



at SEA

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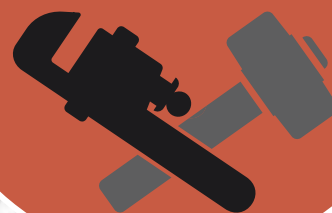


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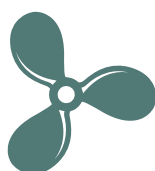
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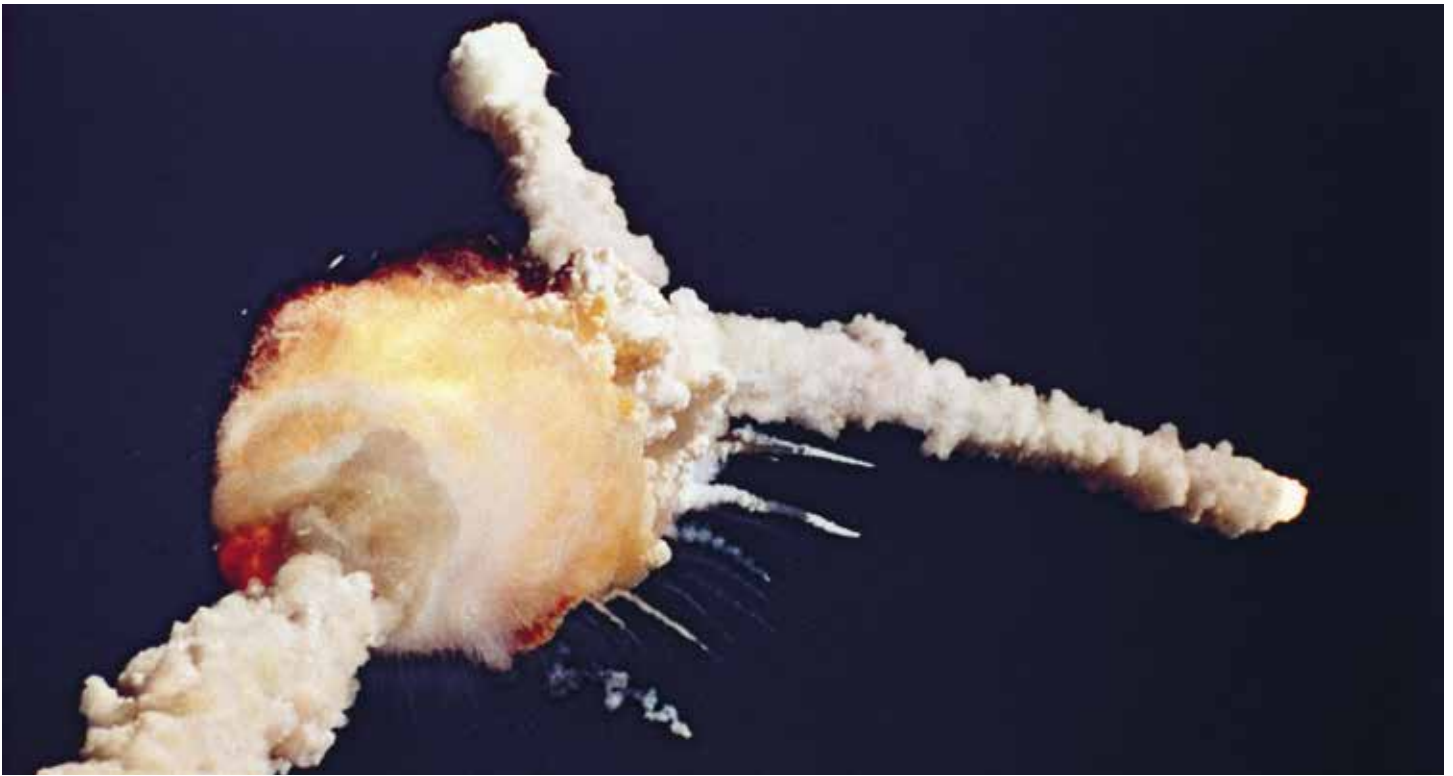
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“ACCIDENTS OCCUR...

