

**SAFETY DATA SHEET**  
ETHYL BROMOPYRUVATE, TECH

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Issued: 28/03/2007

Revision No: 2

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

**Product name:** ETHYL BROMOPYRUVATE, TECH

**CAS number:** 70-23-5

**EINECS number:** 200-729-6

**Product code:** OR015293

**Use / description of product:** Corrosive. Lachrymatory. Liquid.

**Company name:** Apollo Scientific Ltd  
Bredbury, Stockport, SK6 2QR, Tel 0161 406 0505

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

**Hazardous ingredients:** ETHYL BROMOPYRUVATE, TECH >90%

**3. HAZARDS IDENTIFICATION**

**Main hazards:** Causes burns.

**Other hazards:** Lachrymator

**4. FIRST AID MEASURES (SYMPTOMS)**

**Skin contact:** Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

**Eye contact:** Corneal burns may occur. May cause permanent damage.

**Ingestion:** Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

**4. FIRST AID MEASURES (ACTION)**

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

**Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

**Ingestion:** Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

[cont...]

**5. FIRE-FIGHTING MEASURES**

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Carbon dioxide. Dry chemical powder.

**Exposure hazards:** Corrosive. Hazardous products of combustion may include carbon dioxide, carbon monoxide, hydrogen bromide.

**Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

**Environmental precautions:** Take precautions to ensure product does not contaminate the ground or enter the drainage system. Contain the spillage using bunding.

**Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

**7. HANDLING AND STORAGE**

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. Protect from moisture.

**Suitable packaging:** Must only be kept in original packaging.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Impermeable gloves.

**Eye protection:** Tightly fitting safety goggles. Ensure eye bath is to hand.

**Skin protection:** Impermeable protective clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**State:** Liquid

**Colour:** Yellow

**Boiling point/range°C:** 98-100/10mm

**Flash point°C:** 98

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**10. STABILITY AND REACTIVITY**

**Stability:** Stable under normal conditions.

**Conditions to avoid:** Heat.

**Materials to avoid:** Strong oxidising agents. Strong acids.

**Haz. decomp. products:** In combustion emits toxic fumes. Hazardous products of decomposition or combustion may include: Carbon monoxide, carbon dioxide, hydrogen bromide.

**11. TOXICOLOGICAL INFORMATION**

**Chronic toxicity:** MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.

**Routes of exposure:** Refer to section 4 of SDS for routes of exposure and corresponding symptoms. MAY BE HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN

**12. ECOLOGICAL INFORMATION**

**Mobility:** Data not yet known

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Other adverse effects:** No data available.

**13. DISPOSAL CONSIDERATIONS**

**Disposal operations:** MATERIAL SHOULD BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS

**Disposal of packaging:** Dispose of as special waste in compliance with local and national regulations Observe all federal, state and local environmental regulations.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**14. TRANSPORT INFORMATION**

**ADR / RID**

**UN no:** 1760

**ADR Class:** 8

**Packing group:** III

**Classification code:** C9

**Shipping name:** CORROSIVE LIQUID, N.O.S.

**Labelling:** 8

**Hazard ID no:** 80



**IMDG / IMO**

**UN no:** 1760

**Class:** 8

**Packing group:** III

**EmS:** F-A,S-B

**SAFETY DATA SHEET**  
ETHYL BROMOPYRUVATE, TECH**Marine pollutant:** .**Labelling:** 8**IATA / ICAO****UN no:** 1760**Class:** 8**Packing group:** III**Packing instructions:** 818(P&CA); 820(CAO)**Labelling:** 8**15. REGULATORY INFORMATION****Hazard symbols:** Corrosive.**Risk phrases:** R34: Causes burns.**Safety phrases:** S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.**16. OTHER INFORMATION****Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.