

 <b>ROTHENBERGER</b>	<b>Safety Data Sheet</b> according to 91/155/EC	Reviewed on: 05.05.2002
<b>Oxygen Bottle 110 bar</b>		Art. No.: 3.5741

<b>1. IDENTIFICATION OF THE SUBSTANCE /PREPARATION AND OF THE COMPANY /UNDERTAKING</b>	
<b>Trade name:</b>	OXYGENBOTTLE110BAR
<b>Company:</b>	ROTHENBERGERWERKZEUGEGBH INDUSTRIESTR7 65779KELKHEIM TEL.:06195/ 8001
<b>Chemical formula:</b>	$O_2$

<b>2. COMPOSITION/INFORMATION ON INGREDIENTS</b>	
<b>Substance/Preparation:</b>	SUBSTANCE
<b>Components/Impurities:</b>	CONTAINS NO OTHER COMPONENTS OR IMPURITIES WHICH WILL INFLUENCE THE CLASSIFICATION OF THE PRODUCT.
<b>CAS No.:</b>	0778244-7
<b>EEC No. (from EINECS):</b>	231-9569

<b>3. HAZARDS IDENTIFICATION</b>	
<b>Hazards identification:</b>	COMPRESSED GAS. OXIDANT. STRONGLY SUPPORTS COMBUSTION. MAY REACT VIOLENTLY WITH COMBUSTIBLE MATERIALS.

<b>4. FIRST – AID MEASURES</b>	
<b>Inhalation:</b>	CONTINUOUS INHALATION OF CONCENTRATIONS HIGHER THAN 75% MAY CAUSE NAUSEA, DIZZINESS, RESPIRATORY DIFFICULTY AND CONVULSION. REMOVE VICTIM TO UNCONTAMINATED AREA. KEEP VICTIM WARM AND RESTED. CALL A DOCTOR. APPLY ARTIFICIAL RESPIRATION IF BREATHING STOPPED.

<b>5. FIRE – FIGHTING MEASURES</b>	
<b>Specific hazards:</b>	SUPPORTS COMBUSTION. EXPOSURE TO FIRE MAY CAUSE CONTAINERS TO RUPTURE/EXPLODE. NON FLAMMABLE.
<b>Hazardous combustion products:</b>	NONE
<b>Suitable extinguishing media:</b>	ALL KNOWN EXTINGUISHANTS CAN BE USED.
<b>Specific methods:</b>	IF POSSIBLE, STOP FLOW OF PRODUCT. MOVE CONTAINER AWAY OR COOL WITH WATER FROM A PROTECTED POSITION.
<b>Special protective equipment for fire fighters:</b>	NONE.

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## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	EVACUATE AREA. ENSURE ADEQUATE AIR VENTILATION. ELIMINATE IGNITION SOURCES.
<b>Environmental precautions:</b>	TRY TO STOP RELEASE. PREVENT FROM ENTERING SEWERS, BASEMENTS AND WORKPITS, OR ANY PLACE WHERE ITS ACCUMULATION CAN BE DANGEROUS.
<b>Clean up methods:</b>	VENTILATE AREA.

## 7. HANDLING AND STORAGE

<b>Handling and storage:</b>  SUITABLE FOR THIS PRODUCT, IT'S SUPPLY PRESSURE AND TEMPERATURE. CONTACT	USE NO OIL OR GREASE. OPEN VALVES SLOWLY TO AVOID PRESSURE SHOCK. SEGREGATE FROM FLAMMABLE GASES AND OTHER FLAMMABLE MATERIALS IN STORE. SUCK BACK OF WATER INTO THE CONTAINER MUST BE PREVENTED. DO NOT ALLOW BACK FEED INTO THE CONTAINER. USE ONLY PROPERLY SPECIFIED EQUIPMENT WHICH IS YOUR GAS SUPPLIER'S IN DOUBT. KEEP AWAY FROM IGNITION SOURCES (INCLUDING STATIC DISCHARGES). REFER TO SUPPLIER'S CONTAINER HANDLING INSTRUCTIONS. KEEP CONTAINER BELOW 50°C IN A WELL VENTILATED PLACE.
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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Personal protection:</b>	DO NOT SMOKE WHILE HANDLING PRODUCT. WEAR SUITABLE HAND, BODY AND HEAD PROTECTION. WEAR GOGGLES WITH SUITABLE FILTER LENSES WHEN USE IS CUTTING / WELDING. AVOID OXYGEN RICH (> 21%) ATMOSPHERES. ENSURE ADEQUATE VENTILATION.
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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Molecular weight:</b>	32
<b>Melting point:</b>	- 219°C
<b>Boiling point:</b>	- 183°C
<b>Critical temperature:</b>	- 118°C
<b>Relative density, gas:</b>	1.1 (AIR=1)
<b>Vapour pressure 20°C:</b>	NOT APPLICABLE
<b>Solubility mg/l water:</b>	39 MG/L
<b>Appearance/Colour:</b>	COLOURLESS GAS
<b>Odour:</b>	NO ODOUR WARNING PROPERTIES
<b>Autoignition temperature:</b>	NOT APPLICABLE
<b>Flammability range:</b>	OXIDISER
<b>Other data:</b>	GAS / VAPOUR HEAVIER THAN AIR. MAY ACCUMULATE IN CONFINED SPACES, PARTICULARLY AT OR BELOW GROUND LEVEL.

