irritate the eyes, nose, throat and skin. Avoid inhaling spray mist. Keep people and animals away and upwind.

Cleaning methods

EX: clear the liquid formation. Transfer to a properly labelled deposit that will be closed and sealed until the recovery of climination of the product.

Environmental cautions

EX: prevent the contamination of the floor and of beds of water.

7. Handling And Storage

Handling

Precautions to avoid fire and explosion:

- avoid accumulation of electrostatic charges
- keep away from flames and sparks. Do not smoke.

Handle under adequate ventilation.

Storage

In original packaging under normal storage condition. Packages should not be exposed to



direct sunlight and must be kept unopened and undamaged.

Store in a cool, dry place.

8. Exposure Controls/personal protection

Personal protective equipment

Hand protection: Chemical-resistant gloves

Eye protection: Chemical tight goggles, full faceshield in addition if splashing is possible.

Body protection: Protective suit

General safety and hygiene measures: Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking or snuff taking at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical And Chemical Properties

Appearance: Light yellow to brown liquid

Water content: $\leq 0.2\%$

pH: 5.0~8.0

Density: 1.030 g/ml

Emulsion stability: Qualified

Low temperature stability: Qualified

Accelerated storage stability: Qualified

10. Stability And Reactivity

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid: Non know.

Incompatibility with other materials: Non know.

Hazardous decomposition products: Can decompose at high temperatures forming toxic gases.

Hazardous polymerization: Will not occur.

11. Toxicological Information

Acute oral LD50 for rat: 2000 a.i.mg/kg.

Acute dermal LD50 for rat: >13000 a.i.mg/kg.

Inhalation LC50 (4 h) for rat: 3.34 a.i. mg/L.



Skin irritation: Moderate irritant to skin (rabbits).

Eye irritation: Non-irritating to eyes (rabbits).

Skin Sensitization: Non-sensitive (Guinea Pig).

12. Ecological And Ecotoxicological Information

Effect on birds: low toxicity to birds, acute oral LD50 for Mallard ducks is >4640 a.i.mg/kg.

Effect on fish: moderate toxicity to fish, acute 96 hour LC50 for Bluegill sunfish is >0.44 a.i.mg/L.

Effect on aquatic invertebrates: moderate toxicity to aquatic invertebrates, acute 48 hour EC50 for Daphnia magna is >2.4 a.i.mg/L.

Effect on algae: moderate toxicity to algae, acute 72 hour EC50 for Scenedemus subspicatus is >0.2 a.i.mg/L.

Effect on honeybees: low toxicity to honeybees, contact acute 48 hour LD50 is >100 a.i.µg/bee; oral acute 48 hour LD50 is >100 a.i.mg/bee.

Effect on earthworms: high toxicity to earthworms, acute 14 day LC50 for Eisenia foetida is 0.515 a.i.mg/kg.

13. Disposal Considerations

Must be dumped or incinerated in accordance with local regulations.

Contaminated packaging:

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

Contaminated packaging should be emptied as far as possible and disposed of in accordance with official regulations after being thoroughly cleaned.

Uncontaminated packaging may be treated as household waste.

14. Transport Information

Not applicable

15. Regulatory Information

Not applicable

16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are



ZHEJIANG RAYFULL CHEMICALS CO., LTD

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EMAIL: info@rayfull.com sales@rayfull.com

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 on 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 produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.