

HARP[®] Nitrogen

Revision: 1
Revision date: November 2020

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name	Nitrogen (N ₂)
REACH registration number	Exempt from registration (Listed in Annex IV / V REACH)
CAS No.	7727-37-9
EC No.	231-783-9

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

Product use	Industrial and professional. Test gas, calibration gas, purge gas, diluting gas, inerting gas, laboratory use, shield gas for welding processes, use for manufacture of electronic/photovoltaic components.
Description	Gas

1.3 Details of the supplier of the safety data sheet

Company	Harp International Limited
Address	Gellihirion Industrial Estate Pontypridd Rhondda Cynon Taff CF37 5SX UK
Web	www.harpintl.com
Telephone	+44 (0) 1443 842 255
Fax	+44 (0) 1443 841 805
Email	harp@harpintl.com
Email of competent person	safety@harpintl.com

1.4 Emergency telephone number


Emergency telephone number	+44 (0) 1270 502 891 24 hours
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification – EC 1272/2008	Compressed gas: H280
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2.2 Label elements

Hazard pictograms	
Signal word	Warning
Hazard statement	H280 – Contains gas under pressure; may explode if heated
Precautionary statement	P410+P403 – Protect from sunlight. Store in a well-ventilated place.

2.3 Other hazards

Other hazards	Asphyxiant in high concentrations.
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SECTION 3: Composition/information on ingredients

3.1 Substances

EC 1272/2008

Chemical name	CAS No.	EC No.	REACH registration number	Concentration (%w/w)	Classification
Nitrogen	7727-37-9	231-783-9	Exempt	100%	Compressed gas: H280

Contains no other components or impurities which will influence the classification of the product.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation	Move the exposed person to fresh air
Eye contact	Adverse effects not expected
Skin contact	Adverse effects not expected
Ingestion	Ingestion is not considered a potential route of exposure

4.2 Most important symptoms and effects, both acute and delayed

Inhalation	In high concentrations, may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation.
Eye contact	Adverse effects not expected
Skin contact	Adverse effects not expected
Ingestion	Ingestion is not considered a potential route of exposure

4.3 Indication of any immediate medical attention and special treatment needed

Inhalation	Apply artificial respiration if breathing stopped
Eye contact	Adverse effects not expected
Skin contact	Adverse effects not expected
Ingestion	Ingestion is not considered a potential route of exposure

SECTION 5: Firefighting measures

5.1 Extinguishing media

	Water spray or fog Do not use water jet to extinguish
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5.2 Special hazards arising from the substance or mixture

	Exposure to fire may cause containers to rupture/explode No hazardous combustion products
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5.3 Advice for firefighters

	Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems. If possible, stop flow of product. Use water spray or fog to knock down fire fumes if possible. Move containers away from the fire area if safe to do so. Use self-contained breathing apparatus.
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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

	Try to stop release. Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation. Stay upwind.
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6.2 Environmental precautions

	Try to stop release
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6.3 Methods and material for containment and clean up

	Ventilate area
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6.4 Reference to other sections

	See section 8 Exposure controls / personal protection See section 13 Disposal considerations
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SECTION 7: Handling and storage

7.1 Precautions for safe handling

	<p>Do not breathe gas. Avoid release of product into atmosphere. The substance must be handled in accordance with good hygiene and safety procedures. Only experienced and properly instructed persons should handle gases under pressure. Consider pressure relief devices in gas installations. Check regularly for leaks. Do not smoke while handling product. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.</p> <p>Refer to supplier's container instructions. Do not allow backfeed into the container. Protect cylinders from physical damage. Do not drag, roll, slide or drop. When moving cylinders, even for short distances, use a cart designed to transport cylinders. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand ready for use. If user experiences any difficulty operating cylinder valve, discontinue use and contact supplier. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Keep container valve outlets clean and free from contaminants, particularly oil and water. Replace valve outlet caps, or plugs and container caps where supplied as soon as container is disconnected from equipment. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to transfer gases from one cylinder/container to another. Never use direct flame or electrical heating devices to raise the pressure of a container. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. Suck back of water into the container must be prevented.</p>
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7.2 Conditions for safe storage, including any incompatibilities

	Observe all regulations and local requirements regarding storage of containers. Containers should not be stored in conditions likely to cause corrosion. Container valve guards or caps should be in place. Containers should be stored in the vertical position and properly secured to prevent from falling over. Stored containers should be periodically checked for general condition and leakage. Keep container below 50°C in a well ventilated place. Store containers in a location free from fire risk and away from sources of heat and ignition. Keep away from combustible materials.
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7.3 Specific end use(s)

