## Growth ethics placed at the service of Safety.



**CONTRALCO**, a French family-run SME, has been based in Gignac, in the Herault region since its foundation in 1982. The Company specializes in the manufacture and marketing of disposable breathalyzer kits. It develops, manufactures and distributes mass detection tests.

Its research work and manufacturing processes are covered by a patent and a model that have been registered internationally.

The Company's achievements have been recognized several times by the ANVAR. The main application of this patent concerns the blood alcohol level test called Le Ballon® used to detect the presence of alcohol vapours in the air exhaled by a human being.

For the past 25 years, more than 200 million breathalyzer kits have been used in the road safety fight against alcoholism and alcohol-related accidents.

At the end of 2006, a new Management team — Antoine Marin and Eric Condesse — bought out the Company.

A Company investment and modernization programme was put in place together with Sales-Marketing, Export, Research & Development departments, signalling these new growth dynamics.

### CONTRALCO, the European leader in the field of disposable breathalyzer kits.

Thanks to a product that is simple to use, reliable and of acknowledged quality, the CONTRALCO breathalyzer has held Ministry of Health approval since 1982. The National Test Laboratory carries out yearly tests on the product as part of the NF certification procedure. Additional certifications (APPLUS, TÜV etc.) have reinforced this token of quality.

Since 1983, this reliability and ease of use have met the French Police Forces' requirements in terms of prevention and highway controls.

Alongside this market, CONTRALCO have developed the concept of individual preventive control in both the Corporate world and also with the Public.

In the Corporate field, the Company provides support to the CPAM [Local Sickness Insurance Fund], the CHSCT [Committee for Health, Safety \* Working Conditions] – or direct to businesses – the ANPAA [National Drug and Alcohol Abuse Prevention Association] and all associations dealing with alcohol addiction.

With regard to the Public, CONTRALCO is raising awareness in the distributive trades to ensure that they give their support to the "Soufflez et vous saurez" [Blow and you'll know] self test campaigns run by Road Safety authorities.

Accordingly, the breathalyzer is available:

- through various distribution channels (AUTO LECLERC, ROADY etc.), chemists, tobacconists, newsagents, supermarkets (CASINO, LEADER PRICE distributor brands)
- distributed free of charge as a prevention aid by institutions, by insurance companies and preventive associations as part of the campaign to raise awareness and prevent the risk of alcohol abuse at work or behind the wheel.

CONTRALCO also provides support to European road safety policies and the CONTRALCO breathalyzer can be found in most European Union countries (Italy, Spain, Portugal, Benelux, Greece etc.).

### A citizen company

The values dear to CONTRALCO and its directors focus on the development of "ethical" products, consistent with a respect for its financial and social environment.

ISO 9001 certificated, the Company is responsible for continuously raising the awareness of and training its personnel in the quality of the products manufactured, increasing the number of its inspection points.

The CONTRALCO breathalyzer is manufactured exclusively on the Gignac site and all its components are sourced in mainland France. Great importance is placed on component and packaging recyclability.

The Company has now decided to embark on the ISO 14000 certification procedure. This is a voluntary decision that supplements statutory developments and is indicative of the importance attributed by CONTRALCO to its environment.

Creation, innovation and development placed at the service of Safety for All.

Having worked in partnership with regional research organizations (Montpellier Chemistry Faculty, Universities etc.) for some time, in 2008, CONTRALCO decided to invest in the creation of a Research & Development Department.

A team of 6 people has been dedicated to 3 lines of approach designed to improve the existing test and to develop additional tests:

- ongoing improvement to the breathalyzer through upgraded reagent and scan mode
- the launch of a simple test designed to detect drugs
- the development of field tests for use in food and environmental safety

CONTRALCO relies on the skills of the members of its research team for product innovation and on the experience of its production team for industrialising its new products.

Therefore, developments that will be achieved during the forthcoming years will be supported by the creation of new production lines.

At the same time, CONTRALCO regards the widespread deployment of breathalyzer use as a priority. In support of the Government's awareness campaigns which are essential to gaining awareness of self tests, CONTRALCO is actively continuing to raise the awareness of various parties involved (motor vehicle dealers, oil companies, motor vehicle rental companies, technical inspection centres, restaurants, discotheques etc.) by offering packaging specifically designed for their relative distribution circuits (customized packs, display units, vending machines etc.).

Product offered as "Freedom Pack" (breathalyzer + condoms) or "Absolute Pack" (Breathalyzer + Condoms + Ear Plugs) combinations are welcomed by young people.

