

NEWS UPDATE

Issue 1

20113



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Chlorine Quiz

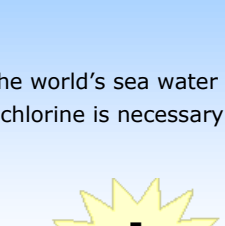
Lets start the year with a brain teaser , to see just what we do know about this very common chemical..... found in a lot of cleaning agents, swimming pools etc.

Chlorine	
Symbol	Cl
Number	17

Exposure Limits (STEL/TWEL)

Substance	CAS #	WEL Long Term Exposure		WEL Short Term Exposure	
		Limit -8 hr TWA ref	Limit -15 mins ref	Limit -15 mins ref	Limit -15 mins ref
Chlorine	7782-50-5	PPM	Mg.m-3	PPM	Mg.m-3
		—	—	0.5	1.5

- Q1 Why is chlorine an essential reagent in the chemical industry?**
- Q2 What colour is chlorine at normal temperature and pressure? (NTP)**
- Q3 Is chlorine a halogen or a diatomic gas?**
- Q4 Where can chlorine be found in abundance in nature as a chloride ion?**
- Q5 Can chlorine gas be toxic ?**
- Q6 Name three industrial uses for chlorine**
- Q7 Can chlorine become flammable?**
- Q8 Is chlorine corrosive?**
- Q9 How do you keep your workers safe if you have chlorine present on a site?**

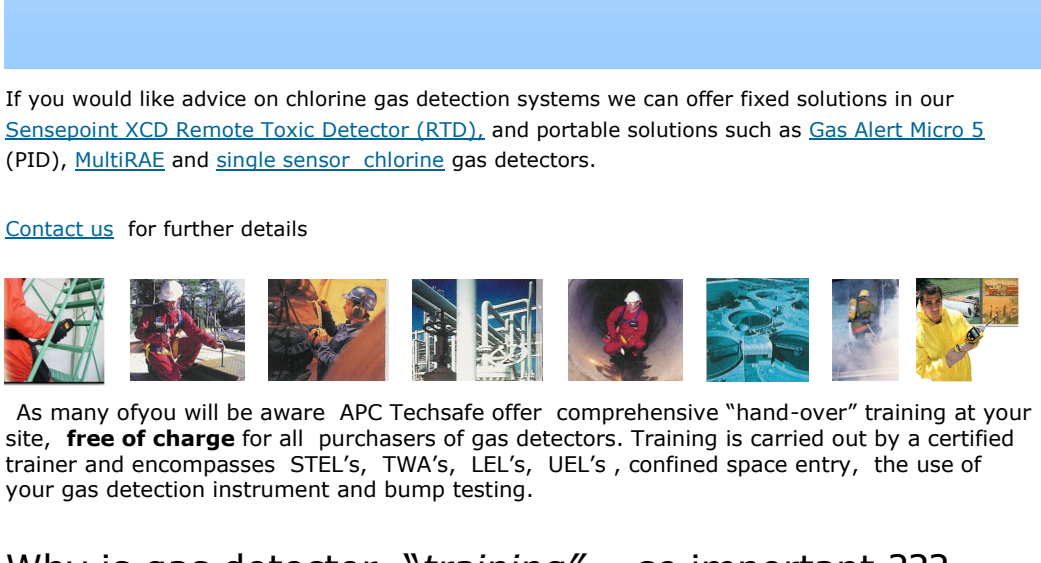


1. It is an effective bleaching element and powerful oxidant.
2. Greenish-yellow
3. Chlorine is both a halogen and a diatomic gas
4. Chloride ions are components of salt which means that nearly 2% of the world's sea water is in fact made up of Chloride ions. In the form of chloride ions (salt), chlorine is necessary to all known species of life.
5. Yes 40-60ppm leads to toxic pneumonitis and pulmonary edema, 430ppm is lethal after 30 minutes and 1000ppm is absolutely fatal within a few minutes
6. Water purification, disinfecting, cleaning products, water treatment industry
7. Because chlorine has the ability to oxidise easily it means it can also react with flammable materials
8. Yes, some swimming pool ceilings have been known to collapse catastrophically due to the corrosive effects of chlorine causing stress corrosion cracking of stainless steel used as ceiling supports.
9. Chlorines toxic and reactive nature means that both fixed and portable gas detection are required to ensure both plant and personnel are safe from potential hazards



If you would like advice on chlorine gas detection systems we can offer fixed solutions in our [Sensepoint XCD Remote Toxic Detector \(RTD\)](#), and portable solutions such as [Gas Alert Micro 5](#) (PID), [MultiRAE](#) and [single sensor chlorine](#) gas detectors.

[Contact us](#) for further details



As many of you will be aware APC Techsafe offer comprehensive "hand-over" training at your site, **free of charge** for all purchasers of gas detectors. Training is carried out by a certified trainer and encompasses STEL's, TWA's, LEL's, UEL's, confined space entry, the use of your gas detection instrument and bump testing.

Why is gas detector "training" so important ???

The right approach to expert training can save you both time and money, maximising device uptime. Professional training is imperative when it comes to the proper use and ongoing care of life saving equipment like gas detectors. In fact being able to maintain and use your gas detection device correctly can potentially mean the difference between life and death.

All gas detection is designed to protect not only personnel but also your plant and assets against flammable and toxic gas hazards. If your gas detector is not set up or operated in accordance with its intended use then it may not measure gas concentrations correctly, leaving both your workers and your plant open to danger.

