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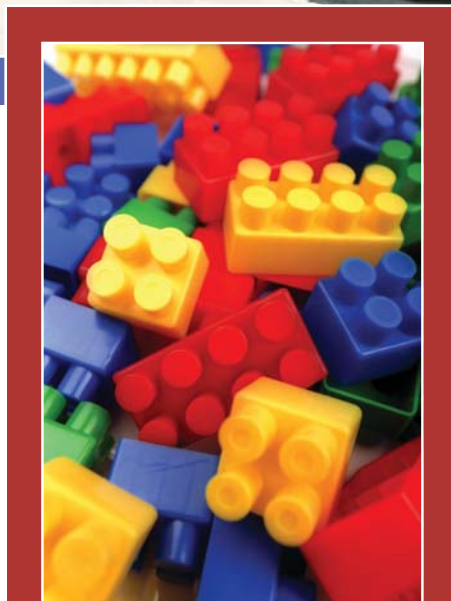
The Promoter

OF STANDARDS & QUALITY IN BOTSWANA



Damage Controller

The BOBS test truck that will check weighbridges across the country. Accurate weighbridges are essential to control road damage in a country that relies heavily on road haulage.



Playing it safe

With imports of manufactured toys increasing, children in Botswana are being exposed to potential health and safety risks much more than in the past. BOBS has taken the initiative to make sure that our kids play it safe.

See page 7

Tackling a weighty problem

New BOBS test truck for verification of weighbridges to guard against damage on the road

By DITLHAKE D TAU

Botswana Bureau of Standards has acquired a specialised Weighbridge Test Unit vehicle to carry out the verification of weighbridges and large platform scales, to test for the safe working load of heavy vehicles on the road.

The unit carries 30 calibrated 1-tonne block weights and a set of smaller weighs and a forklift vehicle to handle them. The total weight is about 50 tonnes.

The Weighbridge Test Unit is available for verification locally as well as in the SADC region.

The action of traffic has a wear-and-tear effect on the road, the severity of which depends largely on

the weight of the vehicle. Measures are in place in the form of legislation – the Road Traffic Act – to regulate load weight and control the effect of traffic on the country's roads, to minimise damage and keep them safe.

Weighing facilities in the form of strategically located weighbridges are in place to enforce this law. The accuracy of these weighbridges can be precisely determined and monitored by the new BOBS test vehicle.

The reliability of weighbridges is vital, to prevent vehicles with prohibited load weights using the road, causing potholes and other damage – making the road dangerous as well as costly to repair.

Plugging in to safety

BOBS gives the boot to non-compliant plugs, sockets, outlets and adaptors

By **ALFRED KGOTLAETSILE**

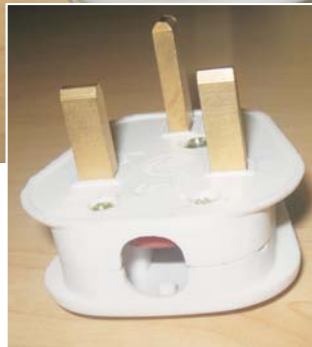
Following a national survey in 2003 to look into the quality of goods imported into Botswana, the results of which included solutions for pre-shipment inspections, evaluation of certificates accompanying goods, compulsory national and government specifications and mutual agreement of certificates, Botswana Bureau of Standards developed the Standards (Import Inspection) Regulations (SIIR), which was gazetted in September 2008 and implemented in April 2009.

The three main duties of the SIIR include inspection and testing of prescribed products in the country of origin, checking of goods at the borders (points of entry) and market surveillance in Botswana. prescribed SIIR products, 13 amp plugs, socket outlets and adaptors, and LPG regulators were the least compliant. A grace period was allowed, from May to August 2010, in which traders, importers and stakeholders in general were warned that non-compliant products would be forcibly removed from September 2010.

By the end of March this year, more than 8 000 of these products had been recalled, and either sent back to their countries of origin or destroyed locally in accordance with the SIIR. It is worth noting that non-compliant products are destroyed or re-exported to the countries of origin at the importer's expense.

