


Chlor-alkali industry review **2019-2020**

chlor euro 17.

A sector group of Cefic 



**GEARING UP TO
LAUNCH OUR
EUROPEAN CHLOR-
ALKALI STRATEGY
FOR 2050...**

Note: we have revamped this year's Industry Review to reflect our evolving priorities. This includes marking the seven key parameters reported in our Sustainability Programme since 2001 with an  icon so they can be compared with previous editions. Under the EU's new Green Deal, our commitment to sustainability remains as important as ever.

However, this year's contribution from our members (to the 2019 Euro Chlor Sustainability Questionnaire for these seven key parameters) was lower than previous years (covering 88% of Euro Chlor member capacity from 27 companies at 47 sites as of end-July 2020). This may be due to the COVID-19 crisis. The Euro Chlor secretariat will continue its efforts to improve the participation rate and any extra data received will be updated dynamically on <https://chlorineindustryreview.com>.



The full version of this report is available from:

<https://chlorineindustryreview.com>



Read more inside about the 2019-2020 highlights for Euro Chlor's key topics.

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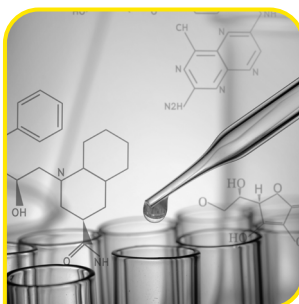
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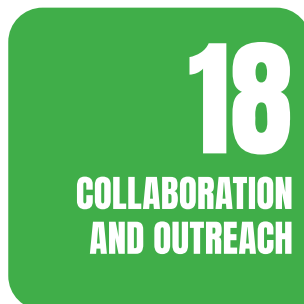
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UNDERPINNING THE GREEN DEAL...

The past year has been all about new beginnings and adapting to significant change.

We have European institutions whose priorities are shaped by citizens' desire for a 'greener' Europe. From this, we have seen the EU's 'Green Deal' that covers everything from energy policy, climate neutrality, circular economy, zero pollution and many other elements of relevance to our sector.

With this year's far-reaching COVID-19 crisis, the Green Deal has now evolved into a 'Green Recovery plan' and this will impact the entire chemical industry in the coming years. We have pre-empted the Green Deal with our new Mid-Century Strategy for a Sustainable Chlor-Alkali Industry (MCS*), and we will further respond together with Cefic and other key players.

COVID-19 also introduced new challenges, bringing new ways of living and working as the world adapts to its impact. I am personally very proud of how our membership stepped up during the crisis, donating chlor-alkali based disinfectants, protective equipment and resources to help fight the virus. This reminded everyone just how crucial our products are for society. I am also proud of my team, who courageously continued working from home and found ways to either postpone live events, or turn them into successful virtual meetings. We have now all seen each other's home offices, living rooms and kitchens and the moral support we gave each other has created bonds that will never be broken.

I hope you enjoy reading this report of our activities from the past year (September 2019-August 2020). To ensure that we remain a safe, competitive and green part of Europe's future, we are all enthusiastic about our new MCS. Even in these unprecedented times, I know for sure that we are up to the challenge and have the right tools in place to tackle it.



MARLEEN PAUWELS

Managing Director



*Read more in our sister publication on the MCS.



<https://www.eurochlor.org/mcs>

...WITH A NEW EUROPEAN CHLOR-ALKALI STRATEGY FOR 2050

Over the past two years as Euro Chlor Chairman, I have worked with our members to ensure that the Euro Chlor ethos of a safe, sustainable and successful industry for Europe was maintained. However, as the late Lauren Bacall once noted, 'standing still is the fastest way of moving backwards in a rapidly changing world'. We need to keep moving forwards to ensure that our sector remains a valued part of Europe's daily life.

As such, we are proud to present the Euro Chlor MCS, which gives us a direction that will ensure that a safe, competitive and green European chlor-alkali industry is here for the benefit of Europe in 2050. Building on the Cefic Mid-Century Vision (MCV), my speech from 2018, and the work of Roland Berger, our new strategy helps to plot a course for European chlor-alkali over the next three decades.

The MCS is made up of a new Vision, Mission and has four key priority elements: Euro Chlor as a Safety Leader, Competitive Supplier, Circularity Champion and Climate Neutral Player. Within these priorities are individual activities that will be addressed in the coming years to help us thrive. These will be expanded on via the various Euro Chlor Working Groups and Committees.

Whilst we do not imply that we have all the answers, we want to be able to play our part in a 'greener' future for Europe and in contributing to a better world. The work will also require the continued commitment and efforts of our members. I know we can rely on them, and on our new Chairman (Wouter Bleukx, Inovyn), to achieve this. Our future is in safe hands.



JÜRGEN BAUNE

Chairman of the Management Committee



Thanks to Jürgen for his efforts in initiating the Euro Chlor MCS. Marleen is right, we are in challenging times. However, I am eager to start work on a strategy that not only defines what our industry could look like in 2050, but also outlines what is needed to get there. I look forward to working with the secretariat to continuously improve Euro Chlor's functioning and with our members to create this even safer, more competitive and greener chlor-alkali industry for Europe.



WOUTER BLEUKX

Vice-Chairman of the Management Committee





PROCESS INCIDENTS AND REPORTING

Safety will remain Euro Chlor’s top priority in the coming years.

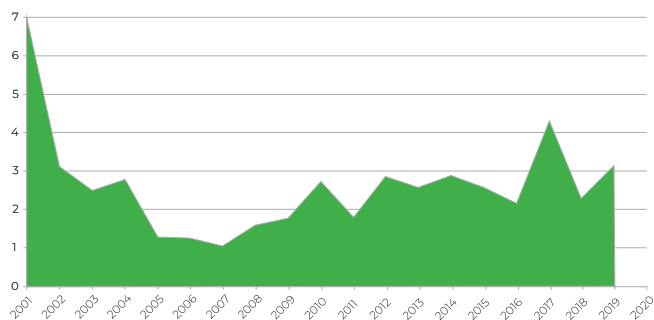
In 2019, the process incidents and losses amounted to 3.15 incidents per million tonnes of chlorine production (up from 2.30 in 2018). This translates to 28 process incidents in absolute numbers (reported via the Sustainability Questionnaire).