...because we are good at what we do”, said Øssur Hilduberg, Head of Danish Maritime Accident Investigation Board (DMAIB), when we interviewed him in the latest episode of Podcast at SEA. Does it sound crazy? If so, you should probably listen to the episode or read the highlights here. Find out what defines a ‘human error’ and where the term safety culture stems from.

By Mads Monrad Møller, consultant at SEA HEALTH & WELFARE

HISTORY OF ACCIDENTS

According to Øssur, the explanation of why accidents occur has gone through many changes over time. If we go back approx. 100 years, people believed that accidents were God's will. The simple explanation of why seafarers were injured, or that ships grounded was merely the work of divine forces. And, therefore, there was no reason to prevent these from happening. In the course of the 1920s, however, we

started working towards a more research based approach to the understanding of accidents. At this time, we give reasons for accidents that did not have anything to do with religion. It is at this point we first meet the term ‘human errors’ as a cause for accidents taking place. As we reach the 1960s, we realize that also machines and technical equipment can have errors. And finally, in the 1980s, we start to look inwards the organisation. We pose

the question: could it be something the company does that causes accidents?

THE MAKING OF ‘SAFETY CULTURE’

The official report of the Chernobyl Disaster in 1986 is first to mention the term ‘safety culture’. Øssur explains that the term since spread like wildfire. The term was used to explain why accidents happen but also why accidents don't happen. About this way of applying a term,

Øssur says “it is in itself very problematic to use a term this way” and elaborates that by doing so ‘we play the man instead of the ball.’ With this approach, we can blame someone, but we will not find out what underlying circumstances causes accidents to happen or not to happen.”

SO WHY DO ACCIDENTS OCCUR TODAY?

Øssur points out in the podcast that within the field of accident- and safety theory we have increasingly moved away from the term ‘safety culture’ and says “...instead, today, we begin to understand that large, complex organisations and systems do not necessarily fail because something is wrong. As in things have errors. The accidents occur because we are good at what we do.” An example of this is the spacecraft ‘Challenger’ from 1983. When the first crafts were sent off to space, it was considered as something exploratory. In the years that followed, the perception of the activities changed. We began to perceive space voyages as commercial. NASA worked on optimising production and maintenance of spacecraft which resulted in more fragile constructions. It ended fatally with the explosion on the 28th of January in 1986 where seven astronauts died. “They optimised and streamlined the road to an accident. What was, the day before, considered a success was the next day considered an accident.”

STOP THE FOCUS ON HUMAN ERRORS

You don’t have to search for long for a cause of accidents before you encounter the statement “80% of all accidents are due to human errors”. A myth that Øssur dismisses: “a human error is not defined. We cannot point out what an error is. When the Investigation Board investigates accidents, they find out that the actions we say are errors are in fact successful actions in 99,9% of the cases. What separates a successful operation from an accident, is that the action that normally leads to success in very rare cases leads to an error. Typically, this is because external circumstances surrounding the operation has changed without the people around it being aware of it.”

When investigating accidents today, it is often concluded that the human error was the cause of the accident. But a human error cannot be a conclusion to an accident investigation. The human error is the starting point for an accident investigation. It cannot be the end. What, on the other hand, must be done during an accident investigation is to ask the questions: “Why did the human error happen? What was the human error? And then the investigation can begin”, says Øssur.

The way in which DMAIB conducts an accident investigation is first to find out how people usually work on the days when there are no accidents. And then they investigate how it could go wrong in the



Øssur Hilduberg, Head of Danish Maritime Investigation Board is guest in the Podcast at SEA studio.

particular situation. And in this way, you get to find the most interesting part which is “days with accidents do not differ from normal days to any great extend”. What DMAIB finds out is that accidents often stem from normal behaviour.

“In that context, it is difficult to talk about human error. Understood in a way that accidents are inherently in a specific person who did a specific action. Because had there been another person on that day, in that situation, doing the same job, the accidents would still have happened”, Øssur sums up.

