GOED Technical Committee - Minutes

Date: July 11, 2024

PRESENT (please let us know if you were present, but not listed below)

Jenna Ritter (*chair* – Nature's Way of Canada)
Huw Watkins (EuroCaps)
Tony Bimbo (International Fisheries)
Simone Staiger (Eurofins)
Lina Cekaite (Aker Biomarine)
Bente Foss (GC Rieber)
Roberto Fronzoni (KD Pharma)
Yutong Wang (Nutrasource/SGS)
Gerhard Kohn (Vesteraalens)
Fernando Miranda del Solar (Austral Group)
Christine Krumbholz (KD Pharma)
Juergen Gierke (BASF)
Lars Dalheim (NOFIMA)
Anthony Bible (Wiley Companies)
Linda Saga (Eqology) –
Meagan Eggebeen (Amway)
Katharina Schubert (Wiley Companies)
Henriette Meiser-Zessner (KD Pharma)
Luke McPherson (Mara Renewables)
Davina Nagington (Croda)
Kevin Yan (Nutrasource/SGS)
Craig Mallon (dsm-firmenich)
Bradley DaDalt (Jamieson Laboratories)
Arasen Moodelly (Marine Biotechnology Products)
Michael Potvin (dsm-firmenich)
Claus-Michael Brieber (Henry Lamotte Oils)
Guido Medina (Pesquera Diamante)
Marco Figari Borasino (TASA)
Sonia Casanova (Copeinca)
Rafa Gracia (Solutex)
Helen Albans (Croda)
Marvin Boyd (Aker Biomarine)
Agata Szygula (TASA)
Miguel Carillo (TASA)
Stig Jansson (Grøntvedt)
Tim Johanek (Carlson Laboratories)
Arnar Halldórsson (Lysi)
Carol Locke (OmegaBrite)
Dimitri Sclabos (Tharos)
Guy Ben-Zvi (Omega-3 Galil)
Ida Aspmodal (KD Pharma)
Keith Persons (Eurofins)
Magdalena Sobieska-Pietrzak (GC Rieber)
Marita Buarø (GC Rieber/Vivomega)
Miranda Yang (ATK Biotech)

GOED Staff:
Gerard Bannenberg (GOED)
Gaby Cortez (GOED)
Harry Rice (GOED)
Ellen Schutt (GOED)

Guests:

Absented:

Tina Vestland (Golden Omega)
Kaitlin Roke (GOED)
Roger Johan Pettersen (Holterman)
Ilke Balci (EasyVit)
Chloé Lhomme (Fermentalg)
Lilian Thiaux (Olvea)
William Rowe (Nutrasource/SGS)
Frank Möllering (NutriSwiss)
Viorel Marculescu (MBP Solutions)
Chris Gearheart (GOED)

Geir Frode Olsen (Epax Norway/Pelagia) Inge Bruheim (Rimfrost)
Sunil Choudhary (OmegaBrite)

Invitees for this call:

Mogens Larsen Andersen (University of Copenhagen, Denmark)

Approval of Agenda and Minutes (Jenna Ritter - committee chair)

- Any comments on the minutes of the last meeting?
  - *No comments.* The minutes of the last meeting were approved.
- The agenda and meeting documentation were sent out on July 9th, 2024. Any additions or changes?
  - The agenda was approved.

New Technical Committee Members (Jenna Ritter)

- **New members of the Technical Committee**

  - **Lars Dalheim (NOFIMA) –** I work at NOFIMA which is a Norwegian food research institute. I used to work at an omega-3 concentrate producer. I have a Ph.D. on microalgae lipids.
  - **Linda Saga (Eqology) –** *Poor internet connection, will present herself next meeting*
  - **Cecilia Kokkinou (EuroCaps) –** *absented, will present herself next meeting*
  - **Yutong Wang (Nutrasource/SGS) –** Hello everyone. I work as a sample logistics coordinator at Nutrasource/SGS. I studied food science at the Univ. Guelph. My main responsibility is to manage our fish oil program, specifically IFOS. I like to thank Kevin Yan for inviting me to this committee, and I am excited to meet everyone here.
  - **Gabriela (Gaby) Cortez (GOED) – (Gerard)** I would like to welcome Gabriela, who is on the call. Gaby has recently joined the GOED team, and will be assisting Harry Rice with regulatory topics, and myself with technical matters. **Gabriela** – Nice to meet you all. I am a biologist, specialized in food science and technology. Last year I finished my MSc in food innovation and product design. Before that I worked at Nestlé for some years dealing with some specific regulatory topics. I am happy to be here and contribute.

