SAFETY DATA SHEET

Pro Laser N

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

Date of issue: 09/03/2026
Version: 1.0

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

1.1 Product identifier

Product name	Pro Laser N
Product storage	Sold in Cylinders
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 uses. Perform risk assessment prior to use. Assist / shielding / purge gas in laser cutting and laser welding processes.
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 Laser N

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

3.2 Mixtures - Not applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Self-protection of the first aider: No action should be taken involving personal risk. Asphyxiant in high concentrations. Avoid inhalation of high concentrations of gas. Use personal protective equipment as required. 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. Apply artificial respiration if breathing has ceased or shows signs of failing. In high concentration the gas may cause a suffocation. Victim may not be aware of asphyxiation. Keep warm and at rest.

Skin contact: Dermal exposure is considered to be not relevant. Rapid release of gas may cause frostbite. Do not attempt to remove clothing that adheres to the skin due to freezing. Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention.

Eye contact: Unlikely route of exposure. Rapid release of gas may cause cold burns or corneal damage. Immediately flush eyes for at least 15 minutes using lukewarm water. Do not rub affected area. Obtain prompt consultation, preferably from an ophthalmologist.

Ingestion: Oral exposure is considered to be not relevant.
IF SWALLOWED: Rinse mouth. 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. Headaches and dizziness may occur, proceeding to fainting or unconsciousness; large doses may result in coma and death. Rapid release of gas may cause frostbite

4.3 Indication of any immediate medical attention and special treatment needed: Treat symptomatically. Rapid release of gas may cause frostbite. Treat cold burns as frostbite. Thaw frosted parts with lukewarm water. Do not rub affected area.

Notes to a physician: Asphyxiant in high concentrations. Treat cold burns as frostbite.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Not flammable. Does not support combustion. 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. No known hazardous decomposition products.

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. Ensure adequate ventilation. In case of inadequate ventilation wear respiratory protection. Wear suitable protective clothing. Contaminated clothing should be thoroughly cleaned.
6.2	**Environmental precautions**	Presents no hazard 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. 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**	Workers in the risky process/areas identified should be trained. Do not handle until all safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety practices. 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. Close valve after each use and when empty. 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. Keep container in an upright position.
	Storage temperature	Keep cool. Protect from sunlight.
	Incompatible materials	None Known
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 established.
8.1.2	**Biological limit value**	Not established.
8.1.3	**PNECs and DNELs**	Not applicable
8.2	**Exposure controls**	
8.2.1	**Appropriate engineering controls**	Provide adequate ventilation, including appropriate local extraction, to ensure that the occupational exposure limit is not exceeded. Install Gas detectors for toxic gases/vapours and oxygen - use and operation. Use only with equipment rated for cylinder pressure.
8.2.2	**Individual protection measures, such as personal protective equipment**	Avoid inhalation of high concentrations of 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.
		Wear safety goggles in accordance with EN ISO 16321 as a protection against mechanical risks.
	Skin protection	Wear gloves in accordance with EN 388 as a protection against mechanical risks.

Body protection: Apron or other light protective clothing, boots and plastic or rubber gloves. Wear safety shoes (EN344).

Respiratory protection

In case of inadequate ventilation wear respiratory protection.
Recommended: Protective respirator with independent air supply.

Thermal hazards — Rapid release of gas may cause frostbite.

8.2.3 Environmental exposure controls — Presents no hazard to the 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

Molecular weight	4.0026 g/mol
Critical temperature	−267.96 °C

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity — Stable under normal conditions.

10.2 Chemical stability — Chemically inert gas**.** Stable under normal conditions.

10.3 Possibility of hazardous reactions — No hazard expected under normal conditions of use.

10.4 Conditions to avoid — 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 — None Known

10.6 Hazardous decomposition products — No known hazardous decomposition products.

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**	Testing can be waived because substance is a gas.
12.3	**Bioaccumulative potential**	Testing can be waived because substance is a gas. The substance will not bioaccumulate.
12.4	**Mobility in soil**	Testing can be waived because substance is a gas. The substance is volatile and will partition into the atmosphere.
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**	Refer to the EIGA code of practice. (Doc.30 "Disposal of Gases", downloadable at http://www.eiga.org). Disposal should be in accordance with local, state or national legislation.
	EU Waste Codes:	Container: 16 05 05: Gases in pressure containers other than those mentioned in 16 05 04
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	Not classified as a Marine Pollutant.	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	37378, 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 classification and labelling inventory 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.); Gases under pressure (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.

For detailed guidance on safe handling, storage, and transport of cryogenic liquids in the UK, refer to industry standards such as:

1. BCGA CP 44: The Storage of Gas Cylinders
2. BCGA Guidance Note 11 (GN 11): Reduced Oxygen - The Hazards.

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