If one wishes to bring products that have been re-exported back into Botswana, application to do so must be made to BOBS, which will re-inspect them and if satisfied issue a certificate to allow them to be imported into the country again.

To raise public awareness and let consumers know about safe and unsafe plugs, sockets and adaptors, the



Non-compliant and compliant plugs (visual inspection). The plug on the left has no wiring instructions and no insulation sleeves on the live and neutral pins. Above: Compliant portable socket outlets with shutters where the plug is inserted.

Compulsory Standards Unit of the Directorate of Regulatory Compliance placed educational material in the newspapers during the months of March and April 2011. Public response was excellent, resulting in radio and television interviews and discussions.

Consumers must understand the roles played by BOBS and the Department of Consumer Affairs. BOBS is mandated to prevent the placement of non-compliant products in the market, and action is taken against defaulters. After purchase, the Department of Consumer Affairs deals with buyer-seller issues in accordance with the Consumer Protection laws.

Consumers are urged to ask for BOBS certificates from their suppliers when buying any regulated product.



A non-complaint portable socket outlet with no shutters.

‘Sending them back by the thousands – at the importers’ expense.’

Drinking water standard revised to combat diseases

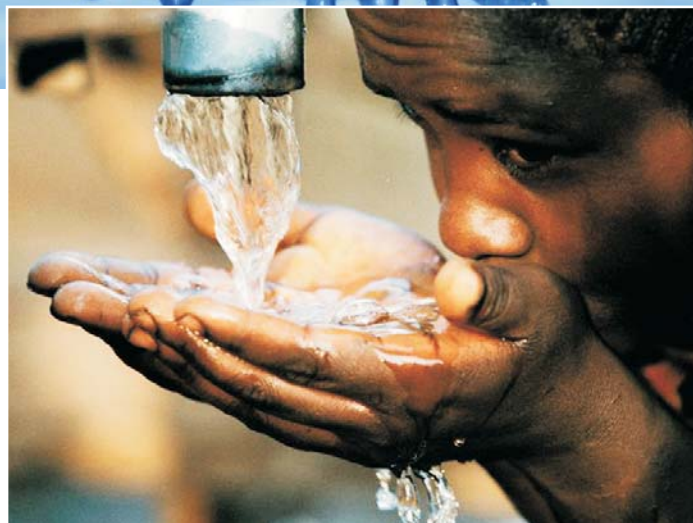
By **ZUKI RADITLADI**

Waterborne diseases are one of the leading causes of death worldwide. Those at greatest risk of these diseases are infants and young children, the elderly, the immune compromised and people who are living under unsanitary conditions. Research by the World Bank shows that 88 percent of all waterborne diseases are caused by unsafe drinking water, inadequate sanitation and poor hygiene.

The 2008 report by UNICEF indicates that 884 million people worldwide do not have access to safe drinking water, and the World Health Organisation says assurance of safe drinking water is a foundation for the prevention and control of waterborne diseases.

In a move to help ensure that water delivered to consumers is safe – thereby eliminating the chances of contracting water related diseases such as gastroenteritis, diarrhoea, dysentery, hepatitis or typhoid fever – the BOBS Water Quality Technical Committee has revised the drinking water standard known as BOS 32.

The second edition of the drinking water standard BOS 32:2009 is based



on the 2006 Drinking Water Quality Guidelines published by the World Health Organisation and the South African National Standard SANS 241:2006. The 2009 version of the drinking water standard specifies two classes of water suitable for drinking defined in terms of physical, organoleptic, chemical and microbiological constituents. Class I water is considered acceptable for whole lifetime consumption while class II water is considered acceptable for short-term consumption (usual and continuous consumption for periods not exceeding one year).

For each of the physical, organoleptic and chemical determinants, the standard assigns a risk category being

either aesthetic or health or operational as reflected in Table 2, 3 and 4 of the standard.

Bearing in mind that the greatest risk from microbes in water is associated with consumption of drinking water that is contaminated with human and animal excreta, although other sources and routes of exposure may also be significant, the standard through Table 1 (microbiological safety determinants' requirements) focuses on organisms for which there is evidence of disease being caused by ingestion of drinking water, inhalation of droplets or contact with drinking water.

