


## 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			
<b>1.1 Product identifier</b>			
Trade name	NITROGEN GASEOUS, TECHNICAL GRADE		
EC number:	231-783-9		
REACH registration number	Nitrogen is exempted from Registration obligation (Annex IV of REACH)		
CAS number:	7727-37-9		
CLP notification number:	02-2119683711-35-0000		
NEOCHIM PLC code	10-01		
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>			
Uses: thermal processing of metals and alloys; a protective environment at welding and as an inert medium for the transfer of flammable liquids under pressure; blowing and inertness of reactors and tanks; thermoregulation and cooling of food; shielding gas in the packaging of food, medical and cosmetic products; pressurized gas in the plastics			
Uses advised against: No information available			
<b>1.3 Details of the supplier of the safety data sheet</b>			
Manufacturer:	NEOCHIM PLC		
Address:	East Industrial Zone, Himkombinatska Str. 6403 Dimitrovgrad, Bulgaria		
Tel.;fax:	+359 391 65 205; +359 391 60 555		
URL website:	<a href="http://www.neochim.bg">http://www.neochim.bg</a>		
Email:	neochim@neochim.bg		
Company e-mail for SDS	pto@neochim.bg		
<b>1.4 Emergency telephone number</b>			
National Toxicology Center - Pirogov	+359 2 915 44 09	24/24 h	7/7 d
NEOCHIM PLC	+359 2 809 20 30	24/24 h	7/7 d
SECTION 2: HAZARDS IDENTIFICATION			
<b>The most important adverse effects:</b> Gas under pressure. Can cause suffocation at high concentrations due to lack /deficit/ of oxygen. Inhaling the gas can cause headaches, dizziness, vertigo, nausea and loss of coordination. Prolonged inhalation can lead to unconsciousness.			
<b>2.1 Classification of the substance or mixture</b>			
■ V4 Classification in accordance with Regulation 1272/2008 (CLP) and its amendments at the date of the issue of the document ■.			
Gases under pressure: compressed gases (Press. Gas.), H280 - Contains gas under pressure; may explode if heated.			
<b>2.2 Label elements</b>			
■ 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		Warning
Hazard statement(s):	H280	Contains gas under pressure; may explode if heated
Precautionary statement(s):	P410+403 P411	Protect from sunlight. Store in well-ventilated place. ■ <b>V4</b> Store at temperatures not exceeding 50° C ■.
<b>2.3 Other hazards</b>		
Not known		
<b>SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS</b>		
<b>3.1 Substances</b>		
CAS №	Name	Content, % (w/w)
7727-37-9	Nitrogen	min 99.5
<b>SECTION 4: FIRST- AID MEASURES</b>		
<b>4.1 Description of first aid measures</b>		
- 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 skin contact:	No adverse effects expected.	
- following ingestion:	Not considered a potential route of exposure.	
- following inhalation:	Immediately move the casualty to fresh air. If not breathing apply artificial respiration. If breathing is difficult apply oxygen. Seek medical advice immediately	
<b>4.2 Most important symptoms and effects, both acute and delayed</b>		
Due to lack of oxygen, nitrogen inhalation can cause dizziness, vertigo, nausea, and loss of coordination. Prolonged inhalation can lead to unconsciousness.		
<b>4.3 Indication of any immediate medical attention and special treatment needed</b>		
Give oxygen if breathing is difficult. Implement general supportive measures and treat symptomatically.		
<b>SECTION 5: FIRE - FIGHTING MEASURES</b>		
<b>5.1 Extinguishing media</b>		
Suitable extinguishing media:	Use appropriate extinguishing media for surrounding fire.	
Unsuitable extinguishing media :	Not applicable (nitrogen is not flammable and does not support combustion)	
<b>5.2 Special hazards arising from the substance or mixture</b>		
The heat from the fire can lead to a rapid increase a pressure in the cylinders and tanks, which can cause their destruction, accompanied by explosion. Move if it is safe or cool bottles and tanks by spraying water from a safe distance.		