## 10. STABILITY AND REACTIVITY

<b>Stability and reactivity:</b>	MAY REACT VIOLENTLY WITH COMBUSTIBLE MATERIALS. MAY REACT VIOLENTLY WITH REDUCING AGENTS. VIOLENTLY OXIDISES ORGANIC MATERIALS.
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## 11. TOXICOLOGICAL INFORMATION

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**General:** NOTOXICOLOGICALEFFECTSFROMTHISPRODUCT.

**12. ECOLOGICAL INFORMATION**

**General:** NOECOLOGICALDAMAGECAUSEDBYTHISPRODUCT.

**13. DISPOSAL CONSIDERATIONS**

**General:** TOATMOSPHEREINA WELLVENTILATEDPLACE.DONOTDISCHARGEINTOANYPLACE WHEREITSACCUMULATIONCOULDBE DANGEROUS.Disposal of waste gas cartridges and aerosols must be disposed of in compliance with the current national and local legislation.

In England and Wales, this is primarily The Hazardous Waste Regulations 2005 and in Scotland, The Special Waste Regulations 2005.

The implications of this legislation may require you to register your premises as a producer of hazardous waste and consign this waste in compliance with the above regulations. All waste from commercial activities is controlled waste and therefore, unless used by private individuals for no commercial gain, these articles must be disposed of as such.

The List of Wastes (England) Regulations provides the European Waste Codes (EWC) for these as:  
 16 05 04\* gases in pressure containers (including halons) containing dangerous substances

**14. TRANSPORT INFORMATION**

<b>ADR/RID:</b>	CLASS2 CODE 1 0
<b>IMDG:</b>	CLASS2.2
<b>IATA:</b>	CLASS2.2
<b>UN number and proper shipping name:</b>	UN 1072 SAUERSTOFF/ERDICHTET UN 1072 OXYGEN, COMPRESSED
<b>Packing instruction:</b>	P200
<b>Labelling according to ADR/RID:</b>	LABEL 2.2: NONFLAMMABLE, NONTOXIC GASES LABEL 5.1: OXIDIZING SUBSTANCES
<b>ADR/RID Hazard No.:</b>	25
<b>CEFC Tramcard No.:</b>	842
<b>Other transport information:</b>	AVOID TRANSPORT ON VEHICLES WHERE THE LOADSPACE IS NOT SEPARATED FROM THE HAZARDS OF THE LOAD AND KNOWS WHAT TO DO IN THE EVENT OF AN ACCIDENT OR AN EMERGENCY.
	BEFORE TRANSPORTING PRODUCT CONTAINERS ENSURE THAT THEY ARE FIRMLY SECURED AND:
	- CYLINDER VALVES CLOSED AND NOT LEAKING.
	- VALVE OUTLET CAP NUT OR PLUG (WHERE PROVIDED) IS CORRECTLY FITTED.
	- VALVE PROTECTION DEVICE (WHERE PROVIDED) IS CORRECTLY FITTED.
	- THERE IS ADEQUATE VENTILATION
	- COMPLIANCE WITH APPLICABLE REGULATIONS

**15. REGULATORY INFORMATION**

**Number in Annex I of Dir. 67/548:** 008001008

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<b>EC Classification:</b>	O; R8
<b>Labelling of cylinders:</b>	
<b>Symbols:</b>	O: OXIDISING
<b>Risk phrases:</b>	R8: CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE.
<b>Safety phrases:</b>	S17: KEEP AWAY FROM COMBUSTIBLE MATERIAL.

**16. OTHER INFORMATION**

ENSURE ALL NATIONAL AND LOCAL REGULATIONS ARE OBSERVED. ENSURE OPERATORS UNDERSTAND THE HAZARD OF OXYGEN ENRICHMENT BEFORE USING THIS PRODUCT IN ANY NEW PROCESS OR EXPERIMENT. A THOROUGH MATERIAL COMPATIBILITY AND SAFETY STUDY SHOULD BE CARRIED OUT. DETAILS GIVEN IN THIS DOCUMENT ARE BELIEVED TO BE CORRECT AT THE TIME OF GOING TO PRESS. WHILE PROPER CARE HAS BEEN TAKEN IN THE PREPARATION OF THIS DOCUMENT, NO LIABILITY FOR INJURY OR DAMAGE RESULTING FROM ITS USE CAN BE ACCEPTED.