

Danger

# Safety Data Sheet

## 1.5% NO, 7.5% CO in Nitrogen

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Reference number: 1.0 Issue date: 12/17/2020 Revision date: 1/13/2023 Supersedes version of: 11/11/2022 Version: 3.0



| SECTION 1: Identification of the substance/mixture and of the company/undertaking                                   |   |  |
|---|---|--|
| 1.1. Product identifier   |   |  |
| SDS no  | : 1.0   |  |
| 1.2. Relevant identified uses of the substance  | or mixture and uses advised against   |  |
| Relevant identified uses<br>Uses advised against  | <ul> <li>Industrial and professional uses. Perform risk assessment prior to use.</li> <li>Consumer use.</li> <li>Uses other than those listed above are not supported, contact your supplier for more information on other uses.</li> </ul> |  |
| 1.3. Details of the supplier of the safety data sh  | <u>neet</u>   |  |
| Air Liquide UK Ltd.<br>Station Road Coleshill<br>B46 1JY Birmingham<br>United Kingdom<br>safety.aluk@airliquide.com |   |  |
| 1.4. Emergency telephone number   |   |  |
| Emergency telephone number  | : 01675 462695 (Available 24/7)   |  |

### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

| Physical hazards | Gases under pressure : Compressed gas                          | H280  |
|------------------|--|-------|
| Health hazards   | Acute toxicity (inhalation:gas) Category 4                     | H332  |
|                  | Skin corrosion/irritation, Category 2                          | H315  |
|                  | Serious eye damage/eye irritation, Category 2                  | H319  |
|                  | Reproductive toxicity, Category 1A                             | H360D |
|                  | Specific target organ toxicity – Repeated exposure, Category 2 | H373  |

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

| Hazard pictograms (CLP) | $\langle \rangle$ |       |       |
|-------------------------|-------------------|-------|-------|
|                         |                   |       |       |
|                         | GHS04             | GHS07 | GHS08 |
| Signal word (CLP)       | : Danger          |       |       |



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| Hazard statements (CLP)        | : H280 - Contains gas under pressure; may explode if heated.<br>H315 - Causes skin irritation.   |
|--------------------------------|--|
|                                | H319 - Causes serious eye irritation.  |
|                                | H332 - Harmful if inhaled.   |
|                                | H360D - May damage the unborn child.   |
|                                | H373 - May cause damage to organs through prolonged or repeated exposure.  |
| Precautionary statements (CLP) |  |
| - Prevention                   | <ul> <li>P280 - Wear protective gloves, protective clothing, eye protection, face protection.</li> <li>P202 - Do not handle until all safety precautions have been read and understood.</li> <li>P260 - Do not breathe gas, vapours.</li> </ul>  |
| - Response                     | <ul> <li>P308+P313 - IF exposed or concerned: Get medical advice/attention.</li> <li>P304+P340+P315 - IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice / attention.</li> <li>P305+P351+P338+P315 - IF IN EYES : Rinse cautiously with water for several minutes.</li> <li>Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice / attention.</li> </ul> |
| Supplemental information       | : Restricted to professional users.  |
| 2.3. Other hazards             |  |
|                                | None.  |
|                                | Not classified as PBT or vPvB.   |

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

| Name            | Product identifier   | %   | Classification according to Regulation (EC) No. 1272/2008 [CLP]   |
|-----------------|--|-----|---|
| Nitrogen        | CAS-No.: 7727-37-9<br>EC-No.: 231-783-9<br>EC Index-No.:<br>REACH-no: *1                           | 91  | Press. Gas (Comp.), H280  |
| Carbon monoxide | CAS-No.: 630-08-0<br>EC-No.: 211-128-3<br>EC Index-No.: 006-001-00-2<br>REACH-no: 01-2119480165-39 | 7.5 | Flam. Gas 1B, H221<br>Press. Gas (Comp.), H280<br>Acute Tox. 3 (Inhalation:gas), H331<br>Repr. 1A, H360D<br>STOT RE 1, H372   |
| Nitric oxide    | CAS-No.: 10102-43-9<br>EC-No.: 233-271-0<br>EC Index-No.:<br>REACH-no: 01-2120766630-54            | 1.5 | Ox. Gas 1, H270<br>Press. Gas (Comp.), H280<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Acute Tox. 1 (Inhalation:gas), H330 |

Full text of H- and EUH-statements: see section 16

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

\*1: Listed in Annex IV / V REACH, exempted from registration.

\*3: Registration not required: Substance manufactured or imported < 1t/y.