- **Members who have left the committee:**
  - **Jonathan Smith (EuroCaps)**
  - **Nicholas Clark (EuroCaps)**

Monograph/Pharmacopeia Updates (Gerard Bannenberg - GOED)

- **Request for pharmacopeia monographs versions (Harry Rice & Gaby Cortez/GOED)**

  - **Gaby Cortez (GOED) –** I might be reaching to you to ask for some support about specific regulations. I work on a regulatory project compiling regulations from all over the world that are relevant to us. In some countries I have more challenges than in others to accessing the information we need. Thank you in advance for assisting me.

  - **Harry Rice (GOED) –** For the Global Regulatory Map that Gaby is working on extensively, we are creating a list of food additives to consider for inclusion. As a starting point we have looked at the Codex standard for fish oils, which refers to the Codex general standard for food additives. We have compiled a list of food additives of compounds that are allowed in fish oils. In addition, we have a couple that were not on that list and put them together. I would like to share that with Gerard for distribution with the meeting minutes. If you could take a look at that, and let us know if there are additional food additives that we should be considering? This would be for all EPA/DHA-rich oils, not just fish oils. So, also krill oil and microbial omega-3 oils, for example.

  - **Action item** – Distribute request by Harry Rice & Gaby Cortez to review list of food additives relevant to EPA/DHA omega-3 oils by the Technical Committee (**Gerard & Technical Committee members**)

- **TAV test and Guidance Documents (Kevin Yan, Nutrasource/SGS)**

  - **Kevin Yan –** We developed the TAV test (True Anisidine Test) almost ten years ago on behalf of a client, in response to the bad press that this category was getting with the flavorings found in oils. We did lobby at the time to get it included into GOED's Technical Guidance Documents (link; *copy of the relevant section shown on screen*). But we have since divested of the laboratory that offers this test, and we don't offer this test anymore. We would like to ask to have this section removed from the Guidance Documents. We still receive questions about the test, and answer that we don't offer the test anymore. And secondarily, GOED is looking into developing their own test for this classification of products. So, I just don't think this section C-2.2.1 does not need to be in the Guidance Documents anymore.
  - **Gerard** – We don't need to vote on this, we can make changes to the Guidance Documents based on consensus from the committee. Our Guidance Documents are a living document, and it is really up to the members to decide if something should be there or not. Are there any objections to removing this section from the Guidance Documents?

- *No objections voiced*
- Gerard – OK, then we will make a new version of the Guidance Documents and have this section removed.
- **Kevin** – Thanks, Gerard

- **Action item** – Update the Technical Guidance Documents (version Sept 10, 2023) by removing section C-2.2.1 (**Gerard**)

Legislative Updates (Gerard Bannenberg)

- **EFSA draft Scientific Opinion on brominated phenols**

  - **Gerard –** I show here the relevant documentation that will also be included in the minutes. This a draft Scientific Opinion on brominated phenols that EFSA has published recently (link). It is open for comments that can be submitted until August 1, 2024 (link). There was only sufficient toxicological data to evaluate 2,4,6-tribromophenol (2,4,6-TBP). From the abstract you can appreciate that 2,4,6-TBP does not raise concerns for health. I did want to highlight this Scientific Opinion because the main source of exposure of consumers to this compound is from the consumption of fish. I don't expect there will regulatory follow up on this if EFSA concludes that there is no health concern.
    The context for the evaluation of brominated phenols is the European Commission (EC) asked EFSA to make an updated risk assessment of brominated flame retardants. I believe that EFSA is doing that in three or four groups of compounds – we have previously seen the Scientific Opinion on polybrominated diphenyl ethers and on tetrabromobisphenol, and this one on brominated phenols is the latest one.

