

n e w s f r o m
BROTHERTON

The community newsletter of Brotherton Speciality Products Limited

Issue 13 - Spring 2007

Family connection still strong after 150 years

When guests from as far afield as New Zealand, France and Luxembourg gathered to commemorate the 150th anniversary of Leeds University's greatest benefactor, there was an equally prominent Wakefield connection.

Around 35 proud relatives joined a special reception to celebrate the life and achievements of Lord Brotherton of Wakefield (1856-1930), in the magnificent Brotherton Library - his gift to Leeds University.

Also there was Roger Perry, Managing Director of Brotherton Speciality Products, the company Lord Brotherton founded 128 years ago and which is still based on the same Calder Vale Road site today.

Gifts to university

Roger (centre) is pictured here with Lord Brotherton's great great nephew Christopher Brotherton-Ratcliffe (left) and great nephew David Brotherton (right), both direct descendants of Lord Brotherton's sister, Florence.

To mark the occasion, items from the Brotherton collection - one of the finest compilations of rare books and documents in the country, amassed by Lord Brotherton and gifted to the university - were opened up to public view in Leeds.



Managing Director, Roger Perry (centre), represented the company at the anniversary celebration.

It includes literary treasures such as a first folio of Shakespeare plays, the childhood writings of Branwell Bronte and a collection of illuminated mediaeval manuscripts.

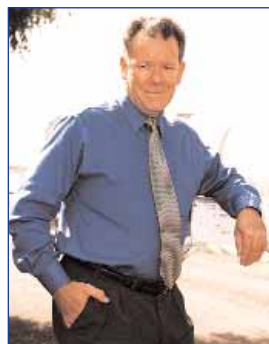
"It is heartening that members of the family still continue to support the work Lord Brotherton started," commented Roger Perry. "More than three-quarters of a century after his death, today's students are still benefiting from his legacy and the company he began continues to be a world-leader in specialist chemical production.

"Interestingly, several of our senior staff graduated from Leeds University. We are proud of our closely-linked heritage and will ensure it prevails well into the future."

INSIDE: 'REACH' TO SET NEW STANDARDS

Produced on behalf of Brotherton Speciality Products Limited, Calder Vale Road, Wakefield, WF1 5PH.
Tel: 01924 371919 Fax: 290408 E-mail: info@brotherton.co.uk Website: www.brotherton.co.uk

One of the biggest issues our industry has faced, the EU's new 'REACH' legislation (see main story opposite), comes into force in a few months' time.



The European Commission estimates that REACH will cost our industry between £1.5bn and £3.5bn in the next decade, as the responsibility for testing whether or not a product may be hazardous switches from public health authorities to manufacturers like ourselves.

However, such expenditure means we will have to increase our prices to cover the cost, making ourselves even more vulnerable to the cheap imports we are seeking to protect against!

Tens of thousands of UK firms, both big and small, will be similarly affected.

Nevertheless, Brotherton is geared up to respond. We have always regarded it as our duty to protect the public and the environment, and this is an extension of that duty of care.

Although we recognise that dangerous chemicals must be strictly controlled, REACH could do more harm than good.

Take DDT for example, the insecticide that was banned from agricultural use some years ago. As a result, some 3,000 children and infants still die every day from mosquito-borne malaria. Compare this to the handful of unfortunate fatalities that blackened its reputation.

Even the World Health Organisation acknowledges that DDT is one of the best tools for fighting the spread of the disease.

REACH is undoubtedly well-intentioned but could in many cases force the substitution of many other chemicals similar to DDT for others which are less effective.

In some cases the risks outweigh the intended benefits, yet in others, the reverse is true.

Whilst we accept that controls are needed, Brotherton will continue to encourage a sensible and pragmatic approach to their implementation.

Roger Perry
Managing Director

REACH set to guarantee chemical quality & safety

What has been described as the most important EU legislation for 20 years comes into effect in June. 'REACH' (the registration, evaluation and authorisation of chemicals), is widely acknowledged as the biggest and most complex piece of European environmental legislation ever devised.

Thousands of chemicals in common use have not been health tested. REACH will put the onus on a business like Brotherton to show that everything it produces is safe.

It is also meant to encourage the replacement of hazardous chemicals with friendlier alternatives and to spur the research and development of more new products.

The legislation addresses two main specific issues:

Safety: industry currently uses thousands of chemicals that have not been tested for their effect on human health and the environment. It is currently left to public health authorities to test those that they think may be hazardous - but only 140 chemicals have been selected for risk assessment since 1993, and even fewer have completed the process. REACH will ensure that any chemical produced or imported in significant quantities has to be tested unless sufficient safety information already exists. The cost will be borne by the producer or the importer.

Replacement of hazardous chemicals: while some hazardous chemicals, such as DDT and PCBs, are banned by the Stockholm Convention as persistent organic pollutants (POPs), others are still widely used, despite evidence that they may cause cancer, or damage the body's hormone system. In future, businesses will be able to use 'substances of very high concern' only if they have authorisation from a new European Chemicals Agency. Authorisation will be

granted under specific conditions, and will have to be regularly renewed, encouraging companies to seek safer alternatives.

Containing some 850 pages of text, REACH will see an estimated 30,000 chemicals registered over the next 11 years. Unfortunately, it is calculated this could lead to at least one million more animal tests.

