SAFETY DATA SHEET

◘ **V4** in accordance with Regulation (EC) 1907/2006 (REACH) amended with Commission Regulation(EU) 2015/830 ◘

◘ **V4 –** *amendments in this revision* ◘

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING	
1.1 Product identifier	
Trade name	OXYGEN GASEOUS, TECHNICAL GRADE
EC number:	231-956-9
REACH registration number	Oxygen is exempted from Registration obligation (Annex IV of REACH)
CAS number:	7782-44-7
Index number:	008-001-00-8
CLP notification number:	02-2119503777-34
NEOCHIM PLC code	20-01
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Uses: in the manufacture of synthetic liquid fuels, lubricants, nitric acid, sulfuric acid, etc; in the steel production; in welding and cutting of metals	
Uses advised against: Not known	
1.3 Details of the supplier of the safety data sheet	
Manufacturer: Address: Tel.;fax: URL website: Email:	NEOCHIM PLC East Industrial Zone, Himkombinatska Str. 6403 Dimitrovgrad, Bulgaria +359 391 65 205; +359 391 60 555 http:/ / www.neochim.bg neochim@neochim.bg
Company e-mail for SDS	pto@neochim.bg
1.4 Emergency telephone number	
National Toxicology Center - Pirogov NEOCHIM PLC	+359 2 915 44 09 24/24 h 7/7 d +359 2 809 20 30 24/24 h 7/7 d
SECTION 2: HAZARDS IDENTIFICATION	
Physical and chemical hazards	Odourless, colourless, inflammable gas. Oxidiser. It supports combustion and increases risk of fire and explosion when in contact with combustible and flammable materials. Not toxic. Continuous inhalation of high concentrations may cause cough and lungs infection. Use and store at a temperature not exceeding 50°C .
2.1 Classification of the substance or mixture	
◘ **V4** Classification of the substance or mixture according to Regulation (EC) 1272/2008 and its amendments at the date of the issue of the document ◘	
Oxidising gases, hazard category 1 (Oxid. Gas 1), H270- May cause or intensify fire; oxidiser. Gases under pressure: compressed gases (Press. Gas.), H280 - Contains gas under pressure; may explode if heated.	

2.2 Label elements

◘ **V4** Labelling in accordance with Regulation 1272/2008 (CLP) and its amendments at the date of the issue of the document ◘

Hazard pictogram(s):		
Signal word		Danger
Hazard statement(s):	H270 H280	May cause or intensify fire; oxidiser Contains gas under pressure; may explode if heated
Precautionary statement(s):	P370+376 P244 P220 P410+403 P411	In case of fire: Stop leak if safe to do so. Keep valves and fittings free from oil and grease. Keep away from combustible materials. Protect from sunlight. Store in well-ventilated place. Store at temperatures not exceeding 50° C.

2.3 Other hazards

Not known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Index №	Name	Content, % (w/w)
008-001-00-8	Oxygen	min 98.5

SECTION 4: FIRST- AID MEASURES

4.1 Description of first aid measures

- general notes	Speed is essential. If unconscious, place casualty in a recovery position with head sideways to avoid choking.
- following eye contact:	No adverse effects expected.
- following contact:	No adverse effects expected.
- following ingestion:	Not considered a potential route of exposure.
- following inhalation:	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. Seek medical advice immediately.

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

Immediately evacuate personnel not occupied with the accident from the area. Eliminate all possible sources of fire and provide adequate ventilation. Stop the leak if safe to do so. Isolate every releasing bottle.
Personal protective equipment that should be available and used: gloves, protective goggles and filtering gas mask.

6.2 Environmental precautions

Stop the leak without risk. Prevent entry into confined spaces where its accumulation could be dangerous.

6.3 Methods and material for containment and cleaning up

Stop leak without risk. 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

Precautions for safe handling	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 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.

Precautions for safe handling	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

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.

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. 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 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).

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Regulated occupational exposure limit values:	No official data available

8.2 Exposure controls

Appropriate engineering controls:	Provide adequate ventilation is good industrial practice. Avoid oxygen saturation (> 21 %)
Environmental exposure controls:	The product does not affect the environment.

Individual protection measures, such as personal protective equipment

Respiratory protection:	Provide ventilation in areas where there is danger of oxygen saturation
Hand protection:	Protective gloves
Eye protection:	Chemical goggles
Skin and body protection:	Working clothes and boots

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Colourless gas
Odour:	Odourless
Melting/Freezing temperature:	- 218,4 °C
Boiling temperature:	- 182,9 °C
Flash-point:	Not applicable (gas)
Flammability:	Non flammable gas
Explosive properties:	Not explosive
Oxidizing properties:	Strong oxidiser

Vapour pressure:	Not applicable
Relative density, gas (air = 1):	1,42934 kg/m^3
Solubility in water:	Slightly
Partition coefficient n-octanol/water:	Not applicable (gas)
Viscosity:	Not applicable (gas)
Conductivity:	0,02674 W/(m K)

9.2 Other information

No data availbale.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Oxidizer

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 toxicological effects

Not known toxicological effects from this product

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Oxygen is not toxic and does not pollute the soil and aquatic environment.

12.2 Bioaccumulative potential

The product does not show any bioaccumulation properties.

SECTION 13: DISPOSAL CONSIDERATIONS

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

UN No. 1072

Labelling ADR

2.2: Non flammable, non toxic gas + 5.1 Oxidising substances

ADR/RID Hazard identification number: 25

Proper shipping name: Oxygen,

ADR Class: 2

ADR/RID Classification code: 1O; LQ0

Packing group: P200

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) - 2000 t * 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

Indication of changes: Changes of the last version are highlighted with ◘ **V4...**◘ . 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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