	None
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SECTION 8: Exposure controls/personal protection

8.1 Control parameters – exposure limit values

Component	CAS No.	Value type (form of exposure)	Exposure limit values	Source
Nitrogen	7727-37-9		Not listed in EH40	

8.2 Exposure controls

Appropriate engineering controls	Ensure adequate ventilation of the working area. Oxygen detectors should be used when asphyxiating gases may be released. Systems under pressure should be regularly checked for leaks. Consider work permit system for maintenance activities.
Individual protection measures	Wear protective clothing
Eye/face protection	Approved safety goggles
Skin & body protection	Wear suitable gloves. Wear safety shoes when handling containers.
Respiratory protection	Wear suitable respiratory protection equipment when necessary
Occupational exposure controls	Keep away from food, drink and animal feedstuffs.
Hygiene protection	Good industrial hygiene and safety procedures. Do not eat, drink or smoke when using the product.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance - Physical state	Gas
Colour	Colourless
Odour	No odour warning properties
Odour threshold	Odour threshold is subjective and inadequate to warn of overexposure
pH	Not applicable
Melting point	-210°C
Boiling point / range	-196°C
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	This product is not flammable
Upper explosion limit / Lower flammability limit	Not applicable
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density	0.97 (air=1)
Solubility(ies)	
Water solubility	20 mg/l
Partition coefficient: n-octanol/water	Not applicable for inorganic gases
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Viscosity	
Viscosity, kinematic	Not applicable
Explosive properties	Not applicable
Oxidising properties	None

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9.2 Other information

Molecular weight	28 g/mol
Critical temperature	-147 °C

SECTION 10: Stability and reactivity

10.1 Reactivity

	No reactivity hazard other than the effects described in sub-sections below
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10.2 Chemical stability

	Stable under normal conditions
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10.3 Possibility of hazardous reactions

	None
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10.4 Conditions to avoid

	None under recommended storage and handling conditions
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10.5 Incompatible materials

	None
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10.6 Hazardous decomposition products

	None
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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity	No known toxicological effects from this product
Skin corrosion/irritation	No known effects from this product
Serious eye damage/irritation	No known effects from this product
Respiratory or skin sensitisation	No known effects from this product
Germ cell mutagenicity	No known effects from this product
Carcinogenicity	No known effects from this product
Reproductive toxicity	No known effects from this product
STOT single exposure	No known effects from this product
STOT repeated exposure	No known effects from this product
Aspiration hazard	Not applicable for gases and gas mixtures

SECTION 12: Ecological information

12.1 Toxicity

	No ecological damage caused by this product
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12.2 Persistence and degradability

	No ecological damage caused by this product
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12.3 Bioaccumulative potential

	No ecological damage caused by this product
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12.4 Mobility in soil

	No ecological damage caused by this product
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12.5 Results of PBT and vPvB assessment

	Not classified as PBT or vPvB
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12.6 Other adverse effects

	No effect on ozone layer No effect on global warming
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SECTION 13: Disposal considerations

13.1 Waste treatment methods

	Consult supplier for specific recommendations. May be vented to atmosphere in well-ventilated place. Do not discharge into any place where its accumulation could be dangerous. Dispose of container via supplier only. EWC code: 16 05 05
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SECTION 14: Transport information

Hazard pictograms

	
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14.1 UN number

	UN 1066
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14.2 UN proper shipping name

	NITROGEN, COMPRESSED
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14.3 Transport hazard class(es)

ADR/RID	
Class	2
Labels	2.2
Classification code	1A
Hazard No. (ADR)	20
Tunnel category	E – Passage forbidden through tunnels of category E
Packing instruction	P200
IMDG	
Class	2.2
EmS No.	F-C, S-V
Packing instruction	P200
IATA	
Class	2.2
Packing instruction	200

14.4 Packing group

	Not applicable
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14.5 Environmental hazards

Environmental hazards	Not applicable
Marine pollutant	Not classified as a marine pollutant

14.6 Special precautions for user

	Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure container valves are closed, not leaking and caps in place. Ensure containers are firmly secured. Ensure adequate air ventilation.
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14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

	Not applicable
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SECTION 15: Regulatory information

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

Regulations	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
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15.2 Chemical safety assessment

	A CSA does not need to be carried out for this product
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SECTION 16: Other information

Other information

Text of Hazard Statements in Section 3	H280: Contains gas under pressure; may explode if heated.
Reference materials	HSE publication EH40/2005 Workplace exposure limits (latest edition)
Changes from previous versions	-

Further information

	The information supplied in this safety data sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made of its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the material in the user's end product, if applicable.
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