To protect the consumer, BOS 32 gives zero tolerance to the presence of microorganisms that can relate to

waterborne diseases and specifically requires that both classes of water (I and II) should comply with these microbiological requirements.

The sampling programme of BOS 32:2009 as outlined in Annex A recommends that for a population of less than 10 000 people the minimum sampling for chemical analysis should be once every three months, and for microbiological analysis once every two months. For a population of more than 10 000 the minimum sampling for chemical analysis should be once every three months and that for microbiological analysis once every month.

The standard requires that sampling sites should include post water treatment works, reservoirs, major delivery points, network dead-ends, high occupancy buildings, hospitals and schools and areas perceived to be problematic.

BOS 32:2009 was declared a compulsory standard by the Minister of Trade and Industry in the Botswana Government Gazette Vol. XLVIII No 59 dated 19 November 2010.

One of the pillars of Vision 2016 seeks to ensure adequate supply of safe water for human needs.



Three more companies get Certification

The list of companies and organisations successfully achieving internationally recognised quality certification through Botswana Bureau of Standards grows steadily.

BOBS congratulates these latest recipients and wishes them well as they continue to operate to the very high standards that have earned them their prized certificates. They are:

- Can Manufacturers (Pty) Ltd – manufacturers and distributors of food and beverage cans
Quality Management Certificate BOS ISO 9001:2008
- CEDA – Citizen Entrepreneurial Development Agency
Quality Management Certificate BOS ISO 9001:2008
- Gopesh (Pty) Ltd – manufacturers of sheet steel kitchen units and cupboards
Product Certificate BOS 314:2009

They can – and did!

Certification reports by JOYCE L MAJAHA

CAN Manufacturers (Pty) Ltd, the only company in Botswana producing food and beverage cans at its Lobatse plant, has received the prized quality management certification BOS ISO 9001:2008 from Botswana Bureau of Standards.

Making the presentation, BOBS Managing Director Masego Marobela congratulated the company and said it was living up to its vision 'To efficiently manufacture and distribute environmentally friendly food cans of the highest quality to meet and exceed customer expectations through the use of the most advanced technology, skilled workforce and the implementation of sound management systems'.

She noted that certification is a process that requires commitment and ownership by top management, cascading throughout the organisation. Only after rigorous audit, corrective action and passing a further audit can an applicant company be certified as being conformant with the international quality management standard ISO 9001:2008.

ISO 9001 is a customer focused standard, which includes such functions as procurement, records management, product realisation, preventive and corrective actions. By attaining it, Can



Can Manufacturers Acting General Manager Tshepiso Makgoeng receives the company's BOS ISO 9001:2008 quality management certificate and flag from BOBS Managing Director Masego Marobela.

Manufacturers Botswana shows its commitment to providing customer service that consistently conforms to the standard.

Mrs Marobela thanked the company for opting to go through the certification process with BOBS, saying it demonstrated their confidence in the national standards body and their recognition of its capacity and authority to award the international certificate. She looked forward to a continuing fruitful relationship between the two

organisations, noting that in order to retain its certification status Can Manufacturers must satisfy the requirements of ongoing surveillance and auditing by BOBS. She urged the company to maintain the level of excellence that it had demonstrated. 'There is a big difference between attaining certification and sustaining it.'

Can Manufacturers Quality Assurance Manager Ofentse Ngwebula said the company was prompted to seek

‘This certificate is not for sale. It cannot be bought – it is earned’

MASEGO MAROBELA
Managing Director
Botswana Bureau of Standards



Acting General Manager Tshepiso Makgoeng and BOBS Managing Director Masego Marobela with Can Manufacturers' BOS ISO 9001:2008 quality management flag.

‘We are very proud of this – the journey was not a walkover’

OFENTSE NGWEBULA
Quality Assurance Manager
Can Manufacturers Botswana

CEDA certification is a milestone for BOBS

certification by its desire to demonstrate its firm commitment to quality and customer service, and it is pleased and proud to have been successful.

He thanked BOBS personnel for their attentive service and professional advice during the certification process, noting that the journey was 'not just a walkover' and involved a lot of stages such as awareness training, detailed documentation exercises and rigorous quality audits.

