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SAFETY DATA SHEET

in accordance with Regulation (EC) 1907/2006 (REACH) amended with Commission Regulation(EU) 2015/830

■ <u>V7</u> – amendments in this revision ■

1.1 Product identifier		
Substance name		OXYGEN GASEOUS, TECHNICAL GRADE
EC number:		231-956-9
CAS number:		7782-44-7
Index number:		008-001-00-8
REACH registration number		This substance is exempted from Registration according to the provisions of Article 2(7)(b) and Annex V of REACH
NEOCHIM PLC code		20-01
1.2 Relevant identified uses of the s	ubsta	ance or mixture and uses advised against
Relevant identified uses	be W	t Industrial site and by professional workers. Risk assessment to e performed prior use. /elding, cutting, heating and brazing. Shield gas for welding rocesses.
Uses advised against:		ocesses. Onsumer
1.3 Details of the supplier of the saf	etv da	ata sheet
Manufacturer:		NEOCHIM PLC
Address:		East Industrial Zone, Himkombinatska Str. 6403 Dimitrovgrad, Bulgaria
■ <u>V7</u> Tel.: URL website:		+359 391 65 205 a http://www.neochim.bg
E-mail:		neochim@neochim.bg
e-mail address of competent person responsible for the SDS		reach-neochim@neochim.bg
1.4 Emergency telephone number		
■ <u>V7</u> National Toxicology Center Hosp for Active Medical Treatment and Emergency Medicine "N.I.Pirogov"	oital	+ 359 2 9154 233 24/24 h 7/7 d a
SECTION 2: HAZARDS IDENTIFICA	TION	
Physical and chemical hazards		Odourless, colourless, inflammable gas. Oxidiser. It supports combustion and increases risk of fire and explosion when contact with combustible and flammable materials. Not tox Continuous inhalation of high concentrations may cause couland lungs infection. Use and store at a temperature respective.
2.1 Classification of the substance	or mix	xture
Classification of the substance or mix date of the issue of the document	ture a	according to Regulation (EC) 1272/2008 and its amendments at the



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heated						
2.2 Label elemen	ts					
Labelling in accordocument	rdance with Reg	gulation 1272/	/2008 (CI	_P) and its ame	ndments at th	ne date of the issue of the
Hazard pictogram	(s):		<			
Signal word			Danger			
Hazard statement(s):	H270 H280		-	se or intensify f		xplode if heated
Precautionary statement(s):			In case of fire: Stop leak if safe to do so. Keep valves and fittings free from oil and grease. Keep away from clothes and other combustible materials. Protect from sunlight. Store in well-ventilated place. Keep at a temperatures not exceeding 50 °C.			
2.3 Other hazard	s - Not known		<u>'</u>			<u> </u>
PBT or vPvB criteria.			The substance is not assessed as persistent, bioaccumulative or toxic (PBT) or very persistent and very bioaccumulative (vPvT).		BT) or very persistent and	
Endocrine disrupt	ing properties		Data lacking			
SECTION 3: COM	IPOSITION/INF	ORMATION	ON ING	REDIENTS		
<u>□ V7</u> 3.1 Substan	ces					
Index №	Name		Conten	t, % (v/v)	SCL, M	- factor/ATE
008-001-00-8	Oxygen		міп 98.	5	- 0	
SECTION 4: FIRS	SECTION 4: FIRST- AID MEASURES					
4.1 Description of	of first aid meas	sures				
			essential. If unconscious, place casualty in a recovery position I sideways to avoid choking.			
h co a		Immediately move the casualty to fresh air if adverse effects occur (e.g. headache, dizziness, respiratory tract irritation, drowsiness, poor coordination, nausea, fever, trouble the soul, fainting). If not breathing apply artificial respiration. If breathing is difficult qualified person to apply oxygen Seek medical advice immediately.				
- following skin contact: No adv		No adverse	erse effects expected.			
- following eye co	ntact:	No adverse	o adverse effects expected.			
- following ingesti	on:	Not conside	Not considered a potential route of exposure.			
· ·		The first aider must observe and apply all collective and personal protective equipment.				



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4.2 Most important symptoms and effects, both acute and delayed

Nausea, dizziness, difficulty breathing and convulsions may occur due to prolonged inhalation of concentrations above 75%.

4.3 Indication of any immediate medical attention and special treatment needed

The doctor should be informed that the victim suffers from hyperoxia. Apply symptomatically treatment.

SECTION 5: FIRE - FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:	Use appropriate extinguishing media for surrounding fire. Cool tanks and bottles with water from a protected area because exposure to fire tanks may rupture/explode
Unsuitable extinguishing media :	Not applicable

5.2 Special hazards arising from the substance or mixture

Strong oxidiser, reacts violently with combustible and reducing agents, risk of fire and explosion. Especially dangerous contact with hydrocarbons.