In addition to the increase in process incidents and losses, we see a decrease in incident reporting. None of these figures are alarming, due to the fact that the level of process incidents has stabilised over recent years following the improvements made during the first years of the Sustainability Programme.

Nevertheless, these latest developments do not meet our goal of continuous improvement with a zero vision. Therefore, both the Euro Chlor secretariat and membership will work hard towards a further decrease in incidents and an increase in reporting.

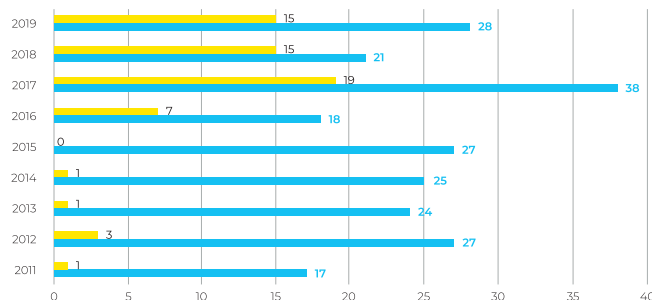
Process incidents and losses

Number per million tonnes of chlorine produced



Incident reporting

 Number of incident reports  Number of process incidents



“

Safety stays at the top of our agenda as reflected in our new Mid-Century Strategy. It is our goal to become a Safety Leader in the chemical industries.

”

OCCUPATIONAL SAFETY

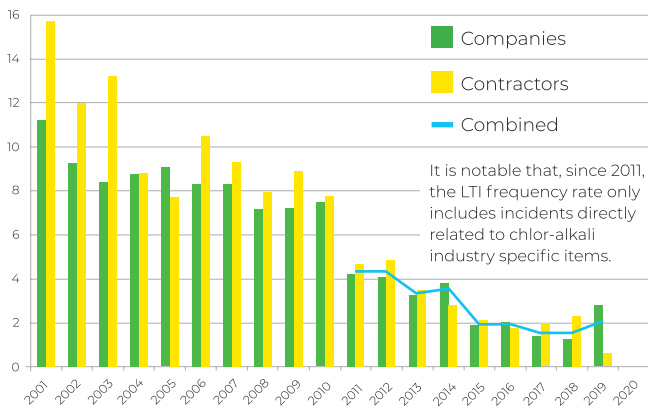
Lost Time Injuries (LTIs) for member company staff increased to 2.80 per million working hours in 2019 from 1.26 in 2018. On the other hand, the contractor LTI numbers showed an improvement by decreasing from 2.33 to 0.59 per million working hours.

To make the figures more comparable, this year we have also looked at the total number of LTIs (combined for staff and contractors), which shows an overall rise in 2019 compared to 2018. Investigations are ongoing into how to return to the positive trend we saw during previous decades and to continue improving.

To assist our members in their efforts, Euro Chlor's Safety Initiative includes the continued development of its project with the University of Delft (NL) for an interactive 'game' as a process safety learning tool in the chlor-alkali plant. Testing of the prototype is foreseen in the autumn of 2020.

Chlor-alkali LTI frequency rate

Number of LTI incidents per million working hours



SAFETY

TON MANDERS

Technical and Safety Director

WORKERS' HEALTH: EMF, STRESS-BURNOUT

Euro Chlor's Health Working Group (HWG) has delivered new training videos for its members in six languages on electromagnetic fields (EMFs). The videos will enhance the previously launched posters and training presentations.

In addition, the group is finalising training material on how to identify and protect people from stress and burnout. Whilst not unique to chlor-alkali production, this advice is designed to help protect people from this ever-increasing issue.



Increase in total number of LTIs (members of staff and contractors combined).



Increase in the number of process incidents and losses since last year.



Slight decrease in the coverage rate of incident reports.



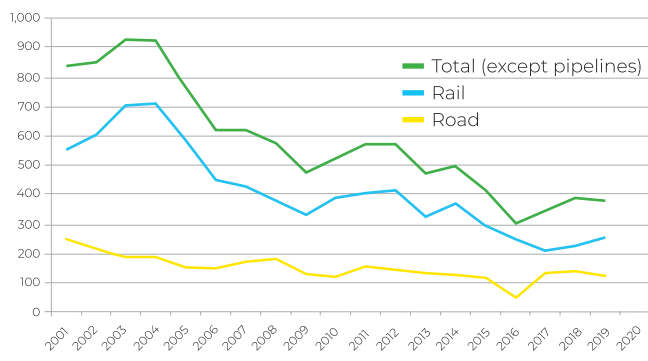
TRANSPORTATION

On transportation, the total amount of chlorine carried via road or rail remained stable in 2019 compared to 2018. It represents around 4.3% of overall chlorine production. We are happy to mention that, as in previous years, no (chlorine) transport incidents were reported in 2019.

Euro Chlor members have expressed a need to focus more on improving the transport safety of all chlor-alkali related chemicals, not just chlorine. This has led to a safety commitment on the safe loading and unloading of chlorine, caustic soda, caustic potash, hydrochloric acid, sodium hypochlorite and sulfuric acid. This commitment contains a set of rules outlining how our members can enhance the safe loading and unloading of these chemicals at their own sites, customers and transport companies.

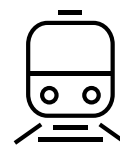
Chlorine transported outside industrial sites

Transported amount in 1,000 tonnes of Cl₂



SAFETY COMMUNICATION

Other Euro Chlor Safety Initiative work over the past year included the revamping of our quarterly safety newsletter and the updates of several recommendations.



No change in the amount of chlorine transported from production sites.



SAFETY

Read more details at:

<https://chlorineindustryreview.com/safety>

“ Euro Chlor members have adapted to the COVID-19 crisis over the past year whilst simultaneously adopting new sustainability measures, showing our commitment to remaining a vital part of Europe in 2050. ”

MEMBER INVESTMENTS CONTINUED DESPITE TURBULENCE AND NEW PARTNERS JOINED

Several significant investments were completed by members during 2019/2020 along the entire chlor-alkali value chain. In addition, the Euro Chlor family expanded further with new partners joining. These are reported on the Euro Chlor website at <https://www.eurochlor.org/news-events/member-news>.