It is therefore difficult to place responsibility for an accident because it can happen to anyone.

Listen to Podcast at SEA

Would you like to know more about accidents? Listen to the interview with Øssur Hilduberg, dual officer, and part of DMAIB for more than eight years and who has investigated a long list of accidents? Find answers to:

- How does DMAIB investigate accidents?
- What is the point of procedures?
- What is the difference between Greenlanders and Danes when speaking of accidents?
- And of course, what Øssur suggests will create a good work life on board.

This interview is in Danish.

The Danish Maritime Accident Investigation Board

The Danish Maritime Accident Investigation Board is an independent unit under the Ministry of Business and Growth.

DMAIB investigate maritime accidents and accidents to seafarers on Danish and Greenlandic merchant ships as well as accidents on foreign merchant ships in Danish and Greenlandic waters.





Listen in when podcast host Mads Monrad Møller invites guests to the studio and presents our listener for good ideas to health, safety and welfare at sea. You will hear tips for the manager, him or her, working with the working environment and welfare, and for the rest of the crew.



What is welfare for seafarers in 2018?

How can we make life better for seafarers? We interviewed Jason Zuidema, General Secretary of the International Christian Maritime Association and Executive Director at the North American Maritime Ministry Association. He knows everything about the welfare of seafarers and tells everything we need to know about welfare organisations' opportunities and challenges in 2018.



Leading Diversity

So, everyone probably knows that when you work in shipping, you get to meet and work with people from all over the world – and with very different backgrounds. It can be awesome, and it can be quite the challenge, too. So how do we manage and work with a diverse group of people without stepping on each other's toes or miss out on important information? We interview Vivek Menon, Head of Department in SEA HEALTH & WELFARE. He will fill you in on the five-finger-model that may come in handy for you that work as a manager.

Do you want to listen, too? Find 'Podcast at SEA' where you listen to podcasts or on www.shw.dk/podcast-at-sea



During a stay in drydock, the ABS surveyor asked to open the water ballast vent for inspections. The reason for the inspection was to see if the floater is free and in good condition. After a month of sailing after drydock, I observed that one of the vents was left open. I immediately informed the chief officer and all the ballast vent head was then checked and we found more that were left open.



Show us and all your colleagues how you work with safety at sea.

#SAFETYSELFIE2018

Remember, you can participate in our "Safety Selfie"-competition and win an iPad. It's pretty simple. All you need is a camera to take a picture of yourself in a situation where you are creative and innovative about safety on board.

Here, you can see how other seafarers work with safety. Do you want to join in? Upload your selfie with a short text explaining the picture and upload on Facebook or Instagram with #safetyselfie2018 or send to atsea@shw.dk before 31.12.2018.





FOOTBALL IN SVENDBORG - READY, SET, GO!



**SHOES ARE TIED. TANK IS FULL OF COKE.
LET THE GAMES BEGIN!**



**9 TEAMS FROM HF-SØFART, SVENDBORG SØFARTSSKOLE
AND SIMAC PLAYED IN TOTAL 38 MATCHES.**

FOOTBALL TOURNAMENT IN SVENDBORG

No wind, cold nor rain could stop Svendborg's youth from joining this fall's football tournament. That became clear when SEA HEALTH & WELFARE invited maritime schools for a match on the green fields on Hellegårdsvej in Svendborg.

By Dyveke Nielsen, communications officer and Misha Jensen, consultant at SEA HEALTH & WELFARE

This afternoon, all players were on fire with nine teams from HF-Søfart, Svendborg Søfartsskole and SIMAC who together played a total of 38 matches. The final went into extra time and was settled in a

penalty shootout where SIMAC's team BS4 won over HFSØ2016 with a 2-1 win. So, for the second year in a row, SIMAC could take home the gold medal. HFSØ2016 from Svendborg Søfartsskole

took home the silver medal and team 'Høje Tindinger' from SIMAC won bronze with a 1-0 win against the OS from Svendborg.