5.3 Advice for firefighters

Heat resistant personnel protective equipment, gloves, boots and self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personal

Protective equipment:

Wear suitable personal protective equipment (listed in Section 8 on the safety data sheet)

Emergency procedures:

All activities should be carried out by well-trained staff. Do not allow untrained and unprotected personnel in the area or personnel not involved in the elimination of an incident and its consequences.

Eliminate all possible sources of fire and provide adequate ventilation. Stop the leakage if possible. Isolate every leaking bottle. Prevent entry into sewers, basements, and other areas where accumulation may be hazardous. Stay upwind. Act in accordance with emergency plan

6.1.2 For emergency responders

Especially resistant to high temperature clothing, gloves, boots, self-contained breathing apparatus .

6.2 Environmental precautions

Try to stop leaking without risk. Inform local authority if some environmental compartment have been contaminated.

6.3 Methods and material for containment and cleaning up

Provide adequate ventilation.

6.4 Reference to other sections

See Section 8 for personal protective equipment and Section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Pritective measures:	Only experienced and properly instructed persons should handle
	gases under pressure. Store containers according to national
	legislation. Keep equipment clean of grease and oil. Use only
	approved for oxygen lubricants and seals. Use only properly
	specified equipment which is suitable for this product, its supply



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	temperature and pressure. Comply with the residual pressure requirement of 0.05MPa. Suck back of water into the container must be prevented Protect cylinders from damage. Use a suitable handcart or trucks to move the bottles - no drag, no roll, no skating, do not knock the bottles. Never lift cylinders without safety caps - cap is intended solely to protect the valve. Never put objects inside the cap (e.g. wrench, screwdriver and others) - this can damage the valve and can cause gas leaking. Open valve slowly to avoid pressure shock. The valve of the container is closed after each use and after emptying the bottle, even if it is connected to the appliance. Do not transfer gas from one bottle to another. If the valve opens harder, stop work and call their supplier. Keep labels. When working provide the still gripping the bottle to a stationary object or cart. Do not use a fire or electric heater to increase the pressure in the containers.
7.1.2 Advice on general occupation hygiene:	Work under a high standard of personal hygiene. Do not eat, drink or smoke in work areas. Wash hands after handling with the product. Remove clothing and protective equipment before visiting the catering.

7.2 Conditions for safe storage, including any incompatibilities

Oxygen cylinders shall not be stored in one room with other pressure equipment for explosive, extremely flammable, highly flammable or flammable fluids.

Store:

- away from sources of ignition and heat;
- separate from flammable gases and other combustible materials in the store;
- in a well ventilated place at a temperature not exceeding 50 °C.

Keep away from direct sunlight. Full and empty containers should be stored separately and should be well secured. Full bottles with support are stored in the warehouses in the vertical position. To prevent falls, the bottles are placed in specially prepared cages, or enclosed with barrier. Empty bottles without support can be stored horizontally on wooden frames or racks. Outdoor, bottles with support can be stacked one above the other into regular geometric shapes up to 1.5 m high, placing wooden boards, ropes, or rubber between the horizontal rows. With such an arrangement, the valves of the cylinders are directed in one direction and measures are taken to prevent the uncontrolled movement of the cylinders. Bottles without trays must be stored horizontally, on wooden frames or shelves up to 1.5 m high or in pallets.

Gas cylinders should be at least 1 m away from heating radiators. Doors and windows of the oxygen storage should be opened outwards. The floors of the warehouses should be flat, with no slippery surfaces and material to exclude the possibility of sparks being struck. The distance between bottles and heat sources intended to heat indoor storage must be at least 1 meter. Display "No smoking and no light fire " in the areas of storage and usage of oxygen. Do not transport compressed gas cylinders in a confined space (e.g. luggage-carrier of a car).

<u>■ V7</u> 7.3 Specific end use(s): no information		
SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION		
8.1 Control parameters		
Regulated occupational exposure limit values:		No official data available
8.2 Exposure controls		
8.2.1 Appropriate engineering controls:		
Appropriate engineering controls:		e adequate ventilation is good industrial practice. Avoid oxygen ion (> 21 %). Pressure systems should be periodically inspected



