

THE INTERNATIONAL CASTOR OIL ASSOCIATION

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To the Membership

The ICOA is celebrating its 50th anniversary in 2007 and, as you know by now, has chosen Phuket Thailand as the site for the General Membership meeting.

During the 50 years of its existence, the ICOA has seen many changes – internally and externally. Starting as a mostly US company led organization, the ICOA has truly become an international association which includes traders, crushers, importers, brokers, end users, shipping companies, ship brokers, surveyors and warehouses.

Over the years the Association has issued a contract specifically for the trading of castor oil, worked with steamship lines to settle disputes of weight, refined the specification for castor oil to protect against chances of contamination, set up a website (which is being overhauled and updated this year), presented papers at American Oil Chemist Society Symposiums and published 2 invaluable technical bulletins.

Other issues that have been discussed over the years – improving agronomic conditions in the growing countries, increasing consumption and enhancing the ICOA itself, have all seen some manner of fruition. These discussions will be continued in Phuket and every member and attendee is encouraged to bring to the table ideas to further expand the presence of castor oil in the world community of vegetable oils as well as suggestions on how the ICOA might continue to benefit its members even more.

There is a lot going on in the vegetable oil complex at this time – the effect of rising prices of all commodities, biodiesel, the REACH program, high petroleum prices and its boon to castor, increased interest in and consumption of castor oil – to name a few.

As the torch is passed from a successful informative and enjoyable meeting in San Diego in May to the delightful and exotic countryside of Phuket, the Association is expecting a large attendance by participants from all walks of the castor industry. All members are encouraged to attend and participate in the discussions and activities.

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MAY 8-10, 2007

I.C.O.A.

Gen'l Membership Meeting

50th Anniversary ICOA

Phuket, Thailand



San Diego May 2006 – The amphibious bus is loading for Phuket.

BRAZILIAN CASTOR CROP

The 2006 Brazilian Castor crop will be 70,000 metric tons, well below last year's 127,000 tons. The short fall is due in part to irregular rain coverage during the growing cycle, but the main reason can be attributed to lack of follow through for implementation of castor based biodiesel projects, in spite of wide spread publicity. The Brazilian Federal Government started the project in 2003 with a view to generate income for small producers in the semi arid zone as well as to improve the country's energy matrix from an ecological point of view.

On Nov 23rd 2005, ANP (National Agency of Petroleum) launched its first tender to acquire biodiesel, granting incentives for castor based biodiesel, the castor having originated from family agriculture located in the semi arid zone. Since then a total of 840,000 m3 of biodiesel was awarded to several companies. The development of the past two years shows that the Brazilian government is determined to make biodiesel happen, although leaving it to the market to decide which vegetable oil will be used. The castor crop in Brazil has not developed to the level which would allow its consistent use in biodiesel and its share in that market has been insignificant to date. Only if and when the government manages to implement an efficient program to substantially and consistently increase production of castor oil, can the biodiesel industry count on castor as a raw material for the program.

On the currency front during 2006, Brazil saw a continuation of the excessive revaluation of the Real, which impacted negatively on the receipts of exporters and in turn on the price to producers. World record interest rates which the Brazilian central Bank is "cultivating" are attracting enormous amounts of speculative money for investment in the local financial markets and stock exchange. This has been a very inconvenient and negative development for the castor grower and could be highly detrimental for the next crop.

Notwithstanding the previous and pending a normal rainfall scenario, we believe that the 2007 Brazilian castor crop may be slightly higher than this year's crop. The rise of the international price of castor during the last few months should benefit producers. However we still have a long way to go before the next crop becomes a reality.

HELLO AND GOODBYE

GOKUL OVERSEAS

Gokul Refoils & Solvents Ltd was founded in 1993. They manufactured a number of vegetable oils Soybean, Corn, Cottonseed, Palm, Groundnut, Sunflower and Mustardseed Oils – before adding Castor oil and its derivatives.

Gokul Overseas joined the Association in 2006 prior to the San Diego meeting which they attended.

MORRIS MARSHALL

It is with regret that we must include the news of the passing of Morris Marshall, formerly of Marpro Ltd and later Morlev Ltd.

Morris was a castor broker for many years. His honesty and integrity were the backbone of his success and his no nonsense style of business kept both buyers and sellers on their toes.

The entire Association extends its condolences to the Marshall family.