- **EFSA Scientific Opinion – Small organoarsenic species in food**

  - **Gerard –** EFSA also just published a Scientific Opinion on small organoarsenic species in food (link). As you know, arsenic can be present as inorganic arsenic, a limit for which we ask GOED members to adhere to following the GOED Monograph, but also as organic forms. The two main ones are monomethyl arsenic acid (MMA(V)) and dimethyl arsinic acid (DMA(V)), which are soluble in oils. The Scientific Opinion concludes that there is some concern with regard to DMA(V) – the consumption of fish meat and processed preserved fish is considered among the most highly contributing food items to exposure. I did not find anything specifically about fish oils in the risk assessment, but you may want to check yourself. It could be that in the future, the EC will decide to regulate the organic arsenic species.

- **Arnar Halldórsson (Lysi) –** Do we have a laboratory that can analyze the different types of arsenic species? Or should we measure just total arsenic?
- **Gerard –** definitely total arsenic and inorganic arsenic can be measured by several laboratories and are used for routine quality inspections. I think there are laboratories that can do the speciation analysis, but I need to check which labs do.
- **Simone Staiger (Eurofins) –** I think we do offer this, but I am not an expert on arsenic. But I will write an email to you.
- **Arnar –** Thanks.

- **Action item** – Compile information about which laboratories can measure organoarsenic species in oils (**Gerard**)

- **EC updated MOAH proposal**

  - **Gerard –** I will show you some new information regarding an updated proposal by the EC regarding the proposed legislation of mineral oil aromatic hydrocarbons (MOAH) in food, and in particular with regard to marine oils. We have highlighted this news in a recent News Alert (link) and in the Current (link). Interestingly, there has been a large change from the earlier proposal in January this year with a maximum limit of 2 mg/kg MOAH for oils. That is based on the current harmonized action limit agreed upon by the EU member states. But the new proposal asks that marine oils meet a maximum limit (ML) of 10 mg/kg beginning on January 1, 2026. And then from January 1, 2030, going forward with a ML of 5 mg/kg. Nicely aligned with this are the same limits for food supplements. We believe that stakeholder input to the EC has been very important for elaborating this new draft proposal. We know that individual members have individually contacted their national food authorities, which will have had a big impact. And also GOED's letter (link) in which we pointed out a number of analytical challenges and the interference with MOAH quantification by the presence of natural substances in many omega-3 oils.
  - **Claus-Michael Brieber (Henry Lamotte Oils)** – Apart from marine oils, is there anything said about microalgal oils?
  - **Gerard –** Microalgal oils are not clearly specified, indeed. That is something that has happened with MLs for other contaminants – it is not clear of the limits apply to microalgal oils as they do for marine oils. If it is directed to EPA and DHA-rich oils, one would assume that the category covers microalgal oils as such.
  - **Arnar –** I would say this is reasonably achievable, if we are talking about finished products. I think this is a relief.
  - **Claus-Michael** – If algal oils are not covered by "marine oils", then you are at 2 mg/kg, and this is even more a challenge.
  - **Arnar**- You mean with algal oils. Because you don't have a refining option? Is that the case?

