

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

- * PRODUCT NAME: MONUMENT 400 EC
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2. COMPOSITION/INFORMATION ON ACTIVE INGREDIENT

- * PRODUCT DESCRIPTION: Fungicide
- * C.A. NAME: 4-cyclododecyl-2,6-dimethylmorpholinium acetate
- * CAS RN: [31717-87-0]

Components	Contents (%)	Function
Dodemorph acetate technical (96% min.)	41.5 min.	Active ingredient
Sodium dodecylbenzenesulfonate		
Pentaerythryl tetrastearate	15.0 max.	Emulsifier
Monostearin		
BHT	5.0 max.	Stabilizer agent
SOLVESSO 150	Up to 100	Solvent

3. HAZARDS IDENTIFICATION

TOXICITY CLASS: U
SIGNAL WORD: CAUTION

4. FIRST-AID MEASURES

Avoid contact with the skin, eyes and clothing. Take off immediately all contaminated clothing. If difficulties occur: Obtain medical attention. Show container, label and/or safety data sheet to physician.

If inhaled: Keep patient calm, remove to fresh air. Assist in breathing if necessary. Consult a physician.

If on skin: Wash affected areas thoroughly with soap and water. Remove contaminated clothing. If irritation develops, seek medical attention.

If in eyes: Hold eyelids open to facilitate rinsing. Flush with copious amounts of water for at least 15 minutes. If symptoms persist, seek medical advice.

If swallowed: Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Note to physician Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. FIRE-FIGHTING PROTECTIVE EQUIPMENT

Suitable extinguishing media:

Foam, dry extinguishing media, carbon dioxide, water spray

Hazards during fire-fighting:

Carbon monoxide, nitrogen oxides

The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Remove contaminated clothes, undergarments and shoes immediately.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Cleanup:

Cleaning operations should be carried out only while wearing breathing apparatus. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed.

Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

For large amounts: Dike spillage. Pump off product.

7. HANDLING AND STORAGE

Handling

General advice:

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Substance/product is flammable. Vapours may form explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

General advice:

Keep away from heat. Protect from direct sunlight. Protect against moisture. Store protected against freezing.

Storage incompatibility:

General: Segregate from foods and animal feeds. Segregate from acids.

Storage stability:

Storage duration: 48 Months

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:

Wear the following respiratory protection if exposure limits may be exceeded: Wear a NIOSH-certified (or equivalent) respirator as necessary.

Hand protection:

Chemical resistant protective gloves, Suitable materials, rubber, plastic

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is recommended. Wash soiled clothing immediately.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Light yellow liquid

Density: 0.95 g/cm³

FLAMMABILITY: Not flammable

STABILITY: Stable under normal condition

Solubility in water: Miscible in water

10. STABILITY AND REACTIVITY

Substances to avoid:

Acids

Hazardous reactions:

No hazardous reactions if stored and handled as prescribed/indicated.

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

11. TOXICOLOGICAL INFORMATION

ORAL: Acute oral LD₅₀ for rats >2000 mg/kg.

SKIN AND EYE CONTACT: Acute percutaneous LD₅₀ for rabbits >2000 mg/kg. Slight irritating to skin (rabbits). Non-sensitising to skin (guinea pigs). Slight-moderate irritating to eyes (rabbits).

INHALATION: LD₅₀ (4 h) for rats >5140 mg/m³ air

12. ECOLOGICAL INFORMATION (active ingredient)

BREAKDOWN IN SOIL AND GROUNDWATER: Dodemorph acetate is practically immobile in soil, strong adsorption to soil particles, low potential to leach below top soil layer. Soil dissipation rate is slow and dependent on application rate, DT₅₀ 44.3 days in sandy loam soil. Stable in water,

Aqueous photolysis DT₅₀ of days on 25°C, pH 7.

TOXICITY FOR FISH, BIRDS, BEES, DAPHNIA

Birds: LD₅₀ for mallard ducks >4000 mg/kg; for Japanese quail >1250 mg/kg.

Fish: LC₅₀ (96h) for Zebra Fish 2.23 mg/l; for rainbow trout 3.07 mg/l.

Bees: Non-toxic to honeybees; LD₅₀ (oral) >100 µg/bee.

Earthworm: LC₅₀ > 1000 mg/kg (dry weight of artificial soil)

13. DISPOSAL CONSIDERATIONS

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site.

Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

14. TRANSPORT INFORMATION

UN Number: 2588

Packing group: III

Toxic group: WHO Classification U

Take with care. Keep locked up. Keep away from fire. Do not contaminate water, food, or feeds by stage or disposal.

15. REGULATORY INFORMATION

Dodemorph acetate 40% EC is a slightly hazardous compound in WHO U. Products containing Dodemorph acetate 40% EC must bear the Signal Word CAUTION on the label because some formulated products may have higher toxicities. It is a General Use Pesticide (GUP).

GENERAL COMMENTS: Read label. Contact your State Pesticide or Environment Control Agency, of the Hazardous Waste representative at the nearest EPA Regional Office on guidance for disposal. Do not contaminate water, food or feed by disposal. Open dumping is prohibited. Dispose of container in an approved waste facility.

* Symbol(s):

Xi irritant

N Dangerous for the environment

* R-phrases(s):

R36/37/38 Irritating to eyes, respiratory system and skin

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

* S-phrases(s):

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

61 Avoid release to the environment. Refer to special instructions safety data sheet

16. OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the product in terms of its safety requirements. The data does not signify and

warranty with regard to the product's properties.