Mr Ngwebula said the BOS ISO 9001:2008 certification is very important to the company, giving it the ongoing benefits of international recognition and continual improvement as a world-class manufacturing organisation.

AWARDING BOS ISO 9001:2008 certification to the Citizen Entrepreneurial Development Agency is an important milestone for Botswana Bureau of Standards. That is how BOBS Managing Director Masego Marobela described it when she presented the certificate and flag to CEDA Chief Executive Officer Thabo Thamane at a function at Gaborone International Convention Centre.

She said BOBS was particularly pleased to be certifying CEDA, which plays such a key role in the development of entrepreneurial enterprise in the economy through loan finance, equity and business advisory services. The certificate is in recognition of CEDA's Quality Management System having been assessed as conforming to the BOS ISO 9001:2008 standard.

The development agency becomes the 36th organisation to be certified



CEDA Chief Executive Officer Thabo Thamane at the certificate presentation function.

performance in line with its challenges and mission.

Responding, Mr Thamane said CEDA greatly prized the certification, which would help it to better implement its strategy of quality customer service, and ensure the consistency of services provided throughout the organisation.

“This will help us to help the entrepreneurs of our country”

Thabo Thamane
Chief Executive Officer CEDA

by BOBS against the BOS ISO 9001:2008 Standard after its adoption as a reviewed Botswana Standard in February 2009.

Noting its Mission – ‘to fund and support the development of viable and sustainable citizen businesses’ – she said it was evident that CEDA would use certification as a tool to monitor

Gopesha gets the mark of quality

GOPESHA (Pty) Ltd, which makes a range of steel kitchen cupboards and units, can now put the BOBS Standards Mark on its products, having received the BOS 314:2009 product standard. This Botswana standard covers the requirements for built-in and free-standing kitchen unit cupboard made from sheet steel.

Gopesha Chief Executive Officer Cassie Kruger received the certificate from BOBS Managing Director Masego Marobela, who said it was pleasing to recognise a local company manufacturing high quality products.

Wishing the company well, she said: ‘It is my sincere hope that achieving the BOBS Standards Mark will help you to reduce traders’ reliance on imports, thereby heeding the call for import substitution and diversification of the

economy.’

Mr Kruger said his team were very proud to be awarded the BOBS quality standard, which reflected the high quality of their manufacturing processes as well as of their products.

In addition to kitchen units Gopesha produces steel tables and chairs and provides a range of catering tables to the hospitality industry.