**ADAM, THE TOURNAMENT'S FIRST GOAL SCORER
AND PROBABLY THE PROUDEST, TOO!**



SOME PLAY TO WIN...



**...LIKE MASLAX HERE WHO SCORES HIS
4TH GOAL IN THE TOURNAMENT...**



...OTHERS GET A NEW HAIR STYLE...



TORÉ AND MARTIN FROM TEAM 'VÅRJE TINDINGER!' (RECEDING HAIRLINES) DON'T NEED HAIR BANDS FOR TODAY'S HAIRDO...



UM, SO HOW MANY RED CARDS DID YOU HAND OUT TODAY?
OH, ABOUT 60-70 I THINK...



NEXT STOP: CHAMPIONS LEAGUE!



WE'RE NOT QUITE SURE WHO'S THE MOST EXCITED ABOUT BEING HERE TODAY, LARS OR ZITHA?



WE CAN ALWAYS BECOME SUPER MODELS...



CECILIE, 20 YRS: I JOIN TODAY'S MATCH BECAUSE OF THE FUN OF IT. IM NOT REALLY GREAT IN PLAYING FOOTBALL...



50, JEPPE, MAHMOUD AND RABIE DECIDED TO DRESS THE SAME TODAY.

Every year, in May and September, SEA HEALTH & WELFARE invites maritime schools and organisations to a football tournament in Svendborg. It is for free, and you can borrow football gear to play in. See more and sign up on www.shw.dk

Bike at SEA

ESVAGT NJORD 1031 point
ORANESS 798 point
ESVAGT CHARLIE 653 point

Row at SEA

ESVAGT COBRA 232 point
ESVAGT CORNELIA 203 point
ESVAGT KAPPA 157 point

Run at SEA

ESVAGT DON 373 point
ESVAGT CORNELIA 316 point
ESVAGT BERGEN 291 point

Cross at SEA

ORATANK 243 point
MAERSK EVORA 112 point
MAERSK HAMBORG 80 point

Lift at SEA

MAERSK EVORA 98 point
ESVAGT FROUDE 64 point
ESVAGT BERGEN 63 point

We have created the point system with an index number so that ships with few crew members can join in, too. So, it is not about how many people work out. It is how much you work out. To get the score fresh of the chart go to www.shw.dk/motions-konkurrence

This is how active
you have been so far in 2018.
Well done, people!



Fit**4**SEA
score board

WE ARE RECONSTRUCTING

Fit4SEA

The amendments
to the Fit4SEA
competition
will begin 1st of
January 2019.



HOW DO I GET STARTED?

You can read more about Fit4SEA and find a registration form at www.shw.dk/motionkonkurrence. Results must be sent to Fit4SEA@shw.dk. On our website under "table", you can check that your results are registered. Please notice that when you submit results to us, you also agree that your name may be published on our social media, website, etc.

Ahoy Sailor! You've got fitness news!
We have listened to your wishes for more
quality instead of quantity.

NEW WORKOUT SHIRT

In 2019, you can work your way to a cool quality t-shirt in sweat transporting fabric instead of cotton. It comes in all sizes - for both women and men. The requirement to achieve the shirt is the same as always - 100 km in running, cycling, cross training, rowing or 4 hours of weight lifting. If you achieve all requirements in all disciplines, you will receive a prize!

WHY SHOULD I CONTINUE WORKING OUT IN ALL DISCIPLINES?

Or continuing registering? Because by the end of the year we will draw lots between the top 5 in the individual competitions in each discipline. So there are a lot of good reasons to get going.

WIN AN IPAD ALREADY IN MARCH!

Start your New Year resolution now. We will draw lots in each discipline every three months, and the winners will receive awesome prizes. Ship's competition is still on throughout the year and the ship that has worked out the most will still receive a subscription to a fitness and health magazine. And don't forget, the workout you do at home also counts in Fit4SEA.