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### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

| - Inhalation   | <ul> <li>Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep<br/>victim warm and rested. Call a doctor. Perform cardiopulmonary resuscitation if breathing<br/>stopped.</li> </ul> |
|----------------|--|
| - Skin contact | : Remove contaminated clothing. Drench affected area with water for at least 15 minutes.   |
| - Eye contact  | : Immediately flush eyes thoroughly with water for at least 15 minutes.  |
| - Ingestion    | : Ingestion is not considered a potential route of exposure.   |
|                |  |

#### 4.2. Most important symptoms and effects, both acute and delayed

May cause irritation to cornea (with temporary disturbance to vision). May cause irritation to skin. See section 11.

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

Obtain medical assistance.

| SECTION 5: Firefighting measures                                   |   |  |
|--|---|--|
| 5.1. Extinguishing media   |   |  |
| - Suitable extinguishing media                                     | : Water spray or fog.<br>Product does not burn, use fire control measures appropriate for the surrounding fire.   |  |
| - Unsuitable extinguishing media                                   | : Do not use water jet to extinguish.   |  |
| 5.2. Special hazards arising from the substance                    | or mixture  |  |
| Specific hazards   | : Exposure to fire may cause containers to rupture/explode.   |  |
| Hazardous combustion products                                      | : None that are more hazardous than the product itself.   |  |
| 5.3. Advice for firefighters                                       |   |  |
| Specific methods<br>Special protective equipment for fire fighters | <ul> <li>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.</li> <li>If possible, stop flow of product.</li> <li>Use water spray or fog to knock down fire fumes if possible.</li> <li>Move containers away from the fire area if this can be done without risk.</li> <li>Wear gas tight chemically protective clothing in combination with self contained breathing apparatus.</li> <li>Standard EN 943-2: Protective clothing against liquid and gaseous chemicals, aerosols and calid participae.</li> </ul> |  |
|  | solid particles. Gas-tight chemical protective suits for emergency teams.<br>Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask.  |  |

#### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

| For non-emergency personnel | : Act in accordance with local emergency plan.   |
|-----------------------------|--|
|                             | Evacuate area.   |
|                             | Ensure adequate air ventilation.   |
|                             | Try to stop release.   |
|                             | Stay upwind.   |
|                             | See section 8 of the SDS for more information on personal protective equipment.                      |
| For emergency responders    | : Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. |
|                             | See section 5.3 of the SDS for more information.   |



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|---|---|
| 6.2. Environmental precautions  |   |
|   | Reduce vapour with fog or fine water spray.<br>Try to stop release.   |
| 6.3. Methods and material for containmen  | t and cleaning up   |
| Hose down area with water.<br>Wash contaminated equipment or sites of leaks with copious quantities                     |   |
| 6.4. Reference to other sections  | See also sections 8 and 13.   |
| SECTION 7: Handling and storage   | 9   |
| 7.1. Precautions for safe handling  |   |
| Safe use of the product   | <ul> <li>Do not breathe gas.</li> <li>Avoid release of product into atmosphere.</li> <li>The product must be handled in accordance with good industrial hygiene and safety procedures.</li> <li>Only experienced and properly instructed persons should handle gases under pressure.</li> <li>Consider pressure relief device(s) in gas installations.</li> <li>Ensure the complete gas system was (or is regularily) checked for leaks before use.</li> <li>Do not smoke while handling product.</li> <li>Avoid exposure, obtain special instructions before use.</li> <li>Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.</li> <li>Avoid suck back of water, acid and alkalis.</li> </ul>   |
| Safe handling of the gas receptacle   | <ul> <li>Refer to supplier's container handling instructions.</li> <li>Do not allow backfeed into the container.</li> <li>Protect containers from physical damage; do not drag, roll, slide or drop.</li> <li>When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders.</li> <li>Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.</li> <li>If user experiences any difficulty operating valve discontinue use and contact supplier.</li> <li>Never attempt to repair or modify container valves or safety relief devices.</li> <li>Damaged valves should be reported immediately to the supplier.</li> <li>Keep container valve outlets clean and free from contaminants particularly oil and water.</li> <li>Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment.</li> <li>Close container valve after each use and when empty, even if still connected to equipment.</li> <li>Never attempt to transfer gases from one cylinder/container to another.</li> </ul> |

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 content of the container.

Suck back of water into the container must be prevented.

Open valve slowly to avoid pressure shock.

#### 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 encourage corrosion.

Container valve guards or caps should be in place.