3 new partners
joined in the last
12 months.



COMPETITIVENESS

JÜRGEN BAUNE

Chairman of the
Management Committee

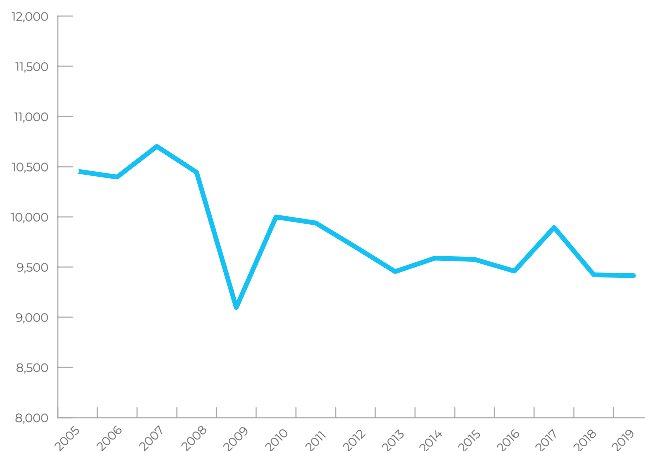
CHLORINE PRODUCTION 2019

According to Cefic figures, 9,416 kilotonnes of chlorine were produced in 2019, which is almost equal to the 2018 production level. Meanwhile, overall production in the EU chemical sector decreased by 1.1% in 2019, which means that chlorine production performed better.

However, the capacity expansions implemented over the last year (162 kilotonnes or 1.4%) did not materialise, which led to a drop in the utilisation rate from 82.3% in 2018 to 81.0% in 2019.

Chlorine production level

In kilotonnes per year



83.3%



of European chlor-alkali uses membrane-based production technology.

COMPETITIVENESS

Read more details at:

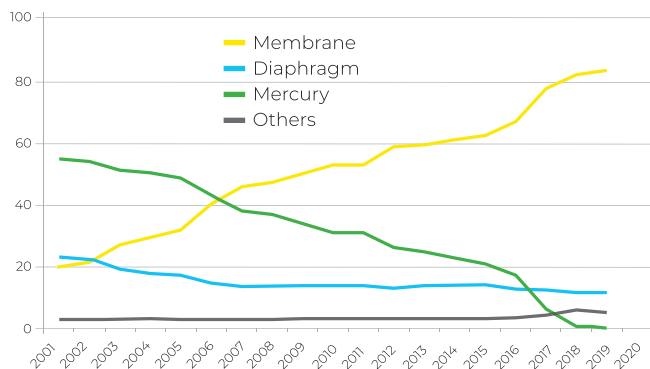
<https://chlorineindustryreview.com/competitiveness>

MANUFACTURING TECHNOLOGY

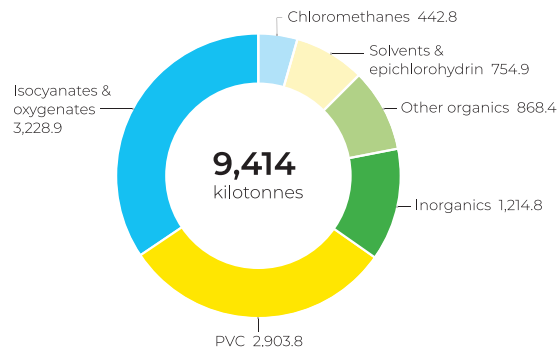
Membrane is the dominant technology to produce chlor-alkali in Europe, with 83.3% of the installed capacity in Europe being based on this. Diaphragm technology, meanwhile, represents 11.6% of capacity and the remaining 5.1% covers chlorine-alcoholate production, hydrochloric acid conversion to chlorine, metal production and chlorine and caustic production without hydrogen as a by-product.

Chlorine manufacturing process

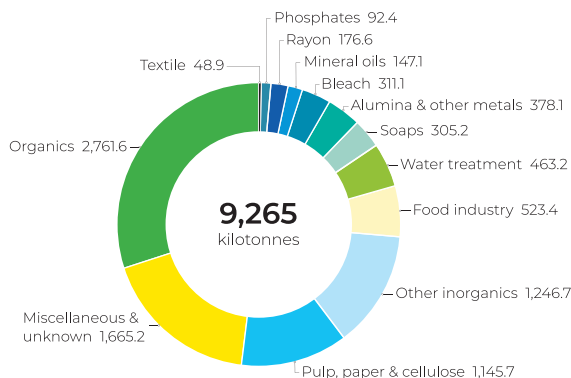
% of installed capacity at the end of production year



EUROPEAN CHLORINE APPLICATIONS 2019



EUROPEAN CAUSTIC SODA APPLICATIONS 2019



CHLORINE PRODUCTION PLANTS

1st January 2020 capacities

Process:

D = diaphragm

M = membrane

“Others” includes HCl electrolysis, ODC, molten salt electrolysis, alcoholates.

Non Euro Chlor members are indicated in italics.