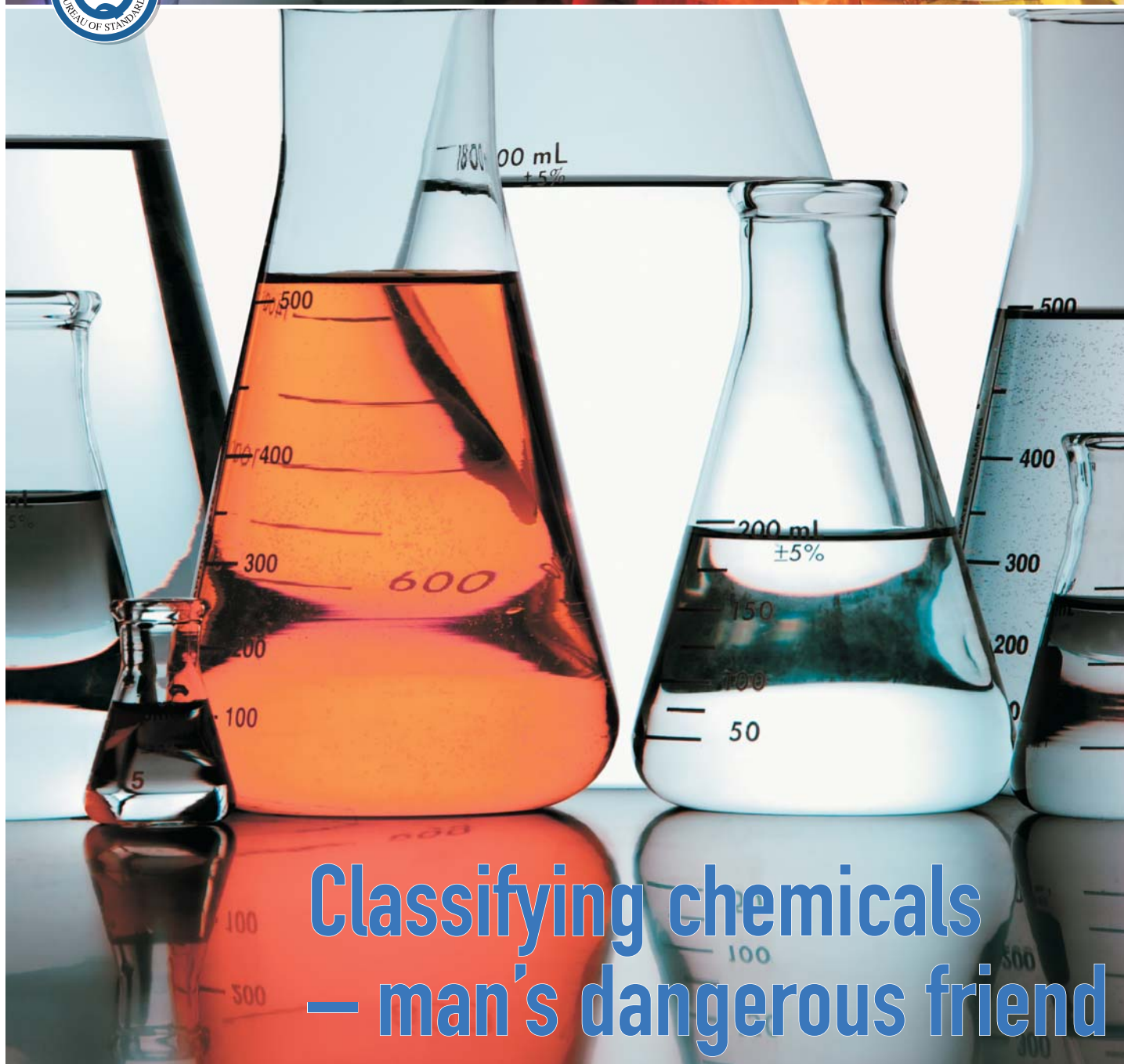
Gopesha CEO Cassie Kruger receives the company's product standard certificate from BOBS Managing Director Masego Marobela.



Delighted Gopesha team members.



BOBS Standard Mark



Classifying chemicals – man's dangerous friend

By **KOPANO BOGOPA**

Chemicals are part of our lives. They are in clothing, food, houses, transport, agriculture and medical and communications products – in fact just about any modern manufactured article that you can think of.

The scale of the chemical industry worldwide is enormous. It employs over 10 million people and generates about US\$ 1.7 trillion worth of production every year.

Throughout their life cycle – production, handling, transport, use and disposal – chemicals can be dangerous for human health and safety and for the environment. Consumers, producers and all who handle chemicals

are in daily contact with this danger – and of course they live in different parts of the world, speak different languages and belong to various social conditions.

With the huge global trade in chemicals and the need to develop national regulations to ensure their safe use, transport and disposal, it was recognised that an internationally harmonised approach to the classification and labelling of chemicals was required, to provide the foundation for such regulations.

As a result, the Globally Harmonised System (GHS) was developed by a United Nations panel of experts and agreed at the Rio Earth Summit in 1992.

A UN document known as the Purple

Book – ‘a globally harmonised hazard classification and labelling system, including safety data sheets and easily understandable symbols’ – was first published in 2003, revised in 2005, again in 2007 and again in 2009.

The Southern African Development Community Cooperation in Standardization (SADCSTAN) is now developing a SADC Globally Harmonised Text based on the Purple Book.

To aid this process, the Department of Trade and Industry in South Africa hosted a workshop on harmonising the classification and labelling of chemicals. Participants attended from Angola, Botswana, Lesotho, Madagascar, Malawi, Mauritius, Namibia, Seychelles,

South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. Botswana was represented by Mr J Mosanawe from the Division of Occupational Health and Safety, Mr A Malefho from the Department of Road Transport and Safety and Mrs Kopano Bogopa from Botswana Bureau of Standards.