SPORTS OFFICER OF THE YEAR

On board ESVAGT FROUDE, the workout is going really well. Especially thanks to 'sports officer' Peter Petersen. This spring, we received this story:



"Everyone's sports officer here on board, Peter Petersen, is not only excellent at collecting our Fit4SEA sports results, showing how little or how much we've sweated. He is also a pioneer in the gym, and to the extent that he became no. 1 in the Fit4SEA competition in the discipline of weight lifting in 2017. We would like to honor him for this great achievement. Could you perhaps make him an official diploma that we can place on the wall?"

Bests regards Crew on FROUDE "

We love receiving stories about awesome colleagues who make a difference to the well-being and working environment at sea. And of course, we would like to support these initiatives. We have therefore made a nice diploma with Peter's name, a mug and a special T-shirt – just for him.

Do you also have a awesome colleague, you would like to say 'well done' to? Send us a mail with your story to atsea@shw.dk and we'll let him or her know.

To Peter from his colleagues at ESVAGT FROUDE:

"Thanks for the countless hours of reporting of exercise hours, gym room maintenance, darts and table football tournaments and managing the slop chest."



DO YOU WANT TO ENJOY A HOLIDAY IN DENMARK?

Did you know that as a seafarer you can enjoy a holiday for a reduced price in one of our three beautiful holiday homes in Denmark?

The seafarer, Dennis, his wife and their two children have enjoyed a holiday in Skallerup Klit in Jutland and they say that the best part of the holiday is the house and its surroundings.

The family walked along the beach every day, used Skallerup Resort for pool and playland, and was in Hjørring City on a trip.

The family recommends the nature, Skallerup Klit, Hjørring city and shopping centre.

YOU CAN ALSO RENT A HOLIDAY HOME

If you have worked on a Danish flag ship for at least six months within the last two years. We have two holiday homes in Jutland and an apartment in Bornholm.

Read more about the holiday homes on our website www.shw.com, and write Amanda on aga@shw.dk if you are interested in renting a holiday home. First come first served!





CHEF GRANDAD SERVES GOLDEN NUGGETS

Though a 28-days journey at sea is a long time you can still make the salad bar look delicious with the hard, but not boring, vegetables.

By Anders Hjarso, chef grandad on VUOKSI MAERSK

During a journey from Singapore to Tema in Ghana approaching day 28 the fridge is close to empty. Only a few hard vegetables are left. All the soft ones are long gone.

However, the hard vegetables don't have to be a boring side dish. They can easily be turned into something delicious on the salad bar that otherwise could look a bit sad by now. Besides I always keep lentils, beans and chickpeas on the salad bar. They are healthy and fill you up.



Red cabbage salad

Chop the red cabbage finely and marinate in apple vinegar and olive oil. Mix with walnuts.

White cabbage salad

Chop the red cabbage finely and marinate in oil, vinegar and Lingham's Hot Chilli Sauce.

Oven-baked carrots and pumpkin with chilli and lemon

The vegetable of the day was oven-baked carrots and pumpkin with chilli and lemon. Peel the carrots and the pumpkin and slice into finger-sized pieces. Pour over some olive oil. Add salt and pepper, chilli and slices of lemon. Bake everything in the oven for 30 minutes and 150 degrees. Make sure that the heat is not too high. Pumpkins and carrots are very sweet and easily get burned. The vegetables can be served in the salad bar, chopped in smaller pieces.

FOLLOW CHEF GRANDAD ON INSTAGRAM

Would you like to know more about the life as a chef at sea? Follow Anders on Instagram as Kogemand Bedstefar. Here, you can find inspiration for healthy, different, delicious dishes. Anders also offers suggestions to a better social life at sea.



The welfare station in Brielle welcomes **A NEW FACE**

Her name is Belinda. She is both Norwegian and Dutch, and she speaks nothing less than six languages. Belinda can't wait to accommodate 'a home away from home' for the seafarers visiting Brielle, a lovely town in the middle of the port of Rotterdam.