- **Claus-Michael** – Yes, you have refining options, but even with refining you have oils with MOAH levels higher than 4 or 5 mg/kg on the market. It would be good if there are some arguments to say that the algal oils are summarized together with the marine oils.
- **Gerard** – We can consider reaching out to the EC to get clarity and to suggest or assure that microalgal EPA/DHA omega-3 oils will be considered as part of the marine oil category. And the food supplement category of course.
- **Claus-Michael** – Yes, that would be great, thanks.
- **Arnar** – Can you show us the dates again?
- **Gerard** – Yes, starting with max 10 mg/kg MOAH from Jan 1, 2025, and max 5 mg/kg from Jan 1, 2030, going forward. And I have heard through one of our members that products that are already on the market by these dates, would be allowed to adhere to the former ML until the end of their expiration dates. But I have not seen that in writing yet.
- **Fernando Miranda del Solar (Austral Group)** – The values are for refined marine oils? Or also for crude marine oils?
- **Gerard** – Yes, I will get to that in a minute.
  So, there are other MLs for infant formula, and other formulae like for children and special medical purposes (see link). Basically, these are still the same as in the previous proposal, and which depend on the product's fat content.
  The new timeline for this advancement of this updated proposal is that EU member states will vote on this in Q1 2025, followed by approval (or rejection) by the EU Council of Ministers and the EU Parliament. This is still a draft proposal, and we don't know what is going to happen over the next six months. Hopefully there won't be any further amendments because this looks pretty favorable and achievable to our sector.
- **Arnar** – Has there been any recent advancements with regard to analytical technology that allows for achieving an LOQ of 0.5 mg/kg (*ML for formula products with < 4% fat/oil content*)? I thought analytically-wise it was not possible to have an LOQ less than 1 mg/kg.
- **Gerard** – Apparently for foods with a very low fat content (< *4%*) that is possible, at least that is what the reference laboratories have been able to achieve.
- **Claus-Michael** – Correct. The lower the fat content, the lower you can go down. With a 100% fat content even an LOQ of 2 mg/kg is a challenge, but if you have less than 50% and definitely below 4%, you can easily go down.
- **Arnar** – Interesting
- **Gerard** – There is one additional interesting point I wanted to make, and that is the text at the end of the Annex. It is a little difficult to understand but for dried, diluted, processed and compound foods, the proposal refers to a specific EC regulation – Article 3 of Regulation (EU) 2023/915 – which defines the rules for how to calculate the ML when such processes are used. I am imagining, for example, a milk product enriched with omega-3 oils, where one can apply a dilution factor in order to determine the limit of MOAH one should meet for such a type of finished product.

- Furthermore, we recently received a letter from the EC, which was nice to receive because it showed that the EC actually received our letter earlier this year and consider us as a stakeholder. The letter pointed out a Frequently Asked Questions (FAQ) document about MOAH. You can find this information in our recent July 8, 2024 Current issue (link). From this FAQ, I like to highlight two points. The first is answering a question "*Should MLs be set for raw agricultural commodities or only for products placed on the market for the final consumer*". Please read here "marine oils" as well. The answer is summarized as "…*Therefore, the MLs should apply to raw agricultural commodities, products placed on the market for the final consumer and all intermediate products*". So, these new MLs of 10 mg/kg, later 5 mg/kg, would be applicable to also crude fish oils and intermediate steps of processing and refining. The aim of the EC is to drive everybody in the entire supply chain towards meeting these limits.
- **Arnar** – That is very unusual. For contaminants, like dioxins, it is normally the final product that is regulated, not the intermediates. There is a reason why the refining process takes place.
- **Gerard** – Exactly. But I think the reason is that there are so many different types of food products that will be falling under this regulation, that the EC wants to assure that initial producers, which may not be in Europe, are already aiming for staying below these limits. For many commodities it is impossible to remove the initial contaminants once contamination happens.
- **Claus-Michael** – You are right – I think the EC has not seen the refining process as a special process in order to remove contaminants. Crude oils are not food-grade, they are explicitly not food-grade. Because of benzo-pyrenes, dioxins, and all of the other stuff, and they have not thought about this. We must see.
- **Arnar** – The processing of foods is often needed to eliminate risks. It can be chemical or microbial. It would be strange if the limit would be on the import basis of raw material into the EU. This could be a challenge for the future. But for finished products 10 mg/kg should be reasonably achievable. With the exception of microalgal oils.

- **Gerard -** The second point is that currently we have this harmonized action limit of 2 mg/kg for MOAH in the EU, which is executed by the judgement of each individual member state. So, keep in mind that until the new EC limits are implemented, everybody who markets an omega-3 product on the EU market still needs to adhere to the currently applicable much stricter limit. The FAQ document says the following: "*In any case possible transitional measures will not impact on the validity of the Joint statement of 21 April 2022 of the Memebr States regarding the presence of MOAH in food, including food for infants and young children (including the further clarifications of 19 October 2022). This means that regardless of pòssible transition meausres, Member States will still be able to enforce large quantities of MOAH in food on the basis of Article 14 of Regulation (EC) No 178/2002*."