We are all aware of the potential danger from gas releases/leaks -including fire/explosion risks from flammable gases and fatal poisoning by toxic gases, so it is vital that workers not only understand these dangers, but also maintain a healthy respect and working knowledge of their "personnel" gas detection devices.

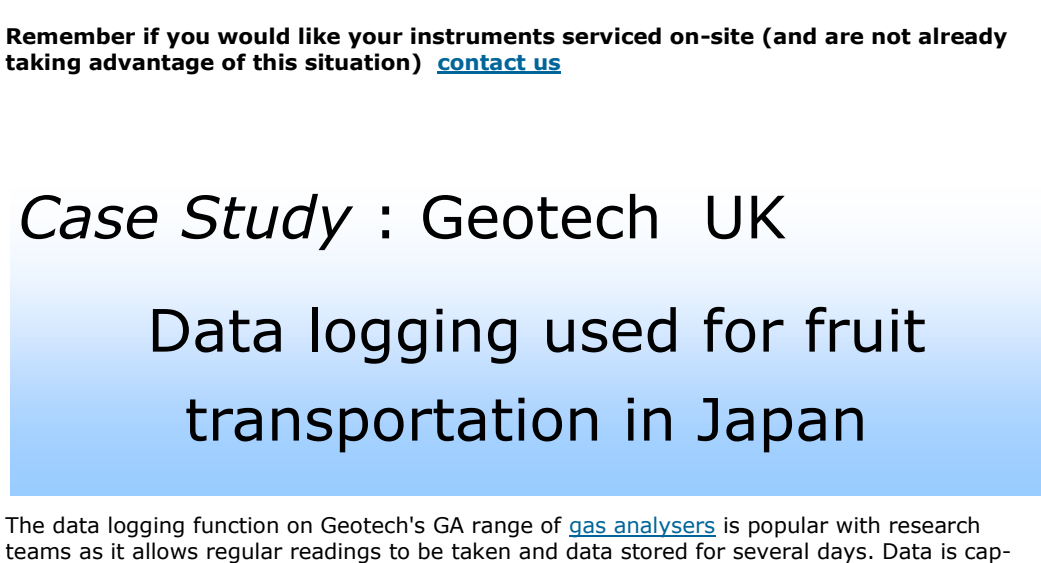
Many fixed and portable devices specified in the local market place are driven by compliance requirements and the arrival of "bump" test stations/microdocks etc have enabled regular portable bump testing of your gas detection devices as best practise, this addition with a little training can reduce ongoing maintenance costs substantially, simplifying maintenance and providing an attractive in-house solution to keep both your workers and plant safe.

For further details on docking/calibration/bump testing stations : or our hand-over training

[Emails us :](#)

Mainland Alert

Keep an eye out for our new South Island based calibration/service van. Decked out with exciting new graphics, and permanently based in the South Island - David McRoberts should be driving it to a site near you.....soon.



Remember if you would like your instruments serviced on-site (and are not already taking advantage of this situation) [contact us](#)

Case Study : Geotech UK

Data logging used for fruit transportation in Japan

The data logging function on Geotech's GA range of [gas analysers](#) is popular with research teams as it allows regular readings to be taken and data stored for several days. Data is captured regularly without researchers needing to be present, such as over a weekend or holiday. An unusual project using this functionality was carried out by a team from the National Agriculture and Food Research Organisation at Tsukuba, Japan, who used the gas analyser to monitor the environment for fruit during shipping.

Dr. Yutaka Ishikawa and Dr. Hiroaki Kitazawa packed fresh fruit in a high CO2 environment. The sealed kit was monitored by samples taken to a GA2000 data logging beneath the container as it was shipped over 3-4 days to Taiwan. This process was repeated and on each occasion the GA reliably, without any external power source or data communications, captured data about the CO2 levels in the container. It was confirmed that the high CO2 concentrations in the packing environment had been maintained.



This research was carried out using a GA2000 but data logging is now available for the [GA5000](#). The Geotech GA5000 portable gas analyser, normally used for landfill gas monitoring, can assist with a variety of gas monitoring applications including contaminated land, remediation sites and waste to energy projects.

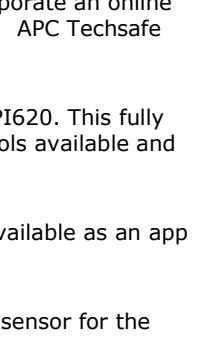


For [further details](#) :

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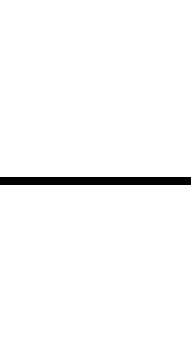
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■ GE Sensing Conference Updates



Our intrepid traveller Dave Catt has recently attended the GE conference in Korea (GE Sensing)

GE Conference Update/ Seoul, Korea



83 delegates attended at the end of January at GE's newly completed Electronic Technology Centre (GE ETC) which is considered a showcase for the future. During the three day conference Dave delivered an 'off the cuff' address on Tsunami gauges.

GE are introducing a training program called "Raising the Bar". This will incorporate an online tool for pressure technical training and certifying sales and service engineers. APC Techsafe have requested to be considered as the test site for this new initiative.

DPI620 ceases production this month and will be replaced by the GeneII DPI620. This fully featured device will have "Apple like display and interface", Full calibration tools available and is compatible with the AMC accessories.

Sensors /UNIK 5000 New software engineering configuration tool will be available as an app and asteroid version

ADTS ADTS 568 to be introduced later this year, fully featured using TERPS sensor for the commercial market