By Dyveke Nielsen, communication officer at SEA HEALTH & WELFARE

"You can say that from an early beginning I was marked with the life of seafarers. I'm named after the ship BELINDA, a beautiful, white-coloured bulk ship owned by the Norwegian shipping company A.H. Mathiesen. The ship was spotted by my father Lars Gustav Hoff who at the time in 1965 was sailing as second mate on board the vessel M/S JARILLA. In 1967, my father signed off for good and opened one of the first maritime pubs in Brielle called Nordkapp. After meeting my mother Maryca they moved to the main street in Brielle, called Voorstraat, and in 1969 they opened their pub De Roef which means ship's mess in Dutch. Many seafarers have come here for a nice meal, relaxation from the busy life at sea and maybe a chat with the locals and the Hoff family behind the bar.

I can remember that when I was 17, I witnessed the arrival of the world's biggest bulk ship BERGE STAHL in the Port of Rotterdam. The ship's officers & crew came to visit my father's pub, and it turned out that both Norwegian captains were from the same region Nordland in Norway as where my father originates from. What a small world! My family and I became good friends with the Norwegian and Indian officers and crew, and during the last years, Captains Darbari & Sharma and their crew welcomed us kindly on board the huge ship. And each visit on board BERGE STAHL, with her 342 m length and 63.5 m width, remains impressive even after 25 years.

The life at sea amazed me, and I started to work for North Sea Ferries (now P&O Ferries) in Holland. First ashore and a little later

on, I began working as a Chief Purser onboard the cruise ships SEAWIND CROWN and BRILLIANCE OF THE SEAS.

It was amazing working with so many different nationalities. On board SEAWIND CROWN, we were 400 crew members from 43 countries and 800 passengers from the whole world. It was so 'skikkelig' (great in Norwegian) a ship!

I look very much forward to applying my experiences with the life at sea in the welfare club in Brielle. Seafarers can expect guided tours to experience some diversion from the sometimes tough life at sea. The city is full of lovely shops, cosy cafés, picturesque monumental buildings, an iconic windmill and church, a museum, art galleries, supermarkets and delicious restaurants. The local people are very friendly, and they are used to seafarers from all over the world. And of course, there will also be the option of simply hanging out in our cosy club, using the computer, relaxing and maybe play some cards, darts and have fun."

Belinda is replacing welfare consultant, Jacob Christensen, who has returned to Denmark with his wife Tonje, after five years of service in Rotterdam. Jacob will continue his work with seafarer's welfare from the SEA HEALTH & WELFARE house in Copenhagen focusing on seafarers' health.

Would you like to get in contact with Belinda, you can contact the welfare club on telephone no. (+31) (0)62 04 06 860 or mail to rotterdam@shw.dk or visit Vischstraat 19 3231 AV Brielle in Holland.



Belinda Hoff is our new welfare consultant in Rotterdam.

The bulk vessel, BELINDA, here pictured in 1965, which Belinda Hoff is named after.



Now you can meet Belinda Hoff in Rotterdam. She is the new consultant in the welfare club in Brielle.



VOX POP

The term vox pop is derived from the Latin vox populi, that means the voice of the people and that is exactly what we try to do in the vox pop: Give the seafarers time to talk by interviewing a number of everyday people about their opinion or knowledge of a particular topic.

WHAT DO YOU DO WHEN YOU FIND YOUR COLLEAGUE IN AN UNSAFE SITUATION?

Our new welfare consultant in Brielle, Belinda Hoff, visited MANILLA MAERSK to ask crew members about safety on board.

This is what they answered:

By Belinda Hoff, welfare consultant at SEA HEALTH & WELFARE



ROMAN SALNY,
CHIEF ENGINEER AND FROM RUSSIA

"I will get my colleague out of that unsafe situation immediately according to the procedures I know by heart! I want to save his or her life and my own life!"



SUMAN SHUBHANKAR,
STOCK TEAM LEADER AND
FROM INDIA

"I take him or her immediately away from the unsafe situation and make sure both my colleague and me are in a safe situation! Of course, I offer my help and assistance in all unsafe situations in order to save a life!"

