



MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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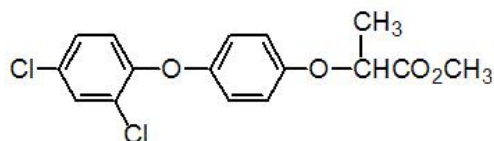
1. Chemical Product Identification

Common Name: Diclofop-methyl 97% TC

Molecular Formula: C₁₆H₁₄Cl₂O₄

Molecular Weight: 341.19

Structural Formula:



Chemical Name: methyl (RS)-2-(4-(2,4-dichlorophenoxy)phenoxy)propionate

Form: Liquid

Color: Dark brown

Odor: Aromatic hydrocarbon odour

CAS No.: 51338-27-3

2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Diclofop-methyl	51338-27-3	97
Other ingredients	---	3

3. Hazards Identification

Hazard classification: Hazardous according to the criteria of NOHSC. Non-dangerous goods.

Risk phrases:

R20 Harmful by inhalation.



R22 Harmful if swallowed.

R36 Irritating to eyes.

R65 Harmful – may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

Safety phrases:

S20/21 When using do not eat or drink/smoke

S23 Do not breathe vapour/spray.

S24/25 Avoid contact with skin/eyes

S29/35 Do not empty into drains/Dispose of material and container in a safe way.

4. First Aid Measures

Eye: Contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice.

Inhalation: Move person to fresh air. If person is not breathing, call an ambulance, then give artificial respiration. Call a poison control center or doctor for further treatment advice.

Ingestion: Call a physician or Poison Control Center immediately Have person sip a glass of water if able to swallow Do not induce vomiting unless told to do so by a poison control center or doctor Never give anything by mouth to an unconscious person

5. Fire-Fighting Measures

Suitable extinguishing media: Carbon dioxide, dry chemical, foam, water fog.

Unsuitable extinguishing media: Water stream.

Special hazards in fire: Product is flammable. Combustion may release carbon dioxide, nitrogen oxides, and/or chlorine compounds.

Required special protective equipment for fire-fighters: Wear self contained breathing apparatus if in enclosed space.

Hazchem code: Not applicable.

6. Accidental Release Measures

Emergency procedures: Wear protective equipment to prevent skin and eyes being affected.



Evacuate unprotected and unnecessary personnel from area of spill. If material is leaking from a container, stop the leak only if this can be done safely. Prevent spillage entering drains or watercourse.

Methods for containment & cleanup: Vermiculite, Sand, Soil is a suitable absorbent, especially soils high in clay. Soil can be used to form bunds to contain spillage. Contaminated soil should be collected for disposal at a suitable landfill. Contaminated area and tools should be washed down with hypochlorite bleach. Personal protective equipment and clothing should be washed with soapy water.

7. Handling And Storage

Handling: Keep away from food, drink, and animal feedstuff. KEEP OUT OF REACH OF CHILDREN. Wear suitable Personal protective equipment when handling and spraying.

Storage: Store in the original container in a dry, cool, ventilated, LOCKED area. DO NOT store in prolonged sunlight. DO NOT store with food, seed, or animal feedstuff.

8. Exposure Controls/Personal Protection

Engineering Controls: Control process conditions to avoid contact. Use only in well-ventilated areas.

Personal Protection:

Eyes: Wear face shield or goggles.

Clothing: Wear cotton overalls buttoned to neck and wrist, and a washable hat.

Gloves: Wear elbow-length PVC gloves.

Respiratory: Do not breathe vapour. Use an organic chemical cartridge respirator when working in poorly ventilated areas.

Other: After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

9. Physical and Chemical Properties

Appearance: Dark brown liquid

Water content: $\leq 0.5\%$

Acidity(as H₂SO₄): $\leq 0.3\%$

Insoluble in acetone: $\leq 0.3\%$



Melting point: 44°C

Boiling point: 370°C

Bulk density: 1.4 g/ml

Partition Coefficient: log P = 4.8 (at pH 7, 20°C)

Vapour pressure: 2.5×10^{-2} mPa (25°C)

Solubility: 0.39 mg/l in water (20°C); In organic solvents: 500 g/l in acetone, 500 g/l in dichloromethane, 500 g/l in toluene, 49.7 g/l in n-hexane (all at 20°C).

10. Stability and Reactivity

Chemical stability: Normally stable. Active may degrade in strong UV light.

Conditions to avoid: Very high or low temperatures.

Materials to avoid: Strong oxidising agents.

Hazardous decomposition products: Oxides of nitrogen and chlorine. Burning with limited oxygen may produce carbon monoxide.

Hazardous reactions: Not known. Does not polymerise.

11. Toxicological Information

Acute oral LD50 for rat: >512 a.i.mg/kg

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

Inhalation LC50 (4 h) for rat: >1.36 a.i. mg/L

Skin irritation: Non-irritant to skin (rabbits)

Eye irritation: Non-irritant to eyes (rabbits)

Skin sensitization: Not a skin sensitizer (guinea pigs).

12. Ecological And Ecotoxicological Information

Effect on birds: low toxicity to birds, acute oral LD50 for Japanese quail is >2250 a.i.mg/kg.

Effect on fish: moderate toxicity to fish, acute 96 hour LC50 for Rainbow trout is 0.31 a.i.mg/L.

Effect on aquatic invertebrates: moderate toxicity to aquatic invertebrates, acute 48 hour EC50 for Daphnia magna is 0.23 a.i.mg/L.

Effect on algae: moderate toxicity to algae, acute 72 hour EC50 for Anabaena flos-aqua is 2.23 a.i.mg/L.

Effect on honeybees: low toxicity to honeybees, contact acute 48 hour LD50 is >100



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a.i.µg/bee; oral acute 48 hour LD50 is >131 a.i.µg/bee.

Effect on earthworms: moderate toxicity to earthworms, acute 14 day LC50 for Eisenia foetida is >500 a.i.mg/kg.

13. Disposal Considerations

Product: Whenever possible, product should be used for its intended purpose, even if reclaimed from spillage (reclaimed product must be uncontaminated).

Containers: Whenever possible, follow directions given on container. If not available, triple or pressure rinse plastic or metal containers before disposal. Recycle containers if possible (replace cap and return clean containers to recycler or designated collection point). Treat rinsings as for product above. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways desirable vegetation and tree roots. Empty containers and product should not be burnt.

Sewage: Do not dispose of product or rinsings into sewage systems or septic tanks.

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 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.