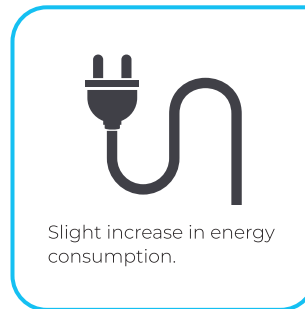
Country	Company	Site	Total (kilotonnes chlorine)	D	M	Others
1 Austria	Donau Chemie	Brückl	75		75	
Austria Total			75	0	75	0
3 Belgium	INOVYN	Lillo	500		500	
4 Belgium	INOVYN	Jemeppe	174		174	
5 Belgium	Vynova	Tessengerlo	400		400	
Belgium Total			1,074	0	1,074	0
7 Czech Republic	Spolchemie	Ústí nad Labem	69		69	
Czech Republic Total			69	0	69	0
9 Finland	Kemira	Joutseno	75		75	
Finland Total			75	0	75	0
10 France	Vynova PPC	Thann	42		42	
11 France	Vencorex	Pont de Claix	119		119	
12 France	KEM ONE	Fos	333	178	155	
13 France	Arkema	Jarrie	75		75	
14 France	KEM ONE	Lavera	341		341	
16 France	Arkema	Saint-Auban	20		20	
16 France	MSSA	Pomblière	42			42
18 France	INOVYN	Tavaux	370		370	
19 France	PC Loos	Loos	35		35	
France Total			1,377	178	1,157	42

CHLOR-ALKALI INDUSTRY REVIEW 2019-2020

	Country	Company	Site	Total (kilotonnes chlorine)	D	M	Others
20	Germany	BASF	Ludwigshafen	595*			
21	Germany	Covestro	Dormagen	480		400	80
22	Germany	Covestro	Leverkusen	390		390	
23	Germany	Covestro	Krefeld-Ürdingen	260		234	26
24	Germany	Covestro	Brunsbüttel	210			210
25	Germany	Dow	Schkopau	252		252	
26	Germany	Vinnolit	Hürth-Knapsack	250		250	
27	Germany	CABB GmbH	Gersthofen	55		55	
28	Germany	Dow	Stade	1,623	1,025	598	
29	Germany	Neolyse Ibbenbüren GmbH	Ibbenbüren	82		82	
30	Germany	Nouryon	Bitterfeld	99		99	
31	Germany	Evonik Industries	Lülsdorf	77			77
33	Germany	Nouryon	Frankfurt	283		283	
34	Germany	INOVN	Rheinberg	220	110	110	
35	Germany	VESTOLIT	Marl	260		260	
36	Germany	Vinnolit	Gendorf	180		180	
37	Germany	Wacker Chemie	Burghausen	55		55	
96	Germany	LEUNA-Harze	Leuna	15		15	
Germany Total				5,386	1,135	3,263	393
94	Greece	Kapachim	Inofita Viotias	10		10	
Greece Total				10	0	10	0
39	Hungary	BorsodChem	Kazincbarcika	480		384	96
Hungary Total				480	0	384	96
40	Ireland	Micro Bio	Fermoy	11		11	
Ireland Total				11	0	11	0
41	Italy	Altair Chimica	Saline di Volterra	75		75	
42	Italy	Società Chimica Bussi	Bussi	18		18	
44	Italy	Ing. Luigi Conti Vecchi	Assemini	25		25	
49	Italy	INOVN	Rosignano	150		150	
99	Italy	Halo Industry	Torviscosa	24		24	
93	Italy	Fater	Campochiaro	20		20	
Italy Total				312	0	312	0
51	The Netherlands	Nouryon	Botlek	637		637	
52	The Netherlands	Nouryon	Delfzijl	121		121	
54	The Netherlands	Sabir	Bergen op Zoom	89		89	
The Netherlands Total				847	0	847	0

*Distribution unknown.

	Country	Company	Site	Total (kilotonnes chlorine)	D	M	Others
55	Norway	Borregaard	Sarpsborg	40		40	
56	Norway	Elkem	Bremanger	77		77	
57	Norway	INOVYN	Rafnes	315		315	
Norway Total				366	0	366	0
58	Poland	PCC Rokita	Brzeg Dolny	186		186	
60	Poland	Anwil	Wloclawek	195		195	
Poland Total				381	0	381	0
62	Portugal	Bondalti Chemicals	Estarreja	142		94	48
Portugal Total				142	0	94	48
91	Romania	Oltchim (Chimcomplex)	Râmnicu Vâlcea	100		100	
92	Romania	Chimcomplex	Borzești	102		102	
Romania Total				202	0	202	0
63	Slovak Republic	Fortischem	Nováky	70		70	
Slovak Republic Total				70	0	70	0
88	Slovenia	TKI Hrastnik	Hrastnik	16		16	
Slovenia Total				16	0	16	0
64	Spain	Electroquímica Onubense	Huelva/Palos de la Frontera	44		44	
65	Spain	Ercros	Sabiñanigo	45		45	
66	Spain	Ercros	Vila-seca	172		172	
67	Spain	Electroquímica de Hernani	Hernani	30		30	
100	Spain	Biomca Química	Santa Cruz de Tenerife	5		5	
70	Spain	Química del Cinca	Monzón	45		45	
72	Spain	Bondalti Chemicals	Torrelavega	68		68	
Spain Total				409	0	409	0
75	Sweden	INOVYN	Stenungsund	123		123	
Sweden Total				123	0	123	0
77	Switzerland	CABB AG	Pratteln	47		47	
Switzerland Total				47	0	47	0
98	UK	Runcorn MCP	Runcorn	430		430	
85	UK	Brenntag	Thetford	7		7	
97	UK	Industrial Chemicals Ltd	West Thurrock	44		44	
UK Total				481	0	481	0
Grand Total				11,953	1,313	9,466	579
Per process					11.6%	83.3%	5.1%



ENERGY AND CLIMATE CHANGE: MOST RELEVANT GREEN DEAL TOPICS FOR EURO CHLOR

The European Commission (EC)'s Green Deal launched at the end of 2019 features a far-reaching package of measures. Euro Chlor's Regulatory Affairs Committee (RAC) has examined whether these Green Deal (now evolving into Green Recovery) measures impact our sector directly and whether we can help engage on any final decisions. RAC concluded (unsurprisingly) that energy and climate change and the zero-pollution ambition for a toxic-free environment were the most important areas.

Euro Chlor has of course been focusing on energy since our first Sustainability Programme in 2001, with energy consumption and hydrogen use being two of the key metrics tracked.

