



龍燈農業化工股份有限公司
ROTAM AGROCHEMICAL CO., LTD.

7/F. Cheung Tat Centre,
No.18, Cheung Lee Street,
ChaiWan, Hong Kong.

Tel.: 2896 5608, 2896 0662
Fax.: 2558 6577, 2896 5730
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MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Rotam Agrochemical Co. Ltd

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Tel.: 2896 5608, 2896 0662

Fax.: 2558 6577, 2896 5730

Emergency Telephone Numbers: (852) 28965608 Hong Kong

Product Name: Rotam Rodazim[®] 500g/l Suspension Concentrates

Product Code: RTFF-002002

Chemical Name of Active Ingredient (IUPAC):

Methyl benzimidazol-2-ylcarbamate

Chemical Formula of Active Ingredient:

C₉H₉N₃O₂

CAS/EPA/EU Registry Number of Active Ingredient:

10605-21-7 (CAS); 234-232-0 (EEC); 263 (CIPAC)

Section 2. Composition/Information on Ingredients

Component	CAS Number	Content (g/l)
Carbendzim	10605-21-7	Min. 500
Inerts	Not Available	Balance to 1 liter

Section 3. Hazards Identification

CAUTION! Avoid contact with the skin, eyes and clothing. The substance is toxic to aquatic organisms. Avoid release to the environment in circumstances different to normal use.

Section 4. First Aid Measures

Eye Contact: Flush with running water for at least 15 minutes while holding eyelids open to help flush out material. Get medical attention.

Skin Contact: Remove contaminated clothing and shoes immediately. Wash thoroughly with soap and water. Get medical attention.

Inhalation: Wearing proper respiratory protection before rescues. Immediately remove the affected victim from exposure to an area of fresh air. If not breathing, give artificial respiration; if breathe difficult, give oxygen. Get medical attention.

Ingestion: Immediately give 2 glasses of water and induce vomiting by touching back of throat with finger. Never give anything by mouth to an unconscious person. Get medical attention.



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Section 5. Fire Fighting Measures

Fire and Explosive Hazard: Negligible fire and explosion hazard. No flammable.
Firefighting Media: Foam; dry chemical or CO₂ to extinguish fire
Firefighting Precaution: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Keep unnecessary people away. Use as little water as possible. Dike area of fire to prevent material run-off. Decontaminate emergency personnel with soap and water before leaving the fire area. Avoid breathing dusts, vapors and fumes from burning materials. Control run-off water.

Section 6. Accidental Release Measures

In case materials are released, contact emergency response personnel. Keep unnecessary persons away. If emergency response personnel are unavailable, absorb small spills on spill pillows or other suitable absorbing material (e.g. sand, soil or diatomaceous earth) and place in a sealed container for disposal. Dike large spills and transfer to an appropriate container for disposal. Avoid contact of spilled materials and runoff with soil and surface waterways. Use suitable protective equipment (Section 8). Follow all fire prevention procedures (Section 5).

Section 7. Handling and Storage

Handling Precautions: Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mist. Clean applicator and measuring equipment before using with other products and dispose of wash water where it will not contaminate crops, grazing, rivers and dams. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash thoroughly after handling.

Storage Precautions: Store in the original container and keep closed. Store in cool, dry and well-ventilated place. Keep out of reach of children. Keep away from food, drink and animal feeding stuffs.

Section 8. Exposure Controls/Personal Protection

Engineering Controls: Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system.

Eye/Face: To protect against accidental eye contact, goggles/face-shield should be worn.

Skin Protection: Rubber gloves should be worn. Wash thoroughly with soap and water after handling.



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Respiratory Protection: Ensure good ventilation. For maximum protection, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus.

Section 9. Physical and Chemical Properties

Appearance	Off-white viscous liquid
Odor	Odorless
Specific Gravity	1.18 g/ml at 20°C
Water Solubility	Disperse in water

Section 10. Stability and Reactivity

Stability: Stable under normal conditions.

Incompatibilities: Avoid mixing with nitric acid, sulfuric acid, strong oxidizing agent and reducing agent.

Hazard Decomposition: Thermal decomposition products contain oxides of carbon, oxides of nitrogen.

Hazard Polymerization: Will not occur.

Section 11. Toxicological Information

Acute Oral Toxicity: LD₅₀ for rats >15000, dogs >2500 mg/kg

Acute Dermal Toxicity: LD₅₀ for rats >2000, rabbits >10000 mg/kg

Acute Inhalation Toxicity: LC₅₀ (4 h) for rats, rabbits, guinea pigs or cats, no effect with suspension (10 g/l) water.

Skin Irritation: No irritating

Eye Irritation: No irritating

Section 12. Ecological Information

Rodazim[®] is toxic to aquatic organisms. Avoid release to the environment in circumstances different to normal use. Referenced technical active ingredient ecological information list as below:

Birds LD₅₀ for quail 5826-15595 mg/kg.

Fish LC₅₀ (96 h) for carp 0.61, rainbow trout 0.83, bluegill sunfish >17.25, guppy >8 mg/l.

Bee LD₅₀ (contact) >50 µg/bee

Environmental Fate:

Animals In male rats, following a single oral administration of 3 mg/kg, 66% was eliminated in the urine within 6 hours.

Plants Readily absorbed by plants. One degradation product is 2-aminobenzimidazole.

Soil/Environment

2-Aminobenzimidazole has been found as a minor metabolite. DT₅₀ in



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soil 8-32 d under outdoor conditions. Carbendazim decomposes in the environment, DT₅₀ 6-12 mo on bare soil, 3-6 mo on turf, and 2-25 mo in water under aerobic and anaerobic conditions, respectively. It is mainly decomposed by micro-organisms. K_{oc} 200-250.

Section 13. Disposal Considerations

Disposal of product would be treated, stored, transported, and disposed of according to the local waste regulation authority. Do not flush to surface water or sanitary sewer system.

Section 14. Transport Information

IMO Classification:

Proper Shipping Name: Environmentally Hazardous Substances, Liquid, N.O.S.
Carbendazim (Rodazim®) 500g/l Suspension Concentrates

Class: 9
UN No.: 3082
IMDG Code: 9028
Packaging Group III
Marine Pollutant

Section 15. Regulator Information

European/International Regulation:

Hazard Symbols:

N Dangerous to environment

Risk Phrases:

R 40 Possible risks of irreversible effects

R 51 Toxic to aquatic organisms

Safety Phrases:

S 2 Keep out of reach of children

S 13 Keep away from food, drink and animal feeding stuffs

S 24/25 Avoid contact with skin and eyes.

S 36/37 Wear suitable protective clothing and gloves.

S 60 This material and its container must be disposed of as hazardous waste

S 61 Avoid release to the environment. Refer to special instructions/
Safety data sheets.

Section 16. Other Information

Disclaimer: The information provided by Rotam Agrochemical Co., Ltd contained herein is given in good faith and to the best of our knowledge.



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