This development strategy is backed by production tool modernization. An investment programme launched in 2008 and 2009 in order to increase, enhance and improve production was entrusted to regional design offices and manufacturers.

The production tool modernisation is backed by a Personnel training plan.

CONTRALCO's expertise combined with the effectiveness of road safety policies deployed in France for decades have raised the awareness of governments in a number of developing country, causing them to set up prevention policies focusing on their youth.

CONTRALCO provides its expertise beyond its borders and will be opening up to the international market over the next few years.

Finally, the European policy is taking its inspiration from actions carried out in France, and "Latin" countries together with the latest arrivals into the European Union (Central European countries) are beginning to deploy prevention initiatives. CONTRALCO offers a product and unrivalled experience in support of these initiatives.

### A few figures

- 13 million breathalyser kits sold in 2008
- 5,663 k€ turnover
- 1,500 clients and partners
- 10% of turnover achieved in exports to 20 countries
- · A production unit operated by a staff of 50 to 80 workers
- A laboratory with 7 researchers and engineers
- An 8-member sales team
- A 3-member administration team

Contact

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# Single use chemical ethylotest

## Operating principle

The alcohol contained in expired air causes a change in colour of the chemical reactant of the ethylotest. The reading of the result is taken by observing the height of coloration of the active principle in the glass tube. The ethylotest helps to determine whether the alcoholaemia of the person tested is Higher or Lower than a given value (the ethylotest calibration rate). The chemical ethylotest does not provide a precise figure for the alcohol level.

**Detection range :** For each calibration level there is a corresponding ethylotest model.

Calibration levels (in mg/l of air) : 0,10 - 0,15 - 0,20 - 0,25 - 0,30 - 0,35 - 0,40. Equivalences in g/l of blood) : 0,20 - 0,30 - 0,40 - 0,50 - 0,60 - 0,70 - 0,80.

(Note: The level of alcoholaemia in the air is 2,000 times lower than the level of alcoholaemia in the blood). Example: 0.25 mg/l in the air is equal to around 0.50 g/l of blood).

## Components of the ethylotest

The balloon makes it possible to collect the volume of air necessary for the analysis.

Volume: 1.3 litre for calibration levels of 0.10 to 0.30 mg/l of air and 1 litre for calibration levels of 0.35 and 0.40 mg/l of air.

- Pressure drop when filling: lower than 150 hPa/l/s.
- Resistance to pressure: higher than 170 hPa.

The reactant tube contains the chemical reactant which changes colour in the presence of alcohol. The chemical reactant is packaged in a perfectly watertight enclosure.

#### Packaging:

Compulsory "primary packaging": Protective envelope made of a co-extruded OPP Film. Secondary packaging "optional": Cardboard box, Blister packs, Display Cases, Plexi Box...

## Performance

Product complying with the "Chemical Ethylotest standard NF X 20-702" of June 2007

A calibrated ethylotest with C value must comply with the following requirements :

- ✓ Tested at (C1 = C-0.05) 95% of tests must give a negative result.
- ✓ Tested at (C2 = C+0.05) 95% of tests must give a positive result.
- ✓ Tested at (C3 = C+0.15) 96% of tests must give a positive result.

The ethylotests are tested at three concentrations (C1, C2, C3) under different conditions :

- ✓ Standard conditions: 22°C + / 2°C.
- ✓ Temperature variation : Tests at + 10°C and + 40°C.
- Debit variation : Variations of + 20%.
- ✓ Thermal ageing: The products are subjected to sudden variations in temperature from 0°C to 40°C for 16 hours, then 60°C for 1 hour.

They are then tested under standard conditions.

The controls are carried out by LNE (Laboratoire National d'Essais) at least once a year.

## Product and validity information

- ✓ Usage instructions printed on the balloon containing the information relating to precautions for use, directions for use and the method for reading the result.
- ✓ Information written on the pack in which the ethylotest is wrapped :
- Manufacturer's details.
- ◆ Date of validity in the format "xxxxx/yy" with "xxxx" = year of end of validity and "yy" = month of end of validity.
- ◆ Batch number in the format "xxxxx/yy with "xxx" = year of bagging and "yy" = month of bagging.
- ◆ Serial number in the format "aa jj hh mm ss" with "aa" = last 2 figures of the year of bagging, "jj" = no. of the bagging day, "hh" = hour of bagging, "mm" = minute of bagging, "ss" = second of bagging.
- ✓ Ethylotests calibrated at 0.50 g/l of blood (i.e. 0.25 mg/l of air) or more have a validity of 24 months.
- ✓ Ethylotests calibrated at 0.20 g/l of blood (i.e. 0.10 mg/l of air) have a validity of 12 months.

