SAFETY DATA SHEET

Pro Nitrogen, Pro OFN

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830 AS AMENDED BY UK REACH REGULATIONS SI 2019/758

Date of issue: 15/10/2025
Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name	Pro Nitrogen, Pro OFN
CAS No.	7727-37-9
EC No.	231-783-9
REACH Registration No.	This substance is exempted from Registration according to the provisions of Article 2(7)a and Annex IV of REACH

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	**Industrial and professional**. Perform risk assessment prior to use. Aerosol propellant. Balance gas for mixtures. Blanketing gas. Calibration gas. Carrier gas. Fire suppressant gas. Food packaging gas. Inerting gas. Laboratory use. Laser gas. Pressure head gas, operational assist gas in pressure systems. Process gas. Purge gas. Test gas. Beverage applications.
Uses advised against	Anything other than the above.

1.3 Details of the supplier of the safety data sheet

Company Identification	Pro Gases UK 28 Forth Street, Bootle, Liverpool, United Kingdom, L20 8JW
Telephone	0151 922 1118
E-mail (competent person)	info@progasesuk.com

1.4 Emergency Telephone Number

Emergency Phone No.	+44 (0) 127356 9048	Available 24/7
Language(s) spoken:	English	

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 The retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain

Press. Gas (Comp.); H280

2.2 Label elements

According to the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain

Product description: Pro Nitrogen, Pro OFN

Hazard Pictogram(s)

Signal Word(s) WARNING

Hazard Statement(s) H280: Contains gas under pressure; may explode if heated.

Precautionary Statement(s) P410+P403: Protect from sunlight. Store in a well-ventilated place.

2.3 Other hazards Asphyxiant in high concentrations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

SUBSTANCE	CAS No.	EC No.	REACH Registration No.	%W/W
Nitrogen	7727-37-9	231-783-9	Exemptions apply	100

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Self-protection of the first aider: Asphyxiant in high concentrations. Avoid inhalation of high concentrations of gas. Eliminate sources of ignition. Use personal protective equipment as required. The vapour is heavier than air; beware of pits and confined spaces. If it is suspected that fumes are still present, the responder should wear an appropriate mask or self-contained breathing apparatus.

Inhalation: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical advice/attention if you feel unwell.

Skin contact: No hazard expected under normal conditions of use. Get medical advice/attention if you feel unwell.

Eye contact: Not irritating to eyes. Get medical advice/attention if you feel unwell.

Ingestion: Oral exposure is considered to be not relevant. Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed In high concentration the gas may cause a suffocation. Victim may not be aware of asphyxiation.

4.3 Indication of any immediate medical attention and special treatment needed Treat symptomatically.

Notes to a physician: The ingestion of significant quantities may cause delayed pulmonary oedema.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: As appropriate for surrounding fire. Foam, CO2 or dry powder

Unsuitable extinguishing media: Do not use water jet. Direct water jet may spread the fire.

5.2 Special hazards arising from the substance or mixture Not flammable. Does not support combustion. The vapour is heavier than air; beware of pits and confined spaces.

	Compressed gas	Contains gas under pressure; may explode if heated. Sealed containers may rupture explosively if hot. Do not pierce or burn, even after use.
5.3	**Advice for firefighters**	Fight fire with normal precautions from a reasonable distance. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Keep containers cool by spraying with water if exposed to fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	**Personal precautions, protective equipment and emergency procedures**	Shut off source of leak if safe to do so. Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. In case of inadequate ventilation wear respiratory protection. Wear suitable protective clothing. Contaminated clothing should be thoroughly cleaned. The vapour is heavier than air; beware of pits and confined spaces.
6.2	**Environmental precautions**	Presents no hazard to the environment. Avoid release to the environment.
6.3	**Methods and material for containment and cleaning up**	Only trained and properly protected personnel must be involved in clean-up operations. Ensure adequate ventilation. Isolate the area and allow gas to disperse.
	Small scale	Allow gas to disperse naturally in a well-ventilated area. Prevent access until ventilation has restored safe oxygen level. (>19.5% O_2).
	Large scale	Evacuate area. Fight fire remotely due to the risk of explosion. Notify police and fire brigade as soon as possible. Prevent access until ventilation has restored safe oxygen level. (>19.5% O_2).
6.4	**Reference to other sections**	See sections 8 and 13

SECTION 7: HANDLING AND STORAGE

7.1	**Precautions for safe handling**	The vapour is heavier than air; beware of pits and confined spaces. Avoid inhalation of high concentrations of gas. Ensure adequate ventilation. In case of inadequate ventilation wear respiratory protection. Do not open valve until connected to equipment prepared for use. Do not eat, drink or smoke at the work place. Wash contaminated clothing before reuse. Wash hands before breaks and after work.
7.2	**Conditions for safe storage, including any incompatibilities**	Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. Keep container in an upright position.
	Storage temperature	Keep cool. Protect from sunlight. Do no expose to temperatures exceeding 50 °C.
	Incompatible materials	Isolate from reducers and flammable/ combustible materials etc in storage.
7.3	**Specific end use(s)**	See Section: 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	**Control parameters**	
8.1.1	**Occupational exposure limits**	Not assigned.
8.1.2	**Biological limit value**	Not established.
8.1.3	**PNECs and DNELs**	Not established.
8.2	**Exposure controls**	
8.2.1	**Appropriate engineering controls**	Provide adequate ventilation, including appropriate local extraction if dusts, fumes or vapours are likely to be evolved. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources.
8.2.2	**Individual protection measures, such as personal protective equipment**	Do not breathe gas. Fuels are typically used, transferred and transported in closed systems. Keep good industrial hygiene. Do not eat, drink or smoke at the work place.
	Eye/ face protection	Not normally required

Recommended:
Use of liquid gas- Wear eye protection with side protection (EN166). Eyewash bottles should be available.