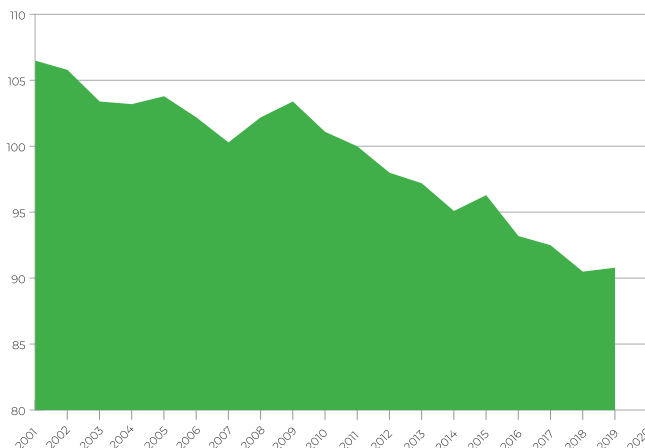
ENERGY CONSUMPTION

Energy consumption increased slightly in 2019 to 90.8% versus the 2011 reference from the 2018 level of 90.5%.

The decline seen over the last years mainly resulted from the phase-out of mercury technology. In the years to come, energy consumption levels are set to stabilise as there may be limited room to further improve the energy efficiency levels. This is especially true as improvements in modern membrane technology are fast approaching the thermodynamic limits of the process.

Primary fuel energy consumption

Percentage with respect to 2011

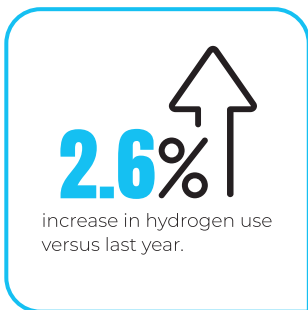


“ With new EU regulatory priorities, our sector faces challenges. We monitor these via Euro Chlor’s climate change and energy-related groups, which will help us contribute to Europe’s climate neutrality goals. ”

EURO CHLOR LAUNCHES THE HYDROGEN TASK FORCE

Hydrogen is high on the political agenda, and this has been confirmed by several recent high-level EU initiatives such as the European Clean Hydrogen Alliance and the EU Hydrogen Strategy. To be part of the hydrogen discussion, the Euro Chlor secretariat agreed to manage a new Hydrogen Task Force, open for all Cefic members, to serve as a platform for discussion and data collection.

The Task Force is supported by a wide variety of sectors, reflecting the great interest in the subject. During a well-attended kick-off meeting in June, the participants agreed on the need for a comprehensive overview of current hydrogen production and consumption, an analysis of the pros and cons of the different production routes and the potential applications of hydrogen.



CLIMATE AND THE ENVIRONMENT

KRISTOF MAY
Regulatory Affairs
Manager

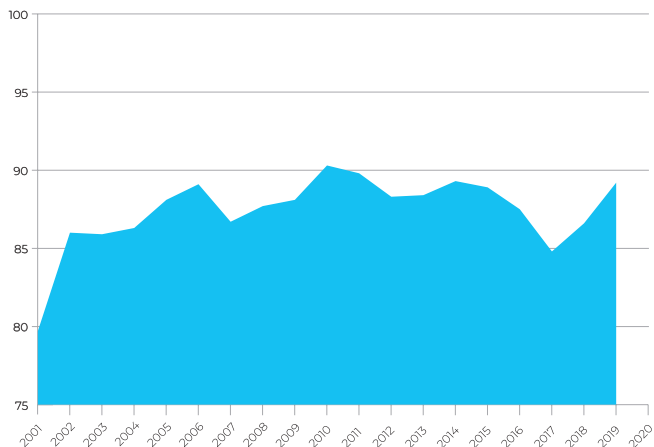
HYDROGEN USE

Meanwhile, Euro Chlor member companies have increased their use of hydrogen from 86.6% in 2018 to 89.2% in 2019.

Considering that hydrogen is an important chemical for the climate neutral economy, the 89.2% utilisation rate of hydrogen from chlor-alkali production remains relatively low. This may change over time as demand for hydrogen increases, and more application solutions become available. Euro Chlor continues to strive towards full utilisation.

Hydrogen used

Percentage of production

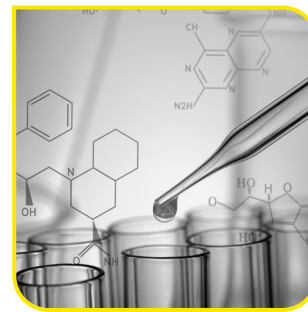


EURO CHLOR RESPONDS TO ETS STATE AID GUIDELINES CONSULTATION AND IED

Euro Chlor continued to help members remain competitive on energy by responding to the European Commission's (EC) public consultation on draft Emission Trading System (ETS) State Aid Guidelines. This took place in March 2020 via our Energy Task Force and through Cefic.

The current guidelines, which aim to reduce carbon leakage risk related to indirect ETS costs and incentivise the modernisation of production processes, will expire on 31 December 2020. Their proposed revision thus far includes a considerable reduction in the number of sectors eligible for compensation. Since the chlor-alkali sector is highly electro-intensive and vulnerable to carbon leakage, we remain on the list. Nevertheless, Euro Chlor introduced some specific comments on the required level of compensation, the benchmark determination and the avoidance of market distortion within the EU.

This year, Euro Chlor also participated in the EC's Industrial Emissions Directive (IED) Evaluation Focus Groups to provide input to its assessment of IED 2010/75/EU.



EURO CHLOR MEMBERS AHEAD OF THE CURVE ON MERCURY CONVERSION

In our annual monitoring of environmental commitments regarding mercury, we continue to see progress when it comes to mercury conversion. Following the phase-out of mercury technology by the end of 2017, the remaining liquid mercury must be converted to mercury sulfide and stored in a salt-mine by the end of 2022. This conversion process is now well underway. In 2019, 495 tonnes of mercury were converted with approximately 731* tonnes of mercury still being present at those sites which operated chlor-alkali mercury technology.

**Mercury for alcoholate production is not included in these figures.*

This past year, many members made announcements about their work on sustainability, which will contribute to the EU Green Deal ambitions.



CLIMATE AND THE ENVIRONMENT



Read more details at:
<https://chlorineindustryreview.com/sustainability>

“

Euro Chlor's Product Groups add value by optimally engaging with key stakeholders on behalf of their memberships.