The European Commission has published a timetable for registration in phases, whereby the most hazardous chemicals and those used in the largest volumes would be registered first. Chemicals produced or imported in

quantities under one metric tonne will be exempt, while those used for research will not have to be registered for five or 10 years.

The EU's chemical industry produces 31% of the world's chemicals and employs 1.7 million people. Millions of others work in industries such as construction, car production or textiles, which are big users of chemicals.

Commenting on the initiative, Steve Elliott, Chief Executive of the Chemical Industries Association, said: "this has truly been a legislative marathon. During the past decade, industry has consistently supported the need for a workable REACH to replace the existing regulatory framework, which is insufficient to provide confidence to both industry and consumers.

"Now a new race begins to ensure that REACH is implemented and enforced as effectively as possible.

"There are many practical issues that need to be resolved and, as industry, we are committed to playing our part with the commission, national governments and their regulators to ensure that we deliver a REACH that gives confidence and certainty to businesses and consumers alike."



REACH will see an estimated 30,000 chemicals registered over the next 11 years.

From smelling salts to non-stick pans...

Ammonium carbonate is not a name which will be familiar to many, if any, of our readers.

However, like a number of other Brotherton products, it is a vital component in a wide variety of everyday household items.

It is produced as a hard white crystalline powder in a shape reminiscent of an igloo (below).

Its characteristically pungent odour of ammonia has long made it the main ingredient in smelling salts,

to revive those who had fainted. It was also used for centuries to treat blood-poisoning from scarlet fever.

Often referred to as 'baker's ammonia', it was a forerunner to modern leavening agents such as baking soda and baking powder.

Other uses include tanning, chrome-plating, the manufacture of rubber goods and glue, for washing & de-fating woollens and even as a component in fire extinguishers.

Formerly known as *sal-volatile* or *salt of hartshorn*, it was traditionally obtained by the dry distillation of nitrogenous organic matter such as hair, horn and even decomposed urine. Modern production methods are a lot more scientific!

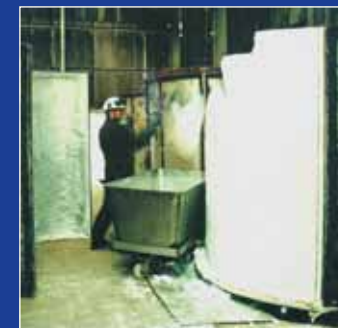
Perhaps the most widespread use of ammonium carbonate is in the manufacture of 'Teflon' non-stick coatings, mainly in cookware.

Known technically as PTFE (polytetrafluoroethylene), it is sometimes said to be a spin-off from the US space program.

Many believe this to be an urban legend however, as Teflon pans were commonplace before the first manned space flight in 1961.

PTFE is inert to virtually all chemicals and is considered the most slippery material in existence.

Recognised worldwide for its superior non-stick properties, it is also used as a soil and stain repellent for fabrics and textile products.



Teacher training finally pays dividends

It might have taken almost 40 years to come to fruition, but Stuart Hall's teacher training has finally paid dividends.

After qualifying, Stuart followed a completely different career path, before eventually becoming a Laboratory Technician at Brotherton.

"I intended to teach maths and science," recalled Stuart, "but my chemistry knowledge has remained virtually untapped ever since."

After 20 years running his own dental ceramics business, Stuart joined Brotherton 20 years ago as a part-time fitter. He filled a variety of other roles and switched to full-time in 1996.

Now he's part of the five-strong lab team, responsible for guaranteeing that everything that passes in or out through the Brotherton gates is of the highest quality. Even the water used to cool some of the manufacturing processes is tested for purity before being returned to the River Calder.

Between them, they provide a 24-hour service: checking every product before, during and after it is manufactured and ensuring that all raw materials used are of the specification demanded.

Laboratory approval

"It's a very different discipline to what I was used to on production, where the most common unit of measurement was kilos," outlined Stuart. "Now it's all about droplets and parts per million."

Before any production process gets the go-ahead, an initial sample must be checked and receive laboratory approval.

"Most are fairly routine and involve a simple test" said Stuart (right), "but others require an eight or nine-stage procedure, often taking up to half an hour." Further tests are conducted during production and when the run has been completed.

Goods inwards and outwards pass through an equally stringent process. Vehicles bringing goods onto the site cannot unload until what they are carrying has been satisfactorily passed by the laboratory and tankers for outward deliveries are checked before, during and after loading. Even raw materials stored on site are routinely monitored.

Stuart acknowledged that computerisation had simplified many of the routines, with calculations able to be made at the touch of a button.

"We can take a syringe full from a 10-tonne batch and analyse it instantly," he went on. "In the event that it is not as it should be, the computer will calculate what measures need to be taken to correct it: from acidity and alkalinity to specific gravity and refractive indices."

Paperwork has not been entirely banished however and written record of everything that passes through the lab is meticulously maintained.

For a role that involves a lot of routine, Stuart says that his job is anything but. "The Brotherton range includes a lot of seasonal products, such as aircraft de-icers and mosquito repellents," he explained, "and there's always something to provide a fresh challenge."

"Like the ammonium formate ordered by a dubious new customer who we suspected might use it to produce amphetamines," confided Stuart with a wry smile. "It ended up being delivered by the Police, instead of our normal carrier!"

Outside work, Stuart's practical skills also come in handy for his main hobby interest. He's a motorsports fanatic - and recently built a Morgan two-seater sports car from kit form.