## Storage and preservation

✓ Store the ethylotests away from the light and at a temperature below 40°C.







# Tell me about the alcohol breath test

# LeBallen

SINGLE-USE ALCOHOL BREATH TEST



Everything you wanted to know about alcohol breath tests!

# Products interfering with the test

Any primary, secondary or tertiary alcohol function in the breath may interfere with the test results. Alcohols such as methanol, propanols or n-butanol may lower the alcohol reading. Normally, people in contact with these substances avoid inhaling them for health reasons.

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We are not aware of any medication likely to change the test result.

When a medication contains an alcoholised substance,

it is generally in too small a concentration for there to be a significant effect on the test result.

As for certain mouth washes, you can eliminate any interference by adhering to the instructions for using the breath test, which recommend not eating or drinking for 10 minutes preceding the test. (During this time lapse, saliva and breathing eliminate the substances likely to interfere).

### Cigarette smoke and other substitutes to 'trick' the breath test.

 When breath is strongly impregnated with smoke (that is, the person blows up the balloon with air impregnated with smoke), there is less of a contrast between the yellow and green of the reactant. But cigarette smoke does not turn the reactant green and does not prevent the reactant from turning green.



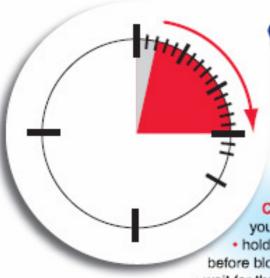


 Water, strong coffee, a spoon of oil, a cold shower, sweets, etc: all are ineffective recipes to inhibit test function.



# In the case of accidental contact with the reactant

In the case of ingestion: administer a large glass of water and contact the nearest poison unit. Do not induct In the case of product going into the eyes: Rinse the eye(s) thoroughly for 10 minutes with cold running water contact the nearest poison unit.



# Period of interpretation of result

The test result must be interpreted around two minutes after emptying the balloon (so that the chemical reaction has time to develop). The test result must not be interpreted more than 15 minutes after emptying the balloon (in the open air, the reactant absorbs moisture, causing the colours to spread).

CAUTION: If the test takes place outside in temperatures below 5°C, you are advised to:

 hold the test in your hand for around two minutes to heat up the reactant before blowing into the balloon,

 wait for three minutes instead of minutes for the colours to develop.

# Accuracy of the product

To obtain certification for the French NF standard, chemical breath tests must have 95% reliability during checks carried out by the national laboratory, LNE. Through its design, our breath test has a reliability rate of nearly 100% for alcohol levels over 0.25 mg/l breath.

### Is it possible to use a test beyond its expiry date?

Correct maintenance of our breath tests depends on the storage conditions (protection from light and avoidance of prolonged exposure to temperatures above 40°C). Products stored in these conditions can be kept for a minimum of two years or even longer.

# 20 10 0 -10

#### When the expiry date on the sachet is exceeded,

you can check whether breath tests may still be used by observing (through the glass tube without removing the cover from the test) whether the reactant has maintained its yellow colour.

If this is the case, test performance is unchanged and you can use it.

When the reactant has deteriorated, it assumes a pale green colour and you must not use the product.

We manufacture our breath tests in batches and thus you need only check the colour

of the reactant in one or two products per carton.

# Disposal of the used product

The product may be thrown away with household non-recyclable waste.

The breath test comprises two elements:

The plastic balloon may be converted to heat energy; however, few local authorities have a facility for the recovery of flexible plastic.

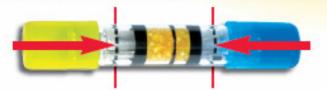
The reactant tube cannot be recycled since it comprises several elements of a different nature. However, it does not represent hazardous waste to the environment and may be thrown away with household waste.

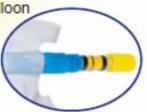
ice vomiting. water

# How do you make sure you have handled the test correctly?

### The following precautions should be taken to handle the test correctly:

- Inflate the balloon
- Push the two ends of the tube together to meet the dotted line
- Insert the blue end of the tube firmly into the blue nozzle of the balloon





### There are two ways of ensuring that you have carried out the test correctly:

Whatever the alcohol reading, after deflating the balloon you should be able to detect:

- a slight increase in the temperature of the reactant (perceptible to the touch)
- a change in colour of the reactant. If the alcohol rate is zero, the reactant is merely dampened and assumes a brownish colour.