”

EUROPEAN CHLORINATED SOLVENTS ASSOCIATION (ECSA) UPDATE

Early in 2020, ECSA launched its new website at <https://www.chlorinated-solvents.eu> to promote the benefits of chlorinated solvents. ECSA is also increasing collaboration with international associations and shared key information with US sister organisation Halogenated Solvents Industry Alliance, Inc. (HSIA) at its June Board of Directors meeting.

ECSA is monitoring several regulatory topics, including the March 2020 European Commission's (EC) evaluation of the Ozone Depleting Substances (ODS) Regulation. ECSA substances listed there include carbon tetrachloride (CTC) and methyl chloride (MeCl).

In early 2020, the German MAK Commission (the key institution for scientific-based occupational exposure limits (OELs) applied at national level) requested and obtained access to a study conducted with MeCl prepared by industry. Their experts concluded that there is no reason to classify MeCl for skin absorption, sensitisation, carcinogenicity or mutagenicity. The proposal can be commented on until the end of 2020.

Another evolving topic that ECSA is closely monitoring is the German UBA (Federal Environment Agency) initiative to implement PMT (persistent, mobile, toxic substances) under REACH and as a criterion for other regulations. This could affect perchloroethylene and trigger significant restrictions.



PRODUCT NEWS

ANGELICA CANDIDO
ECSA Manager

BUILDING UNDERSTANDING WITH CHLOROALKANES PRODUCT GROUP (CAPG)

The REACH Substance Evaluation has concluded for MCCP. CAPG is providing support to the MCCP REACH consortium to connect them with authorities and ensure that they are well-briefed on the most up-to-date science.

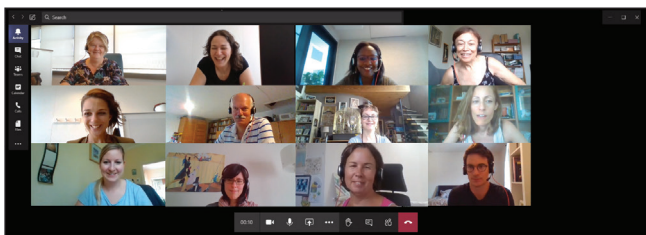
CAPG also provided input as part of the public consultation on the Restriction of Hazardous Substances in Electronics and Electronic Equipment (RoHS) Directive. As part of this, CAPG is working with Intertek to prepare a life-cycle assessment and worker exposure study that will provide authorities with useful information.

A range of activities were undertaken by the Potassium and Sodium Chlorate Product Groups (SCPG) to benefit their respective memberships in 2019/2020. Euro Chlor also played a key role in forming the new Chloroformates Sector Group (SG) and continued to collaborate with its sister Halogens Industry SGs EFCTC (European FluoroCarbons Technical Committee) and Eurofluor (CTEF, Comité Technique Européen du Fluor).



PRODUCT NEWS

Read more details at:
<https://chlorineindustryreview.com/products>




SEAMLESSLY COLLABORATING IN AND OUTSIDE EURO CHLOR

Like many of our members, due to the COVID-19 crisis, the Euro Chlor secretariat has been working from home since mid-March, which had little impact on everyone's productivity and efficiency. The secretariat has been flexible and resourceful in adapting our plans for the year.

This included the postponement of the 11th Euro Chlor International Chlorine Technology Conference and Exhibition in Warsaw, Poland by one year (4-6 May 2021). This in turn meant that the launch of our Mid-Century Strategy (MCS) was postponed to the Euro Chlor Annual General Meeting (AGM) on 10-11 September 2020. This AGM then had to evolve from a physical event in Munich, Germany to a virtual meeting.

Fortunately, we were able to count on significant guidance from our Working Groups and Committees, especially the Management Committee, General Technical Committee, Regulatory Affairs Committee and Communications Committee during this process.

“ I am proud of Euro Chlor's proactivity, transparency and collaborative spirit. Even under difficult circumstances, we continue expanding our outreach to members, sister organisations and key stakeholders. ”



Read more details at:
<https://chlorineindustryreview.com/about-us>



We also kept developing our connections with our downstream stakeholders, most notably VinylPlus® and the European Council of Vinyl Manufacturers (ECVM) and the European Diisocyanate & Polyol Producers Association (ISOPA).

And of course, we continued our work with the World Chlorine Council (WCC), the global chlorine and chlorinated products industries network (<https://worldchlorine.org/>). Euro Chlor is managing the WCC secretariat for two years until the end of 2020. Over the past year, Euro Chlor has organised two key meetings – the 2019 Annual Meeting in Tokyo in October and a virtual spring meeting at the end of March 2020. Each meeting covers reports from the Global Advocacy & Science Team, Global Safety Team and Global Communications Team with the Euro Chlor staff in the lead.

As part of its commitments here, Euro Chlor updated the WCC Sustainability Report, basing it on the United Nations' Sustainable Development Goals (SDGs) and showing how worldwide chlor-alkali chemistry can support them.



COLLABORATION AND OUTREACH

MARLEEN PAUWELS
Managing Director

“ As part of our Mid-Century Strategy, we will focus on communicating how chlor-alkali can help Europe achieve its green ambitions, whilst showing how attractive our industry is to potential new colleagues. ”

EURO CHLOR PREPARES LAUNCH OF NEW MID-CENTURY STRATEGY (MCS)

For the launch of our MCS, Euro Chlor produced a communications plan and many materials (brochure, presentations, Q&A documents and video).

A new webpage has also been released at <https://www.eurochlor.org/mcs> to serve as an information hub and update channel. Additional information will be posted on Euro Chlor social media channels and can be followed using [#eurochlorMCS](#). MCS updates will also appear annually in upcoming Industry Reviews to chart progress.

EURO CHLOR WEBSITE UPDATES

The Euro Chlor website at <https://www.eurochlor.org> has been updated over the past year with news and a new section on the UN's SDGs at <https://www.eurochlor.org/topics/sustainability/un-sdgs/> and new chlorine, caustic soda and caustic potash application 'trees' on our home page.



