

ENVIRONMENTAL MONITORING EQUIPMENT

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240v/110v ACETONE VAPORISER

OPERATING INSTRUCTIONS



EC Declaration of Conformity We declare under our sole responsibility that the Acetone Vaporiser referred to above conforms to the following standards.

EN 55081-1: 1992 EN 50082-1: 1992 EN 61010-1: 1993

Ref MDHS 39/4 page 5 Acetone - Triacetin: the hot block method

If using the Acetone Vaporiser for the first time, practise by using unused or discarded filters to gain proficiency.

Sequence of Operations

- 1) Plug into mains power. The unit operates on 240v or 110v ac, depending which you have ordered.
- 2) The amber neon light illuminates indicating power is on.
- 3) After approx 1 minute the green neon light will illuminate indicating the unit is ready for use.

NB This neon light alternates between illuminated and off, which is normal and can be used in this mode.

- 4) Place a glass slide and filter onto the sliding platform (the platform has space for up to 3 slides) and position centrally beneath the outlet tube.
- 5) Draw approx 0.3 0.4 ml of acetone into the syringe. Insert the syringe into the hole in the top plate. Inject the acetone at a steady rate whilst holding the syringe firmly in place. After vapour discharge has occurred remove the syringe.
- 6) Withdraw the glass slide from the platform. The filter should now be clear. If not or only partially cleared, repeat step 5.
- 7) After waiting a few minutes for the acetone to evaporate apply a drop of triacetin to the centre of the cleared filter using a micro pipette or dropper.
- 8) Cover the filter with a cover slip.
- 9) Place the slide onto the heater pad and leave for approx 10 minutes. The filter can now be analysed.

WARNING

Acetone is highly flammable. Do not breathe vapour or smoke. Keep away from sources of ignition. Use only in a well-ventilated area. Miscible with water.

Beware of the following parts which will be hot to touch: Outlet Tube and Heater Pad

ACETONE

MATERIAL DATA SAFETY SHEET

Identification

CAS number: 67-64-1 EINECS number: 200-662-2 Stock code: 3101294/1402

Composition

Percentage: Approx 100% Acetone

Hazard Identification

Main hazard: Highly flammable

First Aid Measures

Skin contact: Flood the splashed area with quantities of running water

Eye contact: Wash out with water or saline solution for at least 15 minutes

Ingestion: If confined to the mouth, give large amounts of water as a mouth wash. Ensure the mouth is not swallowed. If the chemical has been swallowed, give about 250 ml water to dilute it in the stomach. In severe cases seek medical attention.

Inhalation: Remove the casualty out of the danger area first ensuring your own safety. Loosen the patient's clothing. If unconscious, place the patient in the recovery position and monitor breathing. Apply artificial respiration *ONLY* if the patient is <u>not</u> breathing. Seek medical attention when anyone has symptoms apparently due to swallowing or inhalation.

Fire Fighting Measures

Exposure hazards: Use self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Keep containers cool by spraying with water if exposed to fire.

Suitable extinguisher: Extinguish with carbon dioxide, dry chemical, foam or water spray. DO NOT use water jet.

Accidental Release Measures

Personal protection: For small quantities wear gloves and face shield

Leaks and spills: Sweep up spilled substance but avoid making dust. Transfer to a closable container for disposal by an appropriate method or retain for recovery.

Clean up procedures: Wash the spillage site with large amounts of water.

Handling and Storage

Handling requirements: Store in a cool, dry well-ventilated area away from heat or other sources of ignition. Keep away from acids and other oxidising agents.

Storage precautions: Wear eye protection, gloves and protective clothing.

Exposure Controls and Personal Protection

Personal protection: For small quantities wear face shield and gloves.

Exposure limits: 750ppm - TWA; 1500 ppm - 15 min.

Type: ORL-RAT LD50

Toxicity: 9750 mg/kg

Physical and Chemical Properties

Chemical formula: CH 3 COCH 3

Appearance and odour: Clear colourless liquid with pungent odour.

Solubility: Miscible with water, also alcohol, chloroform and diethyl ether.

Boiling point/range °C: 56.3

Melting point/range °C: -95

Oxidising:

Explosive limits - lower: 2.5

upper:12.8

Flash point °C: -18

Part coefficient:

Flammability:

Autoflammability °C:

Vapour pressure: 185 mm 20°C

Relative density: 0.79

pH:

Stability and Reactivity

Stability: Stable