In the presence of alcohol, the reactant assumes a green colour; the higher the alcohol rate, the more intense the green colour. If neither of these two phenomena occur after emptying the balloon, repeat the test using a new balloon.

# Interpretation of the results

- The reactant turns brown not green = Alcohol rate is 0.
- The reactant turns light green but not beyond the central ring = Between 0.1 mg/l and 0.25 mg/l



 The green colour reaches or exceeds the central line = Above 0.25 mg/l.

The higher the alcohol level, the darker the colour.



**CAUTION:** For very high alcohol levels (over 0.4 mg/l and more), the colour appears instantaneously with a bluish tinge but does not necessarily develop across the whole length of the reactant.

IMPORTANT: The alcohol concentration in breath is around 2,000 times lower than that in the blood. As a result, an alcohol rate of 0.25 mg/l air is equivalent to 0.50 g/l blood.

# In France as abroad



The only reference standard for breath tests is NF227 which has the technical features set out in French standard NF X 20-702.

Our breath test meets the technical requirements of this standard. Thus it possesses all the additional features defined in the standard such as 'contains method of use, marking of products, systems of quality control, etc.'

#### Abroad:

In Europe, there are TUV (Germany) and Applus (Spain) certifications which are largely inspired by the French standard.

Australia and the United States also have specific standards.







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### Research & Development

Perfecting the chemical formula and producing the substance in our laboratory.





Assembly of

components

automation

### Production & Assembly

the various tube using calibrated for measuring of the reactant



### Checks & Planning

Control and preparation of packaging for the various elements.





Marketing

& Logistics

Graphic design,

personalising

products

image,

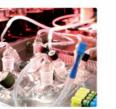
packing,

to suit your

commercial

dispatching, shipping.









An alcohol breath tester is still the best way to know your alcohol level.





# Protection of the environment

The glass reagent tube

The reagent tube used for the CONTRALCO alcohol test device does not constitute dangerous waste for the environment in the sense of the European Directives and in particular Directive 1999/45/EC. 

This reagent tube may be eliminated with household waste in accordance with the details included in the instructions. The reagent is packaged automatically.

The reagent dose in the glass tube is a volumetric dose.

The quantity of reagent in the tube is 0.8g (+/-5%)



### The balloon

The balloon is made up of two plastic materials: the flexible polyethylene (PE) bag and the rigid blue polypropylene (PP) end piece. When placed in special "plastic waste" containers they can be recycled or developed for energy purposes. PE and PP have a high calorific value (calorific gain greater than 22MJ/kg compared to fuel oil which has a calorific value of 45MJ/kg).

### The cardboard

The paper used for printing the cardboard is recycled and recyclable. The inks are of vegetable origin and our printer adheres to the environmental charter:





All our packaging material is made from cardboard recycled by our cardboard manufacturers.



### Certification

ISO 9001 Quality Label. Bureau Veritas.





# Vrink-driving information and prevention document

Often, all it takes is a family celebration, a drink with friends or a meal with plenty to drink to exceed the legal blood alcohol level limit.

On average, it only takes 3 glasses to take you over the limit.

In 85% fatal accidents caused by alcohol, those causing the accident are only occasional drinkers.

**Percentage** fatal accidents caused by drinking alcohol

Throughout the year	34%
At weekends	50%
Involving 18/24 year olds	42%

Alcohol is the main cause of fatalities in road traffic accidents.

• The risk of an accident occurring is doubled when blood alcohol levels reach 0.5 g/l; it is 10 times higher with blood alcohol levels of 0.8 g/l and 35 times higher at 1.2 g/l.







## Tow fast does the human body eliminate alcohol?

A return to zero levels takes place very slowly:

The liver eliminates alcohol taken in at the rate of 0.10 to 0.15 g/l per hour and here again, this will vary depending on the person concerned. There are no effective ways of "getting rid" of alcohol so there is no point in drinking very strong coffee or plenty of water, of eating "miracle" sweets, of taking a cold shower, exercise etc.

The only solution (applies to everybody) is WAIT.

At least 3 hours before taking the wheel if your blood alcohol levels read 0.8 g/l.

## Can you calculate your blood alcohol levels?

When a glass of alcohol taken on an empty stomach, the blood alcohol level at the "peak" point can be calculated as follows:

Blood alcohol level (as g/l of blood) =

(Degree of alcohol /100) x volume Ingested (In ml) x 0.8 (density of pure alcohol)

Weight of the subject (in kg) x K

Where K is the diffusion coefficient (K = 0,7 for a man and 0.6 for a woman)

In order to calculate blood alcohol levels, the following need to be very accurately recorded for each drink:

the degree of alcohol, the amount taken and the time of consumption. Even when this information is scrupulously recorded,

it is difficult to calculate a person's blood alcohol level because this will depend on several factors that no mathematical model can incorporate.