COMMUNICATIONS

CATHERINE BIRKNER

Communications
Manager

COVID-19 COMMUNICATIONS

With Euro Chlor input, Cefic has launched an interactive map and a COVID-19 helpdesk on <https://www.cefic.org> for the chemical industry to showcase member initiatives and give key support to members, respectively.

We have also posted many of our own members' announcements on <https://www.eurochlor.org> about their contributions to fighting COVID-19.



Read more details at:

<https://chlorineindustryreview.com/communications>



Follow us on
social media
[@eurochlor](#)



We actively update
our social media and
encourage people to
follow us on Twitter,
Facebook and LinkedIn.

MEMBERS

Altair Chimica SpA

<http://www.altairchimica.com>

Anwil SA (ORLEN Group)

<http://www.anwil.pl>

Arkema France

<https://www.arkema.com/en>

BASF SE

<http://www.BASF.com>

Biomca Quimica SL

<http://www.biomcaquimica.com>

Bondalti Chemicals SA

<http://www.bondalti.com>

Borregaard AS

<http://www.borregaard.com>

BorsodChem Zrt.

<http://www.borsodchem-group.com>

Brenntag UK Ltd

<http://www.brenntag.co.uk>

CABB AG

<http://www.cabb-chemicals.com>

CABB GmbH

<http://www.cabb-chemicals.com>

Covestro AG

<http://www.covestro.com>

Donau Chemie AG

<http://www.donau-chemie.com>

Dow Deutschland Anlagengesellschaft mbH

<http://www.dow.de>

Electroquimica de Hernani

<http://www.ehersa.com/es>

Electroquímica Onubense, S.L.

<http://www.electroquimicaonubense.es>

Ercros SA

<http://www.ercros.es>

Evonik Operations GmbH

<http://www.evonik.com>

Fater S.p.A.

<http://www.fater.it>

Industrial Chemicals Limited (ICL)

<http://www.icgl.co.uk>

Ing. Luigi Conti Vecchi S.p.A.

https://www.eniday.com/it/human_it/valorizzazione-saline-conti-vecchi

INOVYN ChlorVinyls Limited

<http://www.inovyn.com>

MEMBERS AND PARTNERS



Kapachim SA

<http://www.kapachim.com>

Kemira Oyj

<http://www.kemira.com>

KEM ONE

<http://www.kemone.com>

Micro Bio (Irl.) Ltd.

<http://www.microbio.ie>

MSSA SAS

<http://www.metauxspeciaux.fr>

Nouryon

<http://www.nouryon.com>

PCC Rokita SA

<https://www.pcc.rokita.pl>

Produits Chimiques de Loos (Tessenderlo Group)

<http://www.tessenderlo.com>

Química del Cinca SLU

<http://www.qcinca.es>

SC Chimcomplex SA Borzesti

<http://www.chimcomplex.ro>

Società Chimica Bussi S.p.A.

<http://www.chimicabussi.it>

Spolek pro chemickou a hutni výrobu, a.s. (Spolchemie)

<http://www.spolchemie.cz>

Vencorex

<http://www.vencorex.com>

VESTOLIT GmbH (Orbia)

<http://www.vestolit.de>

Vinnolit GmbH

<http://www.vinnolit.com>

Vynova Group



PARTNERS

Adama Makhtshim Ltd

<http://www.adama.com>

AGC Chemicals Europe Ltd.

<http://www.agcce.com>

Ak-Kim Kimya

<http://www.akkim.com/tr/en>

Alchemist International Ltd

n/a

AMEC FOSTER WHEELER ITALIANA SRL

<http://www.amecfw.com>

ANE (Asociación Nacional de Electroquímica)

<http://www.cloro.info>

Angelini A.C.R.A.F. S.p.A.

<http://www.angelini.it>

Applitek NV/SA

<http://www.applitek.com>

AQUAGROUP AG

<http://www.aquagroup.com>

Arch Chemicals S.A.S.

<http://www.lonza.com>

Armstrong Chemtec Group

<https://www.armstrong-chemtec.com>

Asahi Kasei Europe GmbH

<https://www.asahi-kasei.co.jp/asahi/en>

Atana Limited

<http://www.atana.co.uk>

Axiall, LLC

<http://www.axiall.com>

Banner Chemicals Limited

<http://www.bannerchemicals.com>

BARCHEMICALS SRL

<http://www.barchemicals.it>

BATREC INDUSTRIE AG

<http://www.batrec.ch/en>

BELL-O-SEAL VALVES P. LIMITED

<http://bellowseal.com>

Blackhall Engineering Limited

<http://www.shawvalves.co.uk>

Bluestar (Beijing) Chemical Machinery Co., Ltd.

<http://www.chemchina.com.cn>

BOCHEMIE a.s.

<https://www.bochemie.cz/en>

BWT AG

<http://www.bwt-group.com>

Caffaro Brescia S.r.l.

<http://www.caffarobrescia.com>

CARBUROS METALICOS SA

<http://www.carburossa.com>

CBee Europe Ltd

<https://www.clorox.com>

Chemieanlagenbau Chemnitz GmbH

<http://www.cac-chem.de>

Chemoform AG

<http://www.chemoform.com>

Chloran Chemical Production Co. (CCPC)

<http://www.ccpc.ir/en/home>

CIA - Chemicals Industries Association Ltd

<http://www.cia.org.uk>

Coogee Chlor Alkali Pty Ltd

<http://www.coogee.com.au>

De Nora Deutschland GmbH

<http://www.denora.com>

Descote

<http://www.descote.com>

DSD Chemtech Projects & Services GmbH

<http://www.dsd-chemtech.com>

DUPONT ASTURIAS, S.L.

<http://www.dupont.com>

Econ Industries Services GmbH

<http://www.econindustries.com>

ERAMET SANDOUVILLE SAS

<http://www.eramet.fr>

Essenscia ASBL

<https://www.essenscia.be>

Eu Salt aisbl (European Salt Producers' Association)

<https://eusalt.com>

Eynard Robin

<http://www.groupe.eynardrobin.com>

Fariman Petrochemical Industries

<https://farimanpetrochemical.en.ec21.com>

FEDERCHIMICA - Federazione Nazionale dell' Industria Chimica

<http://www.federchimica.it>

FIKE Europe bvba

<http://www.fike.com>

Garlock Sealing Technologies

<https://www.garlock.com>

Gazechim

<http://www.gazechim.com>

PARTNERS

GHC Gerling, Holz & Co Handels GmbH

<http://www.ghc.com>

Haixing Eno Chemical Co., Ltd.