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for lea	aks.	
8.2.2 Individual protection measures, su	ich as personal protective equipment	
Depending on the risk and on the work performed, adequate protective equipment should be selected and approved by a specialist Please follow the supplier's instructions about conditions of use and expiration date.		
Respiratory protection:	Provide ventilation in areas where there is danger of oxygen saturation	
Hand protection:	Protective gloves (EN 388)	
Eye protection:	Chemical goggles (EN 166)	
Skin and body protection:	Working clothes and boots	
<u>V7</u> Thermal hazard:	No precautionary measures are necessary.	
8.2.3 Environmental exposure controls:	The product does not affect the environment.	
SECTION 9: PHYSICAL AND CHEMICAL	PROPERTIES	
9.1 Information on basic physical and cl	hemical properties	
a) Physical state	Gas (at 20°C and 101,3 kPa)	
b) Colour	Colourless	
c) Odour	Odourless	
d) Melting/Freezing point	- 218,4 °C	
e) Boiling point	- 182,9 °C	
f) Flammability	Non flammable	
g) Lower and upper exposure limit	Not applicable	
h) Flash-point	Not applicable	
i) Auto-ignition temperature	Not applicable	
j) Decomposion temperature	Not known	
k) pH	Not applicable	
I) Viscosity	Not applicable	
m) Solubility	Slightly	
n) Partition coefficient n-octanol/water:	Not applicable	
o) Vapour pressure:	Not applicable	
p) Density and/or relative density	Not applicable	
q) Relative vapour density(air = 1)	1.1	
r) Particle characteristics	Not applicable	
9.2 Other information		
9.2.1 Information with regard to physical ha	azard classe	
a) Explosives	Not explosive	
b) Flammable gases	Not flammable gas	
c) Oxidising gases	Oxidising gases, hazard category 1 (Oxid. Gas 1),	
d) Gases under pressure	Gases under pressure: compressed gases (Press. Gas.),	
9.2.2 Other safety characteristics	<u> </u>	



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Gas / vapor heavier than air. Molecular weight:32

Critical temperature -118.6 °C, Critical preassure: 50 атмв.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended storage and handling conditions (see section 7, handling and storage).

10.2 Chemical stability

Stable under recommended storage and handling conditions (see section 7, handling and storage).

10.3 Possibility of hazardous reactions

Supports combustion.

10.4 Conditions to avoid

High temperatures and limited or confined spaces where gas may be accumulated.

10.5 Incompatible materials

Oils, grease, fats and combustible materials

10.6 Hazardous decomposition products

None

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) №1272/2008 Not known toxicological effects from this product

Based on available data, the classification criteria are not met
Based on available data, the classification criteria are not met
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Based on available data, the classification criteria are not met

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties - data lacking

■ V7 11.2.2 Other information - data lacking ■

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	not toxic and does not pollute the soil and aquatic environment.
12.2 Persistence and degradability	No ecological damages causes by this product



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12.2 Bioaccumulative potential	The product does not show any bioaccumulation properties.	
12.4 Mobility in soil	Unlikely to cause pollution due to its high volatility	
12.5 Results of PBT and vPvB assessment	No data available	
12.6 Endocrine disrupting properties	Data lacking 	
12.7Other adverse effects	No known effects from this product	
■ <u>V7</u> 12.8 Additional information -	Data lacking	
SECTION 13: DISPOSAL CONSIDERATI	ons	
Waste treatment methods:	Discharge only in a well-ventilated place. Do not discharge into any place where its accumulation could be dangerous. Avoid discharge of large quantities into the atmosphere.	
Package waste disposal:	Bring back the bottle to the supplier, as comply with the residual pressure of 0.05 MPa.	

SECTION 14: TRANSPORT INFORMATION

14.1 UN No.

ADR/RID - 1072

14.2 UN proper shipping name -

ADR/RID - OXYGEN, COMPESSED

14.3 Transport hazard class(es) - 2

14.4 Packing group: ADR/RID - not applicable

Labelling ADR/RID





2.2: Non flammable, non toxic gas + 5.1 Oxidising substances, (+13RID)

ADR/RID Hazard identification number: - 25

ADR/RID Classification code: - 10

14.5 Environmental hazards - none

14.6 Special precautions for users

The person transporting the product must be trained and know how to respond to an accident.

<u>v7</u> 14.7 Maritime transport in bulk according to IMO instruments

- not applicable **a**



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SECTION 15: REGULATORY INFORMATION					
15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture:					
EU regulations Regulation EC 1907/2006 (REACH), Regulation EC 1272/2008 (CLP Directive 2012/18/EU (Seveso III), Quantity 1) 200 t; Quantity 2) - 200 * Regulations / legislation and amendments to the date of issue of the document are indicated					
15.2 Chemical Safety Assessment	Does not required for this product.				

16. OTHER INFORMATION

<u>Indication of changes:</u> Changes of the last version are highlighted with <u>V7...</u> . This version replaces all previous versions.

The information above is on the basis of our knowledge about the product and represents the data currently available to us t the moment of safety data sheet issue. This document is intended as guidance for the appropriate precautionary handling with the product by a properly trained person using this product, and does not legally bind in no way manufacturer with guarantee for specific properties, qualities and applications.

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