In particular, these factors include:

- · medication being taken
- · fatigue, stress, state of health
- · physiological parameters

(amount of blood and water in the body, liver function etc.).

A breathalyzer is still the best way of checking blood alcohol levels.



each glass contains almost the same amount of alcohol.

Alcohol	Degrees (% by vol.)	Glass capacity (cl)	Amount of alcohol (g)
BEER	4,00	33,00	10,56
WINE	11,50	12,00	11,04
CIDER	4,00	33,00	10,56
WHISKY	45,00	3,00	10,80
ALCOPOPS	4,00	33,00	10,56
PASTIS	51,00	2,50	10,20

Therefore, the average used is 11 g of pure alcohol per glass. This amount is calculated using the following formula: Mass of pure alcohol (In g) = [(Degree of alcohol/100) x amount consumed (In ml) x 0.8 (density of pure alcohol)]

The amount of pure alcohol (in g) per litre of blood indicates the blood alcohol content.





## The penalties

There are two levels of penalties:

- Between 0.35 and 0.40 mg/litre of air (0.50 and 0.80 g/l of blood): It is an offence
- Above 0.40 mg/litre of air (0.80 g/l of blood): It is a crime



A fine of between 135 and 4,500 $\epsilon$ , the loss of 6 points from your driving licence, driving licence suspended or taken away for up to 3 years maximum, vehicle impounded and a prison sentence of up to 2 years maximum.

Physiological mechanisms

- 1 Alcohol goes direct into the stomach without undergoing any chemical change.
- 2 It crosses through the wall of the small Intestine and goes direct into the blood stream.

  Alcohol is conveyed by the blood stream to all parts of the body: the liver, the lungs, the brain etc.
- 3 Aln the lungs, an exchange takes place between the blood and the air:

This means that the alcohol level in the air becomes proportional to level of alcohol in the blood.

The human body absorbs alcohol 2 to 3 times faster than it eliminates it. Each additional glass very quickly increases the blood alcohol content.

The effects of alcohol

You are endangering both your life and that of others.

Alcohol delays your reactions

Alcohol makes you more aggressive

Alcohol narrows and distorts your field of vision

Alcohol increases susceptibility to dazzling

Alcohol affects distance assessment

Alcohol reduces reflexes

Alcohol has a euphoric effect



Nhat are you risking?

In brief, alcohol diminishes your capabilities while leading you to believe they have become better.

## Abuse prevention

- The forces of law and order carry out systematic breathalyzer campaigns on the orders of the procurator of the republic or at the initiative
  of a law enforcement officer. You cannot refuse to be breathalysed at the risk of incurring the penalties set for alcohol levels above 0.8 g/l.
- For several years, the Road Safety authorities have been organising prevention campaigns in order to encourage self-testing.
   CONTRALCO NF breathalyzer kits are now available from all major supermarket chains, vehicle centres, chemists, tobacconists and newsagents. Therefore, it is very easy for drivers to check their blood alcohol levels before getting behind the wheel.
- Road Safety together with all the other associations involved, the Police Headquarters and alcohol outlets regularly distribute
   CONTRALCO NF breathalyzer kits to young people at evening events, festivals and other venues where alcohol consumption could lead to a road traffic accident.

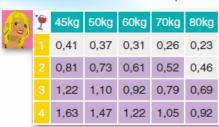
A major movement has been created to prevent dangers associated with drink driving.

This movement can be enhanced if we all make an even greater contribution to the circles in which we move.

All we need to do is to: • self-test ourselves and encourage others to do so

- encourage drivers to drink in moderation
- circulate the main information featured in this document

## Learn how to calculate your blood alcohol levels



(2)	•	50kg	60kg	70kg	80kg	90kg	100kg	110kg
R	1	0,31	0,26	0,22	0,20	0,17	0,16	0,14
	2	0,63	0,52	0,45	0,39	0,35	0,31	0,29
	3	0,94	0,79	0,67	0,59	0,52	0,47	0,43
	4	1,26	1,05	0,90	0,79	0,70	0,63	0,57

\* standard measures • g/l of blood alcohol on an empty stomach at the peak blood alcohol level point, i.e. one hour after having drunk the 1st glass.