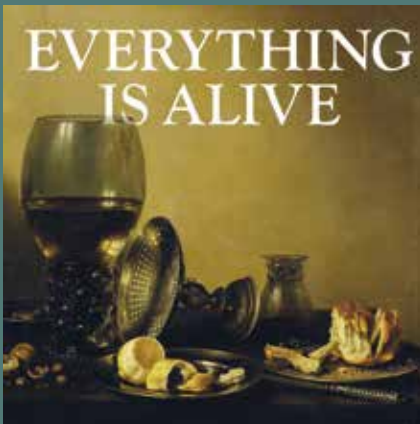


SÓLVA T. RÚNADÓTTIR,
3RD OFFICER AND FROM
FAROE ISLANDS

"I take him or her aside and make sure we are both safe. Depending what the situation is, I would also explain why I did this and how to prevent it from happening again".



Remember that podcasts are not only documentary or true crime series. You can also find many real good podcasts about any kind of sport, you might like. Fx. World Champion Boxing which is your source for the latest results in boxing. The podcast airs every weekend and apart from bringing the latest news from the boxing world it also brings you the greatest fights in boxing history and "greatest performances". Several times during the podcast series the podcast reviews fights by Manny Pacquiao.



Everything is alive is a real "time off" podcast. It is silly, funny, sweet, strange and with fun facts that you could never imagine. In the podcast the host interviews different items like a pillow, a can of cola or a lamp post. The item talks about its life, feelings and thoughts, and the host investigates a fun fact about the item. For instance, in the episode with the lamp post she tells us that she loves to watch "Singing in the Rain", thinking that the lamp post is the real main character. Afterwards the host investigates what happened with the lamp post that Gene Kelly danced around. Try the podcast if you need a small break and like to see the world from a different perspective.



Intrigue: The Ratline from the BBC tells the fascinating story about the unknown senior Nazi, baron Otto von Wachter who avoided being brought to justice after The Second World War by escaping Europe through the Ratline in 1945 – the top Nazi escape route out of Europe. Lawyer Philippe Sands investigates the mysterious disappearance of Wachter, and among many people he visits Wachter's son in his home where he goes through the letters and other belongings of the family. Sands has a more personal interest in the story than just wanting to know the truth about the disappearance of Wachter since the whole family of his grandfather were killed by the Nazis.

- News from the library -

BIG THANKS thanks to all you seafarers who help bring books for our partners around the world!

The Maritime Library has several partners in ports around the world where you can get fresh books and newspapers. SEA HEALTH & WELFARE has two stations where you can get our services, and other than that we work together with the Danish Seamen's Churches around the world and the seaman services in Denmark.

We are often in contact with the employees around the world to ensure that they always have good books for you, and when we

send books to a station or church we do it with the help from you since we always send the books by ship.

Therefore, **BIG THANKS TO ALL THE SEAFARERS** who have helped taking books to and from our stations and the churches. At the library we really appreciate your help, which means that we can save money on freight and spend more money on books!

If you need new books or would like to read a fresh newspaper, you can find us in the ports on the next page and if you want to be sure to get a visit, please contact the service before arrival.



● **DENMARK - COPENHAGEN**

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SAFE HANDLING OF CHEMICALS

EXPOSURE SCENARIOS

By Anne Ries, consultant at SEA HEALTH & WELFARE

HAVE YOU RECEIVED AN EXPOSURE SCENARIO (ES) FOR A CHEMICAL YOU USE ON BOARD?

The exposure scenarios must cover all the uses that the chemical substances or the mixtures contain. Therefore, you will receive more exposure scenarios and you will have to choose the ES that describes your use. It would be a good idea if only the relevant ES is submitted to the SEA HEALTH & WELFARE chemical database. We will store the data for 10 years. On the next page you will find an ES poster. Use this to find a way to the ES that describes your use. (You can also order a Danish version at info@shw.dk). You must be able to demonstrate that the exposure levels in your workplace is identical to or lower than what is described in the ES.