<b>5.3 Advice for firefighters</b>	
Heat resistant personnel protective equipment, gloves, boots and self-contained breathing apparatus.	
<b>SECTION 6: ACCIDENTAL RELEASE MEASURES</b>	
<b>6.1 Personal precautions, protective equipment and emergency procedures</b>	
Immediately evacuate personnel not occupied with the accident from the area. Stop the leak if safe to do so. Isolate every releasing bottle.	
<b>6.1.1 For non-emergency personnel</b>	
Personal protective equipment that should be available and used: gloves, protective goggles and filtering gas mask.	
<b>6.1.2 For emergency responder</b>	
Heat resistant personnel protective equipment, gloves, boots and self-contained breathing apparatus.	
<b>6.2 Environmental precautions</b>	
Do not required special measures	
<b>6.3 Methods and material for containment and cleaning up</b>	
Provide adequate ventilation.	
<b>6.4 Reference to other sections</b>	
See section 8 for personal protective equipment and section 13 for waste disposal.	
<b>SECTION 7: HANDLING AND STORAGE</b>	
<b>7.1 Precautions for safe handling</b>	<p>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 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.</p> <p>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 (eg wrench, screwdriver, etc.) - this can damage the valve. Open valve slowly to avoid pressure shock. If the valve opens difficult, stop and contact your supplier. After removing the bottle from the installation, re-insert the valve cap and the bottle. After each use, and after emptying the bottle, the valve is closed even if it is connected to the facility. 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.</p>
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.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	
Store away from sources of ignition and heat; segregate from flammable gases and other combustible materials in the store; keep in a well ventilated place at a temperature not exceeding $\square$ V4 50 °C $\square$ ; keep away from direct sunlight. Full and empty containers should be stored separately.	
<b>SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION</b>	
<b>8.1 Control parameters</b>	
Regulated occupational exposure limit values:	No official data available

<b>8.2 Exposure controls</b>	
Appropriate engineering controls:	Providing natural and/or forced ventilation is good industrial practice. Do not release large quantities of the substance in confined spaces. Pressure systems should be periodically checked for omissions.
Environmental exposure controls:	The product does not affect the environment.
<b>Individual protection measures, such as personal protective equipment</b>	
Respiratory protection:	■ V4 Self-contained breathing apparatus or line with compressed air and mask ■
Hand protection:	Protective gloves
Eye protection:	Chemical goggles (EN 166 is recommended)
Skin and body protection:	Working clothes and boots
<b>SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES</b>	
<b>9.1 Information on basic physical and chemical properties</b>	
Appearance:	Colourless gas
Odour:	Odourless
pH	Not applicable
Melting/Freezing temperature:	- 210°C
Boiling temperature:	- 196°C
Flash-point:	Not applicable (gas)
Flammability:	Non flammable gas
Explosive properties:	Not explosive
Oxidizing properties:	Not oxidizer
Vapour pressure:	Not applicable
Relative density, gas (air = 1):	0.967
Solubility in water at 20°C and 1bar :	20 mg/l
Partition coefficient n-octanol/water:	Not applicable (gas)
Viscosity:	Not applicable (gas)
Conductivity:	0,02598 W/(m K)
<b>9.2 Other information</b>	
Critical temperature: -146.9°C Critical pressure:34 bar	
<b>SECTION 10: STABILITY AND REACTIVITY</b>	
<b>10.1 Reactivity</b>	
Stable under recommended storage and handling conditions (see section 7, handling and storage).	
<b>10.2 Chemical stability</b>	
Stable under recommended storage and handling conditions (see section 7, handling and storage).	
<b>10.3 Possibility of hazardous reactions</b>	
There are no known hazardous reactions.	

<b>10.4 Conditions to avoid</b>	
High temperatures and confined spaces.	
<b>10.5 Incompatible materials</b>	
Under certain conditions, the nitrogen may be reacted with lithium, titanium (over 800°S) and magnesium to form nitrides. At high temperatures can also react with oxygen and hydrogen.	
<b>10.6 Hazardous decomposition products</b>	
None	
<b>SECTION 11: TOXICOLOGICAL INFORMATION</b>	
<b>11.1 Information on toxicological effects</b>	
Not known toxicological effects of this product	
<b>SECTION 12: ECOLOGICAL INFORMATION</b>	
<b>12.1 Toxicity</b>	
Nitrogen is not toxic and does not pollute the soil and water. It is an ingredient of the air.	
<b>12.2 Bioaccumulative potential</b>	
The product does not show any bioaccumulation properties.	
<b>SECTION 13: DISPOSAL CONSIDERATIONS</b>	
Waste treatment methods:	Do not discharge into any place where its accumulation could be dangerous.
Package waste disposal:	Bring back the bottle to the supplier, as comply with the residual pressure of 0.05 MPa.
<b>SECTION 14: TRANSPORT INFORMATION</b>	
<b>UN No.</b>	<b>1066</b>
<b>Labelling ADR</b>	 2.2: Non flammable, non toxic gas
<b>ADR/RID Hazard identification number:</b>	<b>20</b>
<b>Proper shipping name:</b>	<b>NITROGEN, COMPRESSED</b>
<b>ADR Class:</b>	<b>2</b>
<b>ADR/RID Classification code:</b>	<b>1A</b>
<b>Tunnel restrictions:</b>	<b>E</b>
<b>Packing group:</b>	<b>P200</b>
Additional information: Avoid transport on vehicles where the load area is not separated from that of the driver. He should be familiar to the potential hazard of the cargo and how to react in case of an accident. Before transportation make sure bottles are secured.	

**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)  <u>* Regulations / legislation and amendments to the date of issue of the document are indicated</u>
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<b>15.2 Chemical Safety Assessment</b>	Does not required for this product
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**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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