<http://www.enochem.com.cn>

HELM AG

<http://www.helmag.com>

Hunt & Mitton Valve Company

<http://www.huntandmitton.net>

Huntsman Belgium BVBA

<http://www.huntsman.com>

IKEM - Innovation and Chemical Industries in Sweden

<http://www.ikem.se>

INQUIDE S.A.

<https://www.fluidra.com>

IXOM (formerly Orica Chemicals)

<http://www.ixom.com>

Jiangsu Ancan Technology Co., Ltd.

<http://www.ancan-cn.com>

Jordan Bromine Company

<http://www.jordanbromine.com>

K+S Entsorgung GmbH

<http://www.ks-entsorgung.com>

Kronos Worldwide Inc

<http://www.kronostio2.com>

KUROTEC-KTS KUNSTSTOFFTECHNIK STADE GMBH

<http://www.kurotec-kts.de>

Leuna Tenside GmbH

<http://www.leuna-tenside.de>

LOMBARDA H Srl

<http://www.lombardah.com>

Lonza AG

<http://www.lonza.com>

Lubrizol Deutschland GmbH

<http://www.lubrizol.com>

Mersen Pgy SAS

<https://www.mersen.com/markets/corrosive-chemicals/chlor-alkali>

META Régénération

<https://meta-regeneration.fr>

Nankai Chemical Industry Co., Ltd.

<http://www.nankai-chem.co.jp>

NEELTRAN, INC.

<http://www.neeltran.com>

MEMBERS AND PARTNERS



Nippon Soda

<http://www.nippon-soda.co.jp>

Nirou Chlor co.

<http://www.nirouchlor.com>

Nuberg Engineering Limited

<http://www.nubergepc.com>

Olin (Blue Cube Operations, LLC)

<http://www.olin.com>

Permascand AB

<http://www.permascand.com>

Pfeiffer Chemie-Armaturenbau GmbH

<http://www.pfeiffer-armaturen.com>

Phoenix Armaturen-Werke Bregel GmbH

<https://www.cw-valvegroup.com>

Powell Fabrication & Manufacturing LLC.

<http://www.powellfab.com>

PRINCE RUBBER & PLASTICS CO., INC.

<http://www.princep.com>

Recherche 2000 Inc.

<http://www.r2000.com>

Richter-Chemie-Technik GmbH

<http://www.richter-ct.com>

SALCO PRODUCTS INC.

<https://www.salcoproducts.com>

SALINEN AUSTRIA AG

<https://www.salinen.com/en>

Sasol Chemicals a division of Sasol South Africa (Pty) Ltd

<http://www.sasol.com>

SAVINO BARBERA SRL

<http://www.savinobarbera.com>

SCHP - Association of Chemical Industry of the Czech Republic

<http://www.schp.cz>

S... ceindustries



PARTNERS

Senior Aerospace Ermeto

<http://www.senior-aerospace-ermeto.com>

SEQENS Acid & Derivatives

<https://www.seqens.com/en>

SGL Carbon GmbH

<http://www.sglprocesstechnology.com>

SIEM Supranite

<http://www.siem.fr>

Sinopec Jiangnan Salt & Chemical Complex

<http://www.sinopecgroup.com/group/en>

Sojitz Europe plc

<http://www.sojitz.com>

Spolana s.r.o

<http://www.spolana.cz>

Steuler-KCH GmbH

<http://www.steuler-kch.de>

Syngenta Crop Protection Monthey SA

<https://www.syngenta.com>

TechnipFMC France

<http://www.technipfmc.com>

Teijin Aramid BV

<http://www.teijinaramid.com>

ThyssenKrupp Uhde Chlorine Engineers GmbH

<http://www.thyssenkrupp-uhde-chlorine-engineers.com>

Tosoh Corporation

<http://www.tosoh.com>

Tronox Pigments (Holland) B.V.

<http://www.tronox.com>

UNILEVER-KNORR S.A.

<http://www.unilever.com>

VAN DEN HEUVEL WATERTECHNOLOGIE BV

<http://www.vdhwater.com>

VCI - Verband der Chemischen Industrie e. V.

<http://www.vci.de>

VELTEK ASSOCIATES INC.

<http://www.sterile.com>

VNCI - Vereniging van de Nederlandse Chemische Industrie

<https://www.vnci.nl>

Xomox International GmbH & Co. OHG - Crane ChemPharma & Energy

<http://www.cranecpe.com>

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Read more details at:

<https://www.eurochlor.org/about-us/members>

<https://www.eurochlor.org/about-us/partners>

Euro Chlor supports a safe, competitive and green chlor-alkali industry for Europe.

Chlor-alkali is an essential building block for the manufacture of numerous products that we rely on every day. Across Europe, millions of jobs are dependent on the availability of competitively priced chlor-alkali supplies.

Chlor-alkali chemistry is also vital for the development of the innovative materials we will need in the future.

Euro Chlor's 38 producing members operate 60 manufacturing locations in 19 European countries, representing 97% of all European production capacity.

Euro Chlor represents the interests of chlor-alkali producers in Europe; encourages best practices in safety, health and environmental protection and promotes the economic and social benefits of chlor-alkali and the many industries that rely on them.

Based in Brussels, Belgium, Euro Chlor is a sector group of Cefic (European Chemical Industry Council).

Euro Chlor is a member of the World Chlorine Council, a global network of regional organisations that represents producers accounting for more than 85% of worldwide chlor-alkali production capacity.



<https://linkedin.com/company/eurochlor>



<https://twitter.com/eurochlor>



<https://facebook.com/eurochlor>

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<https://www.eurochlor.org>



The full version of this report is available from:

<https://chlorineindustryreview.com>

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A sector group of Cefic

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