Skin protection

Not normally required

Use of liquid gas- **Hand protection**: Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Suitable materials: Butyl rubber, Nitrile rubber.

Body protection: Apron or other light protective clothing, boots and plastic or rubber gloves.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.
Recommended: BS EN 14387:2004+A1

Thermal hazards

Skin contact: Frostbite (cold burn).

8.2.3 Environmental exposure controls

Presents no hazard to the environment. Avoid release to environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Colourless Compressed gas
Odour	Odourless
Odour threshold	Not available
pH	Not applicable
Melting point/freezing point	-210.01 °C
Initial boiling point and boiling range	-196 °C
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not flammable
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	No data available
Vapour Density (Air=1)	0.97
Relative density	0.8
Solubility(ies)	Water solubility: 20 mg/l
Partition coefficient: n-octanol/water	0.67
Auto-ignition temperature	Not applicable
Decomposition temperature	Not established
Viscosity	Not applicable
Explosive properties	Not explosive
Oxidising properties	Not oxidising.

9.2 Other information

None Known

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Chemically inert noble gas**.** Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazard expected under normal conditions of use.

10.4 Conditions to avoid

Keep away from heat and sources of ignition. Sealed containers may rupture explosively if hot. Use only in well-ventilated areas. In high concentration the gas may cause a suffocation. Victim may not be aware of asphyxiation.

10.5 Incompatible materials

No known incompatible materials.

10.6	**Hazardous decomposition products**	Does not decompose under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: LD50 >2000 mg/kg bw
Acute toxicity - Inhalation	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: LC50 > 20,000 ppm (Gases)
Acute toxicity - Skin contact	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: LD50 >2000 mg/kg bw
Skin corrosion/irritation	Based upon the available data, the classification criteria are not met.
Serious eye damage/irritation	Based upon the available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity	Based upon the available data, the classification criteria are not met.
Carcinogenicity	Based upon the available data, the classification criteria are not met.
Reproductive toxicity	Based upon the available data, the classification criteria are not met.
STOT - Single Exposure	Based upon the available data, the classification criteria are not met.
STOT - Repeated Exposure	Based upon the available data, the classification criteria are not met.
Aspiration hazard	Based upon the available data, the classification criteria are not met.

11.2	**Other information**	None.

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	Based upon the available data, the classification criteria are not met. LC50 (Fish): > 1000 mg/l/96h
12.2	**Persistence and degradability**	No data available
12.3	**Bioaccumulative potential**	No data available
12.4	**Mobility in soil**	No data available
12.5	**Results of PBT and vPvB assessment**	Not classified as PBT or vPvB.
12.6	**Other adverse effects**	None Known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	Disposal should be in accordance with local, state or national legislation.
	Waste classification according to Directive 2008/98/EC (Waste Framework Directive)	Not hazardous
13.2	**Additional information**	Pressurized container: Do not pierce or burn, even after use.

SECTION 14: TRANSPORT INFORMATION

		ADR/RID	**IMDG**	**IATA/ICAO**
14.1	**UN number**	1066	1066	1066
14.2	**UN proper shipping name**	NITROGEN, COMPRESSED	NITROGEN, COMPRESSED	NITROGEN, COMPRESSED
14.3	**Transport hazard class(es)**	2	2	2
14.4	**Packing group**	None assigned	None assigned	None assigned
14.5	**Environmental hazards**	Not classified		
14.6	**Special precautions for user**	See Section: 2		
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable	Not applicable	Not applicable
14.8	**Additional information**			

Special Provisions	378, 392, 653, 662
Limited Quantities	120 mL
Transport category	3
Tunnel restriction code	(E)

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1 EU regulations

Authorisations and/or restrictions on use	Not restricted

15.1.2 National regulations

UK Authorisations and/or restrictions on use	Not restricted

15.2 Chemical Safety Assessment

This substance is exempted from Registration according to the provisions of Article 2(7)a and Annex IV of REACH

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Not applicable – V1.0

References:

Existing Safety Data Sheet (SDS)
EU Harmonised Classification and Existing ECHA registration for Nitrogen (CAS No. 7727-37-9).

Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830. Compiled in accordance with REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Legend

CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL	Derived no effect level
EC	European Community
ECHA	European Chemicals Agency
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO/IATA	ICAO: International Civil Aviation Organization / IATA: International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration at which 50% of the population is killed
LD50	Lethal dose at which 50% of the population is killed
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
UK	United Kingdom
UN	United Nations
vPvB	very Persistent and very Bioaccumulative

Hazard classification / Classification code:
Press. Gas (Comp.); Pressurised gas (Compressed gas)

Hazard Statement(s)
H280: Contains gas under pressure; may explode if heated.

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

Disclaimers

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