CHINA IN THE CASTOR INDUSTRY

The Chinese castor seed crop is grown in three main areas of China – Inner Mongolia and Jilin in the northeast, accounting for approximately 60% of the crop; Shangxi in the middle of North China, accounting for 20-25% of the crop and in Xinjiang in the northwest, accounting for the remainder of the crop. The first three locations are mainly rainfed. Xinjiang is mainly irrigated.

China's normal castor seed crop is between 200-250,000 tons. However, the coming crop which is just beginning to come to the market, will be only around 150,000 tons. The shortfall was caused by a combination of insufficient rains and other crops such as maize stealing some of the land as they gave farmers a better return in the irrigated areas.

China uses castor oil for local consumption, to make derivatives also for local consumption and to produce sebacic acid mainly for the export market. Sebacic acid is by far the largest product produced in China from castor. There are six sebacic acid plants – three large and three small. The three large plants each have a capacity of 15/20,000 tons per annum and the three small plants have a capacity of 3/6,000 tons per annum, giving China a total production of 45/50,000 tons per annum. 60% is for the export market. Sebacic acid usage has been increasing worldwide at the rate of 10% per annum. As long as crude mineral oil prices remain high, this trend should continue.

Because of this year's short crop and an ever increasing need for the raw material both internally and for exportable products, China will need to import larger quantities of castor oil. The logical source is India. In 2005, China imported 50/55,000 tons of castor oil. This calendar year, the figure is expected to reach 75,000 tons. In 2007, it could top 100,000 tons making China by far the largest consumer of castor oil worldwide.

In awareness of its increasing impact in the castor industry, China has for the first time indicated their interest in hosting an ICOA meeting. Additionally several of the larger importers are considering joining the Association. As China is involved with preparing for the 2008 Olympics at this time, the ICOA is considering their invitation for the 2009 ICOA general membership meeting.

With the growing importance of China in the world community in general and the castor industry specifically, it would seem to be an excellent time to encourage some of our Chinese friends to become members and play their part in future developments in the industry.

THE FOLLOWING ARTICLE HAS BEEN REPRINTED VERBATIM WITH PERMISSION OF LUBRISENSE:

The current legal arrangements for chemical regulation in the EU have evolved over a 30 year time frame and they naturally have a form and complexity reflecting this development. In essence they operate broadly by distinguishing between existing and new substances with most of the burden of regulatory obligations falling on new substances.

REACH – What is it?

The development of REACH proposal dates back to the mid-1990's and the intent to improve and modernize how chemicals are regulated in the EU. The result of this White Paper (1) – *Strategy for a future Chemicals Policy*, published in February 2001.

Emerging out of the White Paper, on 29 October 2003, the European Commission adopted Proposals for a new EU regulatory framework for chemicals known as REACH (2) (Registration, Evaluation and Authorisation of Chemicals) with the political objectives to promote a high level of protection of human health and the environment whilst maintaining and enhancing the competitiveness and innovative capability of all parts of the chemical supply chain.

REACH sets out proposals for learning more about all manufactured and imported chemical, it introduces a precautionary approach on controlling chemical of high concern and reverses the burden of proof to industry to ensure all parts of the supply and use chain play their part in determining and then managing identified risks. This paper summarizes the main characteristics of REACH – as set out in the revised Commission proposal – and it is important to note that the exact scope and detail of REACH will change during the process of political adoption. This paper briefly explores the impact on a typical grease supply chain and identifies the preparatory actions ahead of REACH adoption.

The REACH proposals have three main phases: Registration, Evaluation and Authorisation/Restriction. REACH is a series of actions based on drawing together information, generating a hazard assessment and gathering exposure and use details in order to carry out a risk assessment and to then identify risk management recommendations.

REGISTRATION – The new proposals have Registration as the centrepiece. This basic obligation will require companies (or more accurately: legal entities) manufacturing or importing chemicals 'as is' or in preparation above a 1 tonne threshold per year, to register, gather information and data and, based on information from downstream users, identify intended end uses and exposure and then finally to assess risk and communicate risk management arrangements to all downstream users and to a central agency.

REACH mandates information mainly based on volume, it requires gathering and submission of information in a technical dossier and for higher volume substances a chemical safety assessment and report. It will also require information on risk management, exposure scenarios and acceptable intended uses to be communicated through supply chains. It is aimed not just at manufacturers and importers of all chemicals, but will draw in downstream users as well since their role is to communicate back up the supply chain information on exposure and intended use.