Containers should be stored in the vertical position and properly secured to prevent them 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 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.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### Carbon monoxide (630-08-0)

#### United Kingdom - Occupational Exposure Limits

| WEL TWA (OEL TWA) [1]     | 35 mg/m <sup>3</sup> Limits applicable to underground mining & tunnelling industries ONLY until 21/8/23  |
|---------------------------|--|
| WEL TWA (OEL TWA) [2]     | 30 ppm Limits applicable to underground mining & tunnelling industries ONLY until 21/8/23                |
| WEL STEL (OEL STEL)       | 232 mg/m <sup>3</sup> Limits applicable to underground mining & tunnelling industries ONLY until 21/8/23 |
| WEL STEL (OEL STEL) [ppm] | 200 ppm Limits applicable to underground mining & tunnelling industries ONLY until 21/8/23               |

| Nitric oxide (10102-43-9)                     |  |
|---|--|
| United Kingdom - Occupational Exposure Limits |  |
| WEL TWA (OEL TWA) [1]                         | 30 mg/m <sup>3</sup> Limit applicable to underground mining & tunnelling industries ONLY until 21/8/23 |
| WEL TWA (OEL TWA) [2]                         | 25 ppm Limit applicable to underground mining & tunnelling industries ONLY until 21/8/23               |

| Carbon monoxide (630-08-0)               |           |  |
|--|-----------|--|
| DNEL: Derived no effect level (Workers)  |           |  |
| Acute - local effects, inhalation        | 117 ppm   |  |
| Acute - systemic effects, inhalation     | 117 mg/m³ |  |
| Long-term - local effects, inhalation    | 23 ppm    |  |
| Long-term - systemic effects, inhalation | 23 mg/m³  |  |

PNEC (Predicted No-Effect Concentration)

: None established.

#### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

Product to be handled in a closed system and under strictly controlled conditions. Provide adequate general and local exhaust ventilation. Preferably use permanent leak-tight installations (e.g. welded pipes). Systems under pressure should be regularily checked for leakages. Ensure exposure is below occupational exposure limits (where available). Gas detectors should be used when toxic gases may be released. Consider the use of a work permit system e.g. for maintenance activities.

#### 8.2.2. Individual protection measures, e.g. personal protective equipment

A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk. The following recommendations should be considered: PPE compliant to the recommended EN/ISO standards should be selected.



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| Eye/face protection                    | <ul> <li>Wear goggles and a face shield when transfilling or breaking transfer connections.</li> <li>Standard EN 166 - Personal eye-protection - specifications.</li> <li>Provide readily accessible eye wash stations and safety showers.</li> </ul>   |
|--|---|
| Skin protection                        |   |
| - Hand protection                      | <ul> <li>Wear chemically resistant protective gloves.</li> <li>Wear working gloves when handling gas containers.</li> <li>Standard EN 388 - Protective gloves against mechanical risk, performance level 1 or higher.</li> <li>Standard EN 374 - Protective gloves against chemicals.</li> <li>Consult glove manufacturer's product information on material suitability and material thickness.</li> <li>The breakthrough time of the selected gloves must be greater than the intended use period.</li> </ul>  |
| - Other                                | <ul> <li>Keep suitable chemically resistant protective clothing readily available for emergency use.</li> <li>Standard EN943-1 - Full protective suits against liquid, solid and gaseous chemicals.</li> <li>Wear safety shoes while handling containers.</li> <li>Standard EN ISO 20345 - Personal protective equipment - Safety footwear.</li> </ul>  |
| Respiratory protection                 | <ul> <li>Gas filters may be used if all surrounding conditions e.g. type and concentration of the contaminant(s) and duration of use are known.</li> <li>Use gas filters with full face mask, where exposure limits may be exceeded for a short-term period, e.g. connecting or disconnecting containers.</li> <li>Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask.</li> <li>Consult respiratory device supplier's product information for the selection of the appropriate device.</li> <li>Gas filters do not protect against oxygen deficiency.</li> <li>Never use any kind of filtering respiratory protection equipment when working with this substance due to it having poor or no warning properties.</li> </ul> |
| • Thermal hazards                      | <ul> <li>Standard EN 14387 - Gas filter(s), combined filter(s) and standard EN136, full face masks .</li> <li>Keep self contained breathing apparatus readily available for emergency use.</li> <li>Self contained breathing apparatus is recommended, where unknown exposure may be expected, e.g. during maintenance activities on installation systems.</li> <li>None in addition to the above sections.</li> </ul>  |
|  |   |
| 8.2.3. Environmental exposure controls |   |
|  | Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for   |

Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

## **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

| Appearance                          |   |
|-------------------------------------|---|
| - Physical state at 20°C / 101.3kPa | : Gas.  |
| - Colour                            | : Mixture contains one or more component(s) which have the following colour(s):         |
|                                     | Colourless Brownish gas.  |
| Odour                               | : Odour threshold is subjective and inadequate to warn of overexposure.                 |
|                                     | Mixture contains one or more component(s) which have the following odour:               |
|                                     | Pungent.  |
| Melting point / Freezing point      | : Not applicable for gas mixtures.  |
| Boiling point                       | : Not applicable for gas mixtures.  |
|                                     | It is technically not possible to determine the boiling point or range of this mixture. |
|                                     | Component with lowest boiling point: Nitrogen -196 °C                                   |
| Flammability                        | : Non flammable.  |
| Lower explosion limit               | : Not available.  |
| Upper explosion limit               | : Not available.  |
| Flash point                         | : Not applicable for gases and gas mixtures.  |
| Auto-ignition temperature           | : Non flammable.  |
| Decomposition temperature           | : Not applicable.   |
| pH                                  | : Not applicable for gases and gas mixtures.  |
| Viscosity, kinematic                | : Not known.  |
| Water solubility [20°C]             | : Mixture is partially soluble in water   |
|                                     |   |