- **Craig Mallon (dsm-firmenich) –** I looked at the draft document with the new limits for marine oils, and the header of the table in there is labeled with "Option 3". That would imply that there are other versions that are also being considered. Have you seen drafts with other options?
- **Gerard** – our interpretation is that option 1 and 2 are versions that the EC considered in January/February earlier this year. We are not aware of several options being tabled right now. Hopefully we will be getting more information during the rest of this year. Also, the EC mentioned in their letter that if there are any new developments that stakeholders will be informed.
- **Craig** – Coming back to the question whether microalgal omega-3 oils would be considered omega-3 oils, I guess it depends on raising the limit because of method interference. Because then I would think that algal oils would not fall in the scope since they don't have the same analytical challenges. Or whether it would be related to compliance. Yes, it is a good question.
- **Gerard** – In practice, our members are all in an individual situation, so it is a little hard to generalize. For example, we have producers of Nannochloropsis oils, which have very complicated matrixes.
- **Craig** – Yes, that is true.
- **Marco Figari Borasino** – Just for clarification – Until 2026 when this new limit of 10 ppm will apply, members of the EU will have to adhere to the 2 ppm limit, and it is up to each state if they enforce it, or not. Right?
- **Gerard** – Correct
- **Arnar** – After 2026 both limits will be applicable?
- **Gerard** – No, in 2026, if the EC enforces the new limits, that will overrule any national legislation of EU Member States on this matter.
- **Ellen Schutt (GOED)** – I just had two comments – one, I just wanted to acknowledge the work that many of you on the Technical Committee did. To help write this letter and to be considered a stakeholder within the EU. The officers on our board of directors wanted to specifically say thank you for your role in helping us to have a voice in this conversation. We really do think it made a difference. So, thank you. The second point is that we are doing a session on MOSH/MOAH at the upcoming IFFO event, which will take place at the end of October in Portugal. So, any of you who are planning to go to that event, could be invited to attend this session. We are planning to have a discussion with different parts of the supply chain on where we are at that point in time, and what we know and what people have learned. The event will be held on Wednesday, October 23, 15.00-17.00 (GOED will inform members soon with additional details).

- **Action item** – Evaluate if GOED should approach the EC to ask if microalgal omega-3 oils can be included together with the marine oil category for the proposed new limits for MOAH (**Gerard**)

All Other Business (Jenna Ritter)

- **MOSH/MOAH - Mineral oil lubricants, summary of input**

  - **Gerard –** Thanks to everyone who sent us information about the lubricants you are using in your operations. Here I show the updated table (link). This information is already quite informative, just to see for what purposes different lubricants are being used. I have included, where available, which lubricants are H1 type, so for "incidental contact" use in plants where food is handled, and supposedly contain < 0.1% MOAH. Of course, everyone should aim that lubricants never get in touch with your ingredient oils or products. Interestingly, some members have measured the MOAH content of their H1-type lubricants and found that not always are these lubricants devoid of MOAH. Some unexpectedly contain quite high MOAH levels. This suggests that one should be cautious in the lubricants that are being used as "incidental contact" lubricants or those that are used for specific purposes. Another interesting observation is that some lubricant producing companies have started to market "MOAH free" lubricants, so already addressing the need by the market for such products to help in meeting European limits.
    If you have any new information about the lubricants you use, please send us, and we keep updating this table. The information is anonymized and is available to everybody.

  - **Action item** –Technical Committee members to send information about the lubricants they use to Gerard (**Technical Committee members**)

- **Kim, South Korea microplastics in omega-3 oil study**

  - **Gerard –** We had heard about work on, and an upcoming publication about, measurement of microplastics in omega-3 oils by a group in South Korea. This has now been published (Kim et al, Foods, 2024 - link). As far as we know this is the first publication about microplastics in omega-3 supplements. I am not too concerned about it, but this is always a hot topic in the news. The researchers took 21 encapsulated fish oil supplements from the South Korean market (no names disclosed) and measured microparticles with a diameter > 5 µm using micro-Raman spectroscopy. They measured an average number of 10,6 ± 8,9 plastic microparticles per gram oil. The main types of plastics were polyethylene and polypropylene terephthalate, which are typical plastic materials used for food containers. As you know, we made an evaluation of the risk for microparticle contamination of ingredient omega-3 oils (link). We concluded that the risk for the presence of microplastics in refined omega-3 oils is very low because refined oils are filtered with screens to remove any particles with a

diameter greater than 1 or 2 µm. The presence of microparticles in encapsulated omega-3 oils suggests that contamination with plastic microparticles could happen during formulation and/or handling of finished products. This is in agreement with the conclusion of this recent publication. We can likely expect additional publications like this one in the future.