The design, scope and obligations of registration are complex and further detail can be found in the Commission REACH proposals (2) and the Commission's Guidance of REACH (3). There are some important exemptions to REACH especially the exclusions for substances of low concern in Annexes II and III and – at least for the foreseeable future - polymers.

There will be a pre-registration phase which will allow consortia building and identification of available data. The deadlines for Registration vary, with the first phase on higher volume chemicals and carcinogens, mutagens and reprotoxins (CMRS). The timings for the proposed registration actions are presently set at :

- By **Year 3** following implementation for high production volume (HPV) chemicals (1000 tonnes or more per year per manufacturer or importer) and CMRs in volumes of 1 tonnes or more;
- By **Year 6** for production volumes in the range of 100 - 1000 tonnes;
- By **Year 11** for low production volume chemicals (1 - 100 tonnes).

Registration will require – for substances above the 10 tonnes per annum category – the development of a chemical safety assessment, the submission of this risk assessment in the form of a chemical safety report to the Central Agency and key information on risk management measures down the supply chain to users.

The financial implications of REACH, especially the costs associated with gathering the information/data for a substance against the data requirements specified for each volume threshold. A worst case scenario assumes no existing data. However, most substances have some information, particularly the high volume chemicals and there is recognition that alternative approaches using categories, surrogate data and read- across approaching may limit the extent of new testing.

This question of ensuring risk is assessed and necessary forms of risk management communicated downstream is a radical part of REACH. Users of chemicals will have an important part to play in supporting the assessment of risk with the duty to ensure information on exposure and use flow back up the supply chain. Downstream users will have to verify their use is supported and assessed for risk.

EVALUATION – The REACH proposals outline different activities during the evaluation phase. Evaluation is effectively the part of the REACH process where the regulators in the ECA or at the national government level begin to intervene in the process.

The first part is a compliance check of the submitted registration which is done to verify and assess completeness rather than the quality of the content of the technical dossier. The next stage begins with the process of technical dossier evaluation which represents a quality assessment of selected elements of the registration together with a mandatory evaluation of any testing proposals made for substances registered at levels greater than 100 tonnes per annum. This mandatory assessment of testing proposals is designed to ensure that animal testing is maintained to a minimum. The next phase is substance evaluation. This is the process where criteria are established for prioritizing substances for further review.

AUTHORISATION & RESTRICTION – The substances selected for the authorization system will be those identified and confirmed to have any of the following properties:

- Carcinogens, Mutagens and Reprotoxins (Categories 1 & 2) – CMRs
- Persistent, Bioaccumulative and Toxic substances (PBT)
- Very persistent and very bioaccumulative substances (vPvB)
- Other substances with serious and irreversible effects of an equivalent level of concern.

For the authorization of these substances and their continued use, it will be necessary to demonstrate that the risk from use is adequately controlled or that the socio-economic benefits outweigh the risks.

SIMPLE GREASE FORMULATION – In order to detail the likely processes and information that is necessary to be gathered an example of a simple grease formulation is taken through the REACH proposals.

Soap thickener – information flow

The soap thickener is a critical part of the grease formulation. At the beginning of the supply chain, all of the raw materials used directly in the manufacture of the soap, i.e. the Lithium Hydroxide and 12 Hydroxystearic Acid (12HSA) and their precursors, will need to be registered. The timeframe at which they have to register will again be determined by their volume level. The manufacturers of these chemicals will also need to support their use in manufacture of a soap thickener.

The Lithium soap is normally manufactured in-situ by the grease formulator. This makes the grease formulator the manufacturer of this chemical and responsible for REACH and any registration actions. As this level is likely to exceed 10 tonnes p.a., then all downstream users of soap will need to be assessed using exposure scenarios, the risk determined and risk management advice communicated to all users. The import of the same soap or formulation containing the soap, from outside of the EU will trigger registration obligations on the importer for each substance in the formulation if they exceed the threshold for registration.

BASEFLUIDS – In order to manufacture an ester basefluid the individual chemicals (acids, alcohols and process chemicals) used in manufacturing would have to go through the REACH process. In addition, the ester manufacturer or importer will have to register this ester under REACH and to ensure all known uses of the ester are identified and supported in the chemical safety assessment – assuming the manufacture or import is greater than 10 tonnes p.a.