HAS THE SUPPLIER NOT DESCRIBED YOUR CHEMICAL USE?

There may be several reasons why the supplier has not described the use you have. There may be a lack of knowledge about all the uses of the substance, but it may also be that the your use cannot be supported by the supplier because it is not safe. You may then need to find an alternative and less dangerous substance.

WHAT IS THE CORRELATION BETWEEN ES, THE WORKPLACE INSTRUCTION AND THE CHEMICAL PART OF THE RISK ASSESSMENT?

There is a close correlation between the information provided by ES and workplace instruction. But, the purposes are slightly different.

In the ES, it must be stated the conditions under which the work can be conducted safely. The ES must once and for all be checked either on board or by a person in

the shipping company who is aware of how the work is done.

The workplace instruction is supplemented with ship-related information on board. The person who performs the work receives a 2-page description on the hazards of the product (skin and/or inhalation hazard) and what diseases it can cause. In addition, the precautions to be applied are described (ventilation and PPE). The latter must of course be the same as those of the ES.

The chemical section of the risk assessment contains 4 steps of which steps 1 and 2 (mapping and assessment) are covered by the information in ES, while action plans and instructions may be needed. The instruction is also for the person who performs the work. There must also be an ongoing evaluation of whether it works. In the risk assessment, there will also be other relevant risks (accidents, ergonomics, noise, etc.)



The exposure scenarios must cover all the uses that the chemical substances or the mixtures contain. Therefore, you will receive more exposure scenarios and you will have to choose the ES that describes your use.

THE CHEMICAL DATABASE

Today we have the following products with ES in the Chemicals Database. Please

check if one or more of these products are available on the shipping company's positive list or if you use it on board. If

yes, check if your application has been described by the supplier, and if you thereby have a safe use.

PRODUCT NUMBER	PRODUCT NAME	PRODUCER/SUPPLIER
14164	Soda lye 50 %	Helm Scandinavia A/S
14856	Hydrogen peroxide 35%	Helm Scandinavia A/S
15094	Citric Acid Anhydrous	Jungbunzlauer Austria AG
15367	Sulfamic acid	Brenntag Nordic
15373	Sodium	Brenntag Nordic
15545	Marine gasoil Dyed 0,05%S	A/S Dansk Shell



SEA HEALTH
& WELFARE

EXPOSURE SCENARIOS (ES)



SAFE HANDLING OF CHEMICALS



OBLIGATIONS FOR THOSE WHO USE CHEMICALS

1

Access to
safety data
sheets

2

Exposure scenarios must
correspond with your use
of the chemicals

3

Information about
the chemicals must
be saved for 10 years

1

One chemical
can have many uses...



... and
many exposure
scenarios



Choose the ES that
corresponds to your
usage



CHECK IF YOUR USE OF THE CHEMICAL IS SAFE

2

Is your application sector entered in the heading?

Are product category and process category correct?

ES 6



3

Check that your use of chemical and preventive measures correspond with what is described in the selected ES.



What concentration of the substance is used?



For how long are you exposed to it?



What ventilation is used?



What methods are used? (ex. enclosed system, spray, heating)



What items of personal protective equipment are used?

4

YOUR EXPOSURE LEVELS MUST BE LOWER THAN/EQUAL TO WHAT IS DESCRIBED IN THE ES

If your use of the chemical is not described, you **must** notify the supplier within **12** months.

If the supplier's annual tonnage of a classified substance is 10 tonnes or more, it **must** be accompanied by an ES with a safety data sheet.



The exposure scenario describes under which circumstances work may proceed safely.



The workplace instruction is supplemented by relevant information at the workplace. The person who is to perform the work is given a description of how the product is dangerous, the illnesses it can cause and the procedures that must be followed.



In addition to identification and evaluation (as in ES), the risk assessment also includes, if necessary, an action plan and instructions, and an evaluation of the chemicals used in the task. The risk assessment must also include information about other risks (ex. accidents, ergonomics, noise, etc.).