- **Arnar –** Do you know if there was any comparison with other types of oils, to understand if this is considered high or low?
- **Gerard –** The study compared microplastic in fish oils with vegetable omega-3 oils. On average the levels in fish oils were somewhat higher. (*The authors state in the Discussion that further study of other functional foods will be required to address human exposure to microparticles and its possible health effects.*)

- **Update on Amazon testing requirements**
  - **Jenna –** As most of you know, Amazon has in recent years had a requirement that those selling dietary supplements, including fish oil, had to provide certificates of analysis for various things from an ISO 17025 accredited laboratory or from a laboratory that is enrolled in specific quality certification programs. Amazon has recently changed the requirements and it is rolling out slowly. So right now, it is not applicable to omega-3 yet, it is only for weight loss, sexual health products and very specific sports nutrition products. Going forward it is anticipated to roll out across the board for dietary supplements. But this new change means that Amazon is no longer accepting CoA's directly from sellers. So, if you have a brand on Amazon, it is likely in the future that you will have to go through NSF to keep your product listed. And while right now it is not applicable to omega-3s, it will come into effect going forward. If you are selling on Amazon, keep an eye on this because from what I understand for the current product to which this is applicable, there is no notice being given before they delist your product. So, please familiarize yourself with the update – they have partnered with NSF. NSF is working with Amazon in a number of ways – one of them is a kind of gap analysis program, another is just reviewing CoA's from certain labs, and the third would be to certify products as NSF. Once you are required to do this, you should be notified in your seller-central portal. But do pay attention – every time you submit a CoA, it is good for 12 months before recertification is required. But it will be required for every product - so if you have eight individual products, different SKU's, it will apply to each of them, so you will have to through a grouping process. I am not sure if anyone on this call would be dealing directly with Amazon, but it will certainly be something that will come up down the road.

- **Technical publications notification**
  - **Jenna –** We will send out the technical publications list with the minutes. There are a couple of recent publications that you will be really interested in.

- **Gerard –** The first is this one by Gorska *et al*, "*Impact of deodorization time and temperature on the removal of different MOAH structures: a lab scale study on spiked coconut oil*", Food Add Contam A, 2024 (link)
- **Jenna –** The one I thought was interesting is one on peroxide Value measurement using a new approach – Wind *et al*, "*Improving the triphenylphosphine / triphenylphosphine oxide (TPP/TPPO)-based method for the absolute and accurate quantification by FTIR-ATR of hydroperoxides in oils or lipid extracts*", Eur J Lipid Sci Technol 2024 2400030 (link). It is an interesting paper. The method may be useful for complicated matrices such as those containing carotenoids and other colored substances.

- **Arnar –** I have one additional topic regarding Proposition 65 in California. There are existing limits for glycidol and MCPD's. What is quite interesting is that processing-induced contaminants can be found in fish oil, and the exposure limits for glycidol are 0.5 µg per day. Generally, I would say that fish oil can contain glycidol in a range of 0.1 to 0.5 µg per gram, and a daily dose of 1 or 2 grams can exceed those limits. It is actually glycidyl esters that we have in oils, not glycidol as such. According to Prop 65 a product should be labeled with a caution is the contaminant is expected to exceed the limit. Do you know if products in the US are labeled with such a Prop 65 label, or in California specifically, with regards to 3-MCPDs or glycidol?
  - **Harry** – I have not heard about this. But that would not mean that there aren't. That limit has been in effect since 2010, I think.
  - **Aranr** – As a precaution, should we label products? It could be risky to have our product in the US market not labeled, if someone is interested in pursuing that according to Prop 65.
  - **Gerard** – I can send out a request to the whole committee to see if anybody has any experience with this labeling requirement.
  - **Claus-Michael** – In the EU there is a general limit for food of 1 ppm for glycidyl-esters.
  - **Arnar** – In California, it is 0.5 µg per day, an intake limit.