The workshop was updated on how chemicals are managed in each country and discussed the development of a policy proposal for the use and implementation of GHS of classification and labelling of chemicals. The workshop also developed model regulations for the use and implementation of GHS in the SADC region, which will be domesticated in each country in the region.

Making sure that our kids play it safe



By **KOPANO BOGOPA**

A significant 'first' in Botswana has been the staging by Botswana Bureau of Standards of a workshop devoted to the safety of toys. It was attended by retailers, research institutions, government departments, nursery schools, parastatals, private sector and non-governmental organisations.

The objectives were to create awareness of the existence of standards for the safety of toys, to show the benefits of standards and to urge members of the public to comment on the standards – which are now at the public comments stage of preparation.

The standards are in three parts:

- Safety aspects relating to mechanical and physical properties, based on the potential hazard caused by such things as springs, metal wires and rods, and small parts that a child can swallow. This standard applies to all toys – a toy being any product or material designed or intended for use in play by children under the age of 14. The standard specifies acceptable criteria for toys, such as shape, size, stability and speed limitation to protect the child from harm. The standard stipulates that appropriate warnings and/or instructions for use must be given on certain toys or their packaging.
- Categories of flammable materials that are prohibited for all toys, as well as requirements concerning the flammability of certain toys when they are subjected to a minor source of ignition. Toys that present the greatest hazard if they catch flame are those worn on the head (such as beards, moustaches, wigs, moulded and fabric masks), disguise costumes and those that are worn by a child in a play (such as cowboy suits, nurse outfits, Spiderman outfits, etc.), play tents and tunnels that enclose the child and restrict rapid exit, soft-filled toys (animals and dolls) with a piled or textile surface that could catch fire.
- Maximum acceptable levels of antimony, arsenic, barium, cadmium, lead, mercury and selenium in toy materials – such as coatings of paints, varnishes, lacquers, printing inks, polymers, polymeric and similar materials, paper and paper board, natural or synthetic textiles, glass, ceramic and metallic materials, materials intended to leave a trace (such as graphite in pencils and liquid ink in pens), pliable modelling materials including modelling clays and gels, paints to be used as such in the toy, including finger paints, varnishes, lacquers, glazing powders and similar materials in solid or liquid form. In testing, the soluble elements of toys are extracted from toy materials under conditions that simulate the material remaining in contact with stomach acid for a period of time after swallowing. The concentrations of the soluble elements are then determined.

Botswana recognises the need to adopt international standards on the safety of toys because our children play with manufactured toys much more today than in the past, when playthings were made at home using readily available and relatively safe natural materials. Toy imports have grown significantly over the years, exposing children to greater potential risk – the more advanced the toy the greater the risk of accidents, and therefore the greater need to observe standards to ensure safety.

Participants at the workshop agreed on the importance of toys being regulated, either by Botswana Bureau of Standards or by a government department mandated to do so. Standards for toys should be mandatory, because as a nation we have the responsibility to protect the health and safety of our children.

Looks good, smells good, tastes good – but you're eating acrylamide!

By **NONO LESEANE**

Just about anything that is crispy and enjoyable to eat has acrylamide in it. Never heard of it? That is not surprising.

Please notice that we did not say crispy and 'good' to eat. That's because acrylamide is not good for you. It is a naturally occurring contaminant in food, and being a contaminant we should not be eating it.

Now, what is acrylamide and what do you need to know about it? Also known as 'acrylic amide' is a white, odourless, crystalline solid that is soluble in a range of liquids such as water and ethanol. It is commonly used in waste



water treatment, papermaking, ore processing and the manufacture of permanent-press fabrics, to name a few.

In 2002 scientists at the Swedish National Food Authority discovered it by chance in food, and since then it has attracted a lot of attention as it has been found that it can be a carcinogen (has the potential to make living cells cancerous).