ADDITIVES – In order for a grease to perform in-service we also need to include some performance additives. These are necessary additives rather than optional and perform a key role in grease performance and longevity. Each of the chemicals used as an additive or in a formulated additive package will have to be registered in REACH unless again the quantity manufactured or imported by each supplier is less than 1 tonne p.a. (except the viscosity improver or antifoam, which normally is a polymer will initially be outside the scope of REACH).

The likely consequences of REACH on grease formulation are significant. They may include increased costs of raw materials as the financial impact passes down the supply chains; the potential loss of raw materials and the effect not only on future formulation but on existing ones - this will require a re-direction of R&D resources to future proofing formulations; the potential loss of supplier choice and inevitably consequences on availability and cost; and although this has not been covered in detail – the impact of the extended controls on substances of high concern and authorisation obligation to permit continued use.

The potential implication of REACH on all parts of the supply and use chain, even those well down the supply chain are beginning to be realised especially by the automotive industry. A number of the issues emerging are associated with loss of raw materials in Europe and what impact this will have on global formulation trends.

The question of confidentiality and loss of confidential business information remains a key concern to the formulation industry. The obligation to disclose and communicate on composition during the registration process and down through supply chains have been identified as risks to formulation identity and composition leading to the increased likelihood of reverse engineering and loss of proprietary information.

The ultimate scope and form of REACH may change, however it is inevitable that such a change in the chemical industry, to downstream users of these chemicals and then further down the supply chain.

In order to prepare for REACH companies should compile an inventory of individual chemical substances and preparations (with suppliers listed) and establish whether these are manufactured by your company within the EU, imported by your company into the EU or purchased by your company from a supplier established within the EU. The information available (in-house or public domain) for these substances should be reviewed especially for the substances requiring registration by your company rather than by the supplier.

All the readily available information on uses and conditions of uses should be compiled. This information should include categories as industrial use, professional use or consumer use.

References:

1. COM (2001) 88 – White Paper – Strategy for a future Chemicals Policy
2. COM (2003) 644 – Proposal for a Regulation of the European Parliament & of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency and amending Directive 1999/45/EC and Regulation (EC)
3. REACH Implementation Project (RIP) – June 2004 REACH Process. Description: Development of a detailed description of the REACH processes.
4. The Sport Report (Strategic Partnership on REACH testing) July 2005 – Making REACH work in practice.

The ICOA held its 2006 General membership meeting at the Catamaran Resort, a Polynesian themed hotel in San Diego, California. The meeting kicked off with a welcoming reception on Tuesday evening, May 9.



The group enjoyed a half day tour of San Diego, lunch at the PIER Café in Balboa Park and a seal trip in the harbor to round out the day.



Thursday the Association got down to serious business with talks by Alok Mitra, HLL, Tom Wimmer, Soundtankers and David Harp of Arizona Chemical. The afternoon session heard a talk on biodiesel by Doris De Guzman from Chemical Marketing Reporter.



The meeting closed out with a Polynesian themed dinner show.



The ICOA has selected the Evason Phuket Resort & Six Senses Spa as the site for the 2007 general Membership meeting. The hotel is located at Rawai Beach on the southeastern side of Phuket Island and faces the Andaman Sea. The airport is 45 minutes away. Phuket Town is 25 minutes away and the night life section is 40 minutes away. Please visit their website to learn more about the hotel (www.sixsenses.com)

Phuket Adventures has put together a slightly different excursion day for us which will include some sightseeing of Phi Phi Islands and an afternoon picnic lunch at the Holiday inn Phi Phi on Phi Phi island. Weather permitting there will be plenty of time to enjoy beach activities or private meetings.

Be sure to mark the dates and make your plans early to join the Association in celebrating this 50th anniversary.

SCHEDULE OF EVENTS

Tuesday morning May 8, 2007 – Board meeting – Board members only
Tuesday evening, May 8, 2007 – Welcome reception – All paid attendees invited

Wednesday, May 9, 2007 – All day excursion

Thursday morning May 10, 2007 – General Membership meeting – ICOA members only
Thursday afternoon – P.M. session – All paid attendees invited
Thursday evening, May 10, 2007 – Closing dinner

A MEETING REGISTRATION FORM WILL BE SENT TO ALL MEMBERS AND POSTED ON THE ICOA WEBSITE WITHIN A FEW WEEKS. PLEASE WATCH FOR IT AND RESERVE EARLY.