- **Action item** – Reach out to technical Committee to determine if anyone has products on the California market and is using a warning label for 3-MCPD or glycidol (**Gerard**)

Presentation: **Prof. Mogens Larsen Andersen** (University of Copenhagen, Denmark) – *"Evaluation of oxygen permeability into encapsulated oils"*

A copy of the presentation will be shared with the committee after the meeting.

Q&A

- **Arnar** – I have one question regarding the application of this method. You are talking about microencapsulation in this presentation, as an example. If one would go about testing fish oil in let's say plastic bottles or blister form, would you fill the bottle with and without nitrogen, you fill with the probe in MCT oil, and can you then evaluate oxygen in the beginning and how oxygen then permeates into the bottle? Is that possible, or would you have to take samples?
- **Mogens –** The sample size in the EPR spectrometer cannot be bigger than 1 cm, and is preferable below 0.5 cm. But then we have other techniques, for example fluorescence-based oxygen probes, that you can get nowadays. These have a huge advantage if you want to measure in closed bottles. So, there you can have a probe sitting inside the bottle, and then with a light excite and collect the emitted fluorescence and get information about oxygen concentrations.
- **Arnar-** That is interesting.

End of meeting.

Summary of Action Items

- **Action item** – Distribute request by Harry Rice & Gaby Cortez to review list of food additives relevant to EPA/DHA omega-3 oils by the Technical Committee (**Gerard & Technical Committee members**)
- **Action item** – Update the Technical Guidance Documents (version Sept 10, 2023) by removing section C-2.2.1 (**Gerard**)
- **Action item** – Compile information about which laboratories can measure organoarsenic species in oils (**Gerard**)
- **Action item** – Evaluate if GOED should approach the EC to ask if microalgal omega-3 oils can be included together with the marine oil category for the proposed new limits for MOAH (**Gerard**)
- **Action item** –Technical Committee members to send information about the lubricants they use to Gerard (**Technical Committee members**)
- **Action item** – Reach out to technical Committee to determine if anyone has products on the California market and is using a warning label for 3-MCPD or glycidol (**Gerard**)

Date of next meeting

- The next Technical Committee meeting will be tentatively scheduled for Thursday, August 22nd, 2024

USEFUL LINKS:

- Useful documents that the committee has discussed can be found in the Technical Committee folder. You can upload any material there yourself as well: https://drive.google.com/drive/folders/0B-5CurmVIvvETm1Wd29xemU5YVU

- Past minutes can be found here:
  2024 - https://drive.google.com/drive/folders/16WcCbtwh_NY09cnx-pEpnANbubBv7Wmo?usp=drive_link
  2023 - https://drive.google.com/drive/folders/1Q_aJTzxZL106KkZJUkgrkLT2MdgDiEXh?usp=share_link
  2022 - https://drive.google.com/drive/folders/1Pt8CJafBCjIYaLZF0ZJ08csPqlzW5XaC?usp=sharing
  2021 - https://drive.google.com/drive/folders/1VGy-t4TuWtDUB30jU98unIxWYzpnZuNj?usp=sharing
  2020 - https://drive.google.com/open?id=1olF0Ab9UeGO_VaQpSshICS3xn0V8IiLK
  2019 - https://drive.google.com/drive/folders/0B0usR2nagMSpSU1aaTR6Ty0yTE0
  2018 - https://drive.google.com/open?id=1lXXmBgN3F9XwZnXKxqq0hwC-oLZl9rc_
  2017 - https://drive.google.com/drive/folders/0B6uJWj5y9FY9NDRRS2lVdUQ1ZWs
  2016 - https://drive.google.com/drive/folders/0B6uJWj5y9FY9UVZpU3NLejBIMEk

- GOED Presentations - GOED Presentations (goedomega3.com)

- GOED Newsletters: If you do not receive newsletters from GOED, please sign up since this is our best way of communicating with members. Here is the link: http://eepurl.com/F-p5