Shown below is a synthesis of a pheromone. Provide a mechanism for every crucial step. Rationalize selectivity of these reactions.

```
O-B-O

1. LiCHCl₂
2. ZnCl₂
3. MeMgBr
X

1. LiCHCl₂
2. ZnCl₂
3. EtMgBr
4. H₂O₂ / NaOH
X → Y
```