



Just in case

Acids in
safety bottles



But if ...

“How did it happen?” is always the question that is asked after an accident. In any laboratory, however much care is taken, breakage does occur; it's something that simply has to be reckoned with.

As to how harmless breakage in a laboratory is depends on the circumstances. Fortunately, in most cases, all that is required is proper clearing up of the spilled contents and glass splinters; however, in some cases, serious injury, contamination or consequential damage is the result.

We at Merck have been thinking of the risk involved with acids in glass bottles and have come up with an effective solution: the “Safebreak” safety bottle – a glass bottle coated with polyethylene. The PE coating provides maximum safety in cases of breakage. Should e.g. the bottle fall and break, the liquid and glass splinters are reliably retained within the polyethylene coating.

Each Safebreak bottle is fitted with a screw cap made of polyethylene but with an integrated PTFE (Teflon*) component. This S40 cap renders the bottle absolutely airtight so that no liquid or vapor can escape.

The coated bottles can be disposed of as glass; during incineration, the PE is burnt off without affecting the environment.

*Teflon is a registered trademark of DuPont



... we have the solution.

All our experience in dealing with the hazard potential of acids in glass bottles has been incorporated in the specifications of the Merck Safebreak bottle:

1. The bottle must be able to withstand considerable impact force.
2. Should breakage occur, the acid and any glass splinters must be reliably contained.
3. Even after frequent opening and closing, the screw cap must remain perfectly intact.
4. The bottle must be just as recyclable as the conventional glass bottle.



The right bottle from Merck.

Just in case.

The computer-designed exclusive Merck Safebreak bottle combines all the advantages in one:

- It meets all safety requirements
- It ensures that the customer receives exactly the same quality of content as that dispatched from Merck
- It can be incorporated in all logistic systems
- It can be easily and ecologically disposed of and re-used



The conventional glass bottle

Risk of cracks or breakage

Risk of injury to the user

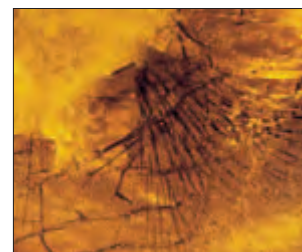
Risk of contamination of the environment

The Merck Safebreak bottle provides more safety for the following acids:

Merck Cat. No. Product

	1.00063.2510	Acetic acid (glacial) 100% anhydrous for analysis EMSURE® ACS, ISO, Reag. Ph Eur
NEW	1.00264.2510	Formic acid 98–100% for analysis EMSURE® ACS, Reag. Ph Eur
	1.00317.2510	Hydrochloric acid fuming 37% for analysis EMSURE® ACS, ISO, Reag. Ph Eur
	1.00456.2510	Nitric acid 65% for analysis EMSURE® ISO
	1.01799.2510	Nitric acid 69% for analysis EMSURE® ACS, Reag. Ph Eur
NEW	1.00573.2510	ortho-Phosphoric acid 85% for analysis EMSURE® ACS, ISO, Reag. Ph Eur
NEW	1.00519.2510	Perchloric acid 70–72% for analysis EMSURE® ACS, ISO, Reag. Ph Eur
	1.00731.2510	Sulfuric acid 95–97% for analysis EMSURE® ISO
	1.12080.2510	Sulfuric acid 98% for analysis EMSURE®

We supply all important acids in polyethylene-coated glass bottles. Should the acid you require not be included in the above list, please contact us. We will be pleased to provide you with a quotation.



The PE-coated safety bottle

Withstands considerable impact force

User cannot be injured by escaping acid

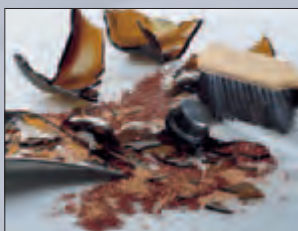
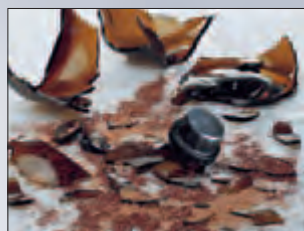
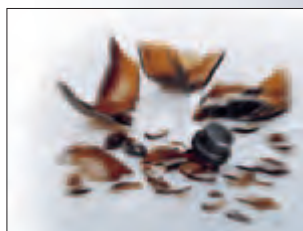
Is protected from leakage/contamination of the environment

Can be recycled as glass

... there is a breakage:

Glass bottles have certainly not reached the end of their useful lives. As containers for all manner of chemicals, they remain a valuable inert material for everyday use in the laboratory. However, if they are to

be safely used, the same care has to be taken as with glassware in private households. A problem only occurs when a bottle containing a hazardous liquid breaks just when and where it shouldn't ...



We provide information and advice to our customers to the best of our knowledge and ability, but without obligation or liability. Existing laws and regulations are to be observed in all cases by our customers. This also applies in respect to any rights of third parties. Our information and advice do not relieve our customers of their own responsibility for checking the suitability of our products for the envisaged purpose.

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