

→ ODOROX® odorized oxygen

A Member of  
The Linde Group

AGA

# Let safety come first with ODOROX® odorized oxygen.

You can't see the leak, you can't hear the leak,  
but you can smell it.



# Simply trust your nose.

## ODOROX® odorized oxygen.



ODOROX® odorized oxygen has a clearly detectable odour to warn of potential leaks and dangerous accumulations of oxygen. With the help of your nose, the ODOROX® gas contributes to a safer working environment.

ODOROX® odorized oxygen from AGA is an early warning system that is designed for all oxy-fuel applications to safeguard the working environment. It reduces the very real risk of fire or explosion by providing a distinct warning odour when oxygen concentrations rise unintentionally above normal level. Since AGA is able to supply the gas in cylinders and supply lines, all industrial users of oxy-fuel applications have access to the enhanced safety of the ODOROX® concept.

Oxy-fuel applications are used in many places, e.g. in the offshore and metal-working industry. In those fields, safety is an important issue as combustion increases in the presence of concentrated

oxygen. This, and the fact that oxygen has neither smell nor colour, demands a high degree of caution. The proven commitment of Linde to safety improvements prompted the development of an innovative new concept – ODOROX® odorized oxygen – to complement standard safe practice with an instant alert system that prevents unwanted oxygen enrichment. The need for such a solution was clear: around one in ten metal-working companies have experienced an incident related to excessive oxygen concentrations with circumstances varying from unpredictable leakage (from hoses, valves or connections) to misuse.

## Smell the danger. Less accidents with the ODOROX® solution.

Any or misuse can easily result in a dangerous build-up of high oxygen concentrations. As a consequence, even clothing which is regarded as non-flammable can catch fire. Therefore, any oxygen leak must be detected immediately before combu-

stion occurs. As oxygen is somewhat denser than air, these increased concentrations can build up in pockets at floor level, creating a marked increase in combustion velocity.







## The ODOROX® concept: ingeniously simple

The benefit of the concept lies in its simplicity: if you can smell it, some thing is wrong.

ODOROX® odorized oxygen contains small amounts (12 ppm) of dimethyl sulphide (DMS) which alerts with its highly distinctive smell when the oxygen

concentration rises from 21 % to 22 %. Even when only 10 parts per million (ppm) of DMS have been added to the oxygen, the smell becomes noticeable in plenty of time to take protective action. The small quantity of DMS in oxygen has no impact on the performance of the oxy-fuel process nor on the working environment.



ODOROX® odorized oxygen for an unmistakable warning of unwanted concentrations of oxygen. Available in cylinders, in cylinder bundles, and for large-scale customers with supply lines. An increase to 24 % from the ambient oxygen concentration of 21 % doubles the Combustion velocity. By the time this figure reaches 40 %, the combustion velocity in contact with a spark or naked flame increases tenfold. ODOROX® odorized oxygen is intended to enhance safety at the workplace but should not be considered a substitute for standard safe practice.

## Reducing risk

The risk of oxygen-related accidents must not be underestimated. The fact is that, even when working outdoors or in a windy environment, oxygen accumulates readily in the fibers of combustible fabric where it can remain unnoticed for a long time. And in confined areas, it especially builds up at floor level where sparks may fall. There is a clear and present risk. There is also a solution. ODOROX® odorized oxygen.

## Successfully tested

In certain markets, ODOROX® odorized oxygen has been available to larger customers for several years now and has enjoyed enormous success. Significantly, no lethal accidents have occurred when ODOROX® odorized oxygen has been used. By taking up this product, with its clear safety benefits, companies demonstrate an increased awareness of the personal, social and economic implications of enhancing the safety of the working environment.



# Safety comes first. ODOROX® odorized oxygen for all oxy-fuel applications.



The impressive take-up of ODOROX® odorized oxygen when it was introduced in cylinders on pilot markets transcended all industry and application boundaries. Since then, it has been used by both small-scale workshops and large companies. Moreover, because of its proven safety record, it is widely recommended by several users. ODOROX® odorized oxygen can be applied in

all fields where oxygen is used in a combustion process. It is available in cylinders, in cylinder bundles, and for bulk or supply systems with a tank. The addition of a small amount of DMS does not affect the performance, the behaviour or the shelf life of the oxygen. Instead, it unmistakably warns you if there is an oxygen leak, so you can immediately take appropriate action.



# Getting ahead through innovation.

With its innovative concepts, AGA is playing a pioneering role in the global market. As a technology leader, our task is to constantly raise the bar. Traditionally driven by entrepreneurship, we are working steadily on new high-quality products and innovative processes.

AGA offers more. We create added value, clearly discernible competitive advantages and greater profitability. Each concept is tailored specifically to meet our customers' requirements – offering standardized as well as customised solutions. This applies to all industries and all companies regardless of their size.

**AGA – ideas become solutions.**