Acrylamide forms when starchy food is cooked at high temperature – frying, baking, grilling etc. Boiling is not classified as high temperature, and acrylamide is not formed when food is boiled. When starchy food cooks to that brownish, nice smelling crunchy point, that is when acrylamide is likely to have been formed. This appetizing cooking stage is called a 'Millard reaction' and results from a carbohydrate and amino acid interaction at high temperatures. Most of us are attracted to the smell of this reaction, and it makes the food irresistible.

Because acrylamide is naturally forming and is carcinogenic, there has been a lot of interest in it. The Food and Drug Administration in America and the World Health Organisation have not been able to establish the amount that is toxic to humans as most of the research carried out so far has been done on animals. This has made it

difficult to put precise measures in place to safeguard against excessive human consumption of this chemical. However some simple measures are being encouraged by the food industry all over the world to limit the intake of acrylamide.

Widely accepted advice to reduce acrylamide formation in food is:

- Cook starchy food to the lightest brown possible, if you have to eat it brown at all.
- If you can, prepare starchy food by methods other than heating it to above 175 degrees Centigrade (if you enjoy baking or deep frying, you'll know how hard this is).
- Toast bread to the lightest brown.

• In baked breads the acrylamide accumulates in the crust, so you can get rid of it.

Some foods are high on the acrylamide list, and include fried potatoes, coffee, beer, bread, chocolate, almonds, cereals (yes, breakfast cereals), crackers and even some fruits and vegetables. A good rule of the thumb is, if it's brown (any shade of brown), crispy and naturally smells good, then there is a high chances that it contains acrylamide.

Some scientists say there is too much fuss about acrylamide, arguing that since it is naturally occurring in food it must have been consumed for a very long time. But others point to the greatly increased consumption of fast food, most of it fried, today. With regard to the risk of cancer, research has only shown evidence of cancerous toxicity in animals, not humans.

Of course it is up to you to decide what to do with this kind of information, but the fact is that our children are eating many foods that contain acrylamide, at home and in their lunch boxes at school. Doctors and dieticians have long warned against fried foods, so if you are still packing this sort of food in your kids' lunch boxes, or serving it at home, then you have one more reason to break the habit – acrylamide.



STAFF NEWS



PHILLIP KEAKILE

A warm welcome goes to two new staff members. We wish them a pleasant, satisfying and rewarding experience as members of the BOBS team.

PHILLIP KEAKILE – appointed Manager Internal Audit Services in the Managing Director's Office with effect from 1 January 2011.

Phillip holds an MSc degree in Audit Management and Consultancy, a Postgraduate Diploma in Management and Consultancy and a Postgraduate Certificate Audit Management and Consultancy from the University of Central England (UCE). He is also a BCom Accounting graduate of the University of Botswana (1996). Before joining BOBS he was Chief Internal Auditor with Southern District Council. Phillip hails from Thamaga.

MOGAMETSI SELOGILWE – appointed as a Purchasing Officer in the Department of Corporate Services with effect from 14 February 2011. She holds the Diploma in Purchasing and Supply which she received in 2009 from the Institute of

Development Management. Before joining BOBS she was a Senior Materials Inventory Controller at the Botswana College of Distance and Open Learning (BOCODOL). Before that she was an Assistant Supplies Officer at Central Medical Stores. She is from Lobatse.

PROMOTION

Congratulations go to **KEOLEBOGILE SEGOMELO** for her appointment as Director Standards with effect from 1 February 2011. Previously she was Manager Scientific Standards.

CORRECTION

In the last issue of *The Promoter* the authorship of two articles was attributed incorrectly. The article on staff news was in fact compiled by Tumelo I. Koveya, and the article on the reviewed standards mark scheme was written by Victoria Matseka. The errors are regretted, and apologies extended.

Standards for honey production

Botswana Bureau of Standards is pleased to collaborate with the Ministry of Agriculture on the formulation of standards for beekeeping and honey production.

Beekeeping is seen as a potentially lucrative activity undertaken by small-scale farmers, as it can generate income with little expenditure.

The Ministry is producing a television programme on beekeeping to make it more widely known, and a BOBS representative will be one of those interviewed. Others will be the head of the beekeeping section, a farmer who is engaged in small-scale honey production, and an expert on the subject.