

## Identification of substance

Product name and/or synonyms:

BROMURE D'ETHIDIUM (BET), HOMIDIUM, NOVIDIUM, BABIDIUM

CAS number: 1239-45-8

Molecular formula:  $C_{21}H_{20}BrN_3$

EtBr must always be used in an aqueous solution. Weighing of the substance is prohibited.

## Good laboratory practice

- Heating of gels containing EtBr is prohibited.
- Wait until the agarose gel temperature has dropped to 45-50°C before adding the EtBr.
- Use dropper bottles where possible, to limit the release of EtBr aerosols.
- Mark the handling area with appropriate signage (sticky tape, EtBr tape, etc).
- The work area (preparation and electrophoresis) must be routinely cleaned after handling, or must be protected beforehand with absorbent, waterproof paper ('Benchkote' or 'couch roll'), which must be changed regularly (dispose of with chemical waste).
- Carry gel containing EtBr in a special carrying container.

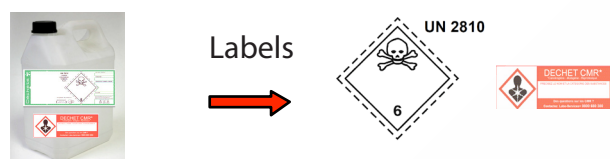
Do not touch clean areas with gloves soiled with EtBr, to prevent contamination of shared workspaces!

## Waste disposal

All waste potentially soiled with EtBr must be disposed of with EtBr-specific chemical waste.

**Liquid waste containing EtBr** (migration buffer or stain bath)

- Never pour liquid waste down the sink.
- Use drums approved for collection and transport of chemical waste.
- The drums will be labelled in accordance with current transport regulations (see labels below).
- Do not exceed the filling level.
- Keep the drum on a storage base.



**Solid waste contaminated with EtBr** (gloves, absorbent paper, outer packaging, gel, etc)

- Use bins approved for collection and transport of chemical waste.
- Do not exceed maximum weight of 10kg per bin.
- The bins will be labelled in accordance with current transport regulations (see labels below).



## Accident & incident procedures

In case of eye contact

- Rinse immediately under running water for at least 15 minutes (eyewash or shower station), with the head tilted back, spreading eyelids while looking downwards.
- Do not remove contact lenses.
- Go to the occupational health department.

In case of skin contact

- Rinse immediately under running water for at least 15 minutes without rubbing.

In case of contained surface contamination

- Signpost the contaminated area. Stop the liquid from spreading, using absorbent granules or paper.
- Clean the affected area with a suitable substance (ethanol). Do not use bleach.
- Dispose of waste with chemical waste (CMR drums for liquids and CMR bins for solids).

In case of major surface contamination (e.g. EtBr or liquid CMR drum knocked over or for decontaminating an 'EtBr' room when starting a different job): contact the health and safety department for your unit.

## Hazard identification

New classification (CLP Regulation)	Former classification (EU System)
<p><b>HAZARD</b></p> <p><b>Category 2 MUTAGEN:</b> Suspected of causing genetic defects</p> <p><b>Hazard statements</b></p> <ul style="list-style-type: none"> <li>- H 302 : Harmful if swallowed</li> <li>- H 330 : Fatal if inhaled</li> <li>- H341 : Suspected of causing genetic defects</li> </ul>	<p><b>Category 3 MUTAGEN:</b> Substances that cause concern for humans owing to possible mutagenic effects</p> <p><b>Risk phrases</b></p> <ul style="list-style-type: none"> <li>- R68 : Possible risk of irreversible effects</li> <li>- R26 : Very toxic by inhalation</li> <li>- R22 : Harmful if swallowed</li> <li>- R36/37/38 : Irritating to eyes, respiratory system and skin</li> </ul>

## Protective Equipment

Collective Protective equipment	Personal Protective Equipment
<p><b>Chemical protection:</b></p> <ul style="list-style-type: none"> <li>- Use of a fume cupboard is advised when pouring and cooling gel containing EtBr.</li> </ul> <p><b>UV Protection:</b></p> <ul style="list-style-type: none"> <li>- The lid or built-in fixed screen system on the lightbox must be kept in place (especially during the gel cutting stage).</li> </ul>	<ul style="list-style-type: none"> <li>- Lab coat compulsory (buttoned up, sleeves rolled down).</li> <li>- Use nitrile gloves.</li> <li>- Change gloves regularly. Gloves must always be removed when leaving the dedicated intercalating agent handling area (e.g. when opening the door).</li> <li>- Safety goggles (when handling buffer containing EtBr, preparing gel and positioning the comb).</li> <li>- Use a polycarbonate UV-protective visor / face shield (when viewing and cutting the gel).</li> </ul> <p>polycarbonate UV-protective visor</p>

## Storage

- Store in a clearly marked location.
- Store the product in its original bottle. Do not decant into an unmarked container.
- Store the bottle in a secondary container (plastic storage box).
- Store away from light and all heat sources, in a cool, dry, well ventilated area.
- Store away from oxidizing agents (nitrates, perchlorates, peroxides...).

## Procedure for all accidents or incidents (Inserm)

- Visit your GP, the hospital emergency department or the occupational health doctor at your place of work within 24 hours.
- For injuries confirmed by a doctor, make an occupational accident declaration.
- Notify your health and safety officer, preventive health assistant or team leader and record the event in the 'health and safety at work' logbook.
- Report the accident or incident to the medical staff (preventive health doctor) and the health and safety technician.