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| Partition coefficient n-octanol/water (Log Kow)<br>Vapour pressure [20°C]<br>Vapour pressure [50°C]<br>Density and/or relative density<br>Relative vapour density (air=1)<br>Dentiele characteristics | <ul> <li>Not available.</li> <li>Not applicable.</li> <li>Not applicable.</li> <li>Not applicable.</li> <li>Lighter or similar to air.</li> </ul> |
|---|---|
| Particle characteristics 9.2. Other information   | : Not applicable.   |

| 9.2.1. Information with regard to physical hazard classes   |  |  |  |
|---|--|--|--|
| : Not applicable.   |  |  |  |
| : Non flammable.  |  |  |  |
| : Not applicable.   |  |  |  |
|   |  |  |  |
|   |  |  |  |
| : Not applicable for gas mixtures.  |  |  |  |
| <ul><li>Not applicable for gas mixtures.</li><li>Not applicable for gases and gas mixtures.</li></ul> |  |  |  |
|   |  |  |  |

| SECTION 10: Stability and reactivity     |   |
|--|---|
| 10.1. Reactivity                         |   |
|  | No reactivity hazard other than the effects described in sub-sections below.<br>Data for mixture are not available.<br>This mixture contains components with the following reactivity : Can form explosive mixture<br>with air. May react violently with oxidants. Violently oxidises organic material. |
| 10.2. Chemical stability                 |   |
|  | Stable under normal conditions.   |
| 10.3. Possibility of hazardous reactions |   |
|  | None.   |
| 10.4. Conditions to avoid                |   |
|  | Avoid moisture in installation systems.   |
| 10.5. Incompatible materials             |   |
|  | For additional information on compatibility refer to ISO 11114.   |
| 10.6. Hazardous decomposition products   |   |
|  | Under normal conditions of storage and use, hazardous decomposition products should not be produced.  |

## **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

| Acute toxicity                | : Harmful if inhaled.                  |  |
|-------------------------------|--|--|
| Carbon monoxide (630-08-0)    |  |  |
| LC50 Inhalation - Rat [ppm]   | 3760 ppm/1h (ADR)<br>1300 ppm/4h (CLP) |  |
| Nitric oxide (10102-43-9)     |  |  |
| LC50 Inhalation - Rat [ppm]   | 57.5 ppm/4h                            |  |
| Skin corrosion/irritation     | Causes skin irritation.                |  |
| Serious eye damage/irritation | : Causes serious eye irritation.       |  |



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| 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.                                |
| Toxic for reproduction : Fertility    | : No known effects from this product.                                |
| Toxic for reproduction : unborn child | : May damage the unborn child.                                       |
| STOT-single exposure                  | : No known effects from this product.                                |
| STOT-repeated exposure                | : May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard                     | : Not applicable for gases and gas mixtures.                         |
| 11.2. Information on other hazards    |  |

No additional information available

SECTION 12: Ecological information

### <u>12.1. Toxicity</u>

## Assessment

EC50 48h - Daphnia magna [mg/l] EC50 72h - Algae [mg/l] LC50 96 h - Fish [mg/l] No ecological damage caused by this product.
No data available.
No data available.
No data available.

| Carbon monoxide (630-08-0)      |                    |
|---------------------------------|--------------------|
| EC50 48h - Daphnia magna [mg/l] | No data available. |
| EC50 72h - Algae [mg/l]         | No data available. |
| LC50 96 h - Fish [mg/l]         | No data available. |

| Nitric oxide (10102-43-9)       |                    |
|---------------------------------|--------------------|
| EC50 48h - Daphnia magna [mg/l] | No data available. |
| EC50 72h - Algae [mg/l]         | No data available. |
| LC50 96 h - Fish [mg/l]         | No data available. |

| Nitrogen (7727-37-9)                     |  |  |
|--|--|--|
| EC50 48h - Daphnia magna [mg/l]          | No data available.                           |  |
| EC50 72h - Algae [mg/l]                  | No data available.                           |  |
| LC50 96 h - Fish [mg/l]                  | No data available.                           |  |
| 12.2. Persistence and degradability      |  |  |
| Assessment :                             | No ecological damage caused by this product. |  |
| 12.3. Bioaccumulative potential          |  |  |
| Assessment :                             | No data available.                           |  |
| <u>12.4. Mobility in soil</u>            |  |  |
| Assessment :                             | No ecological damage caused by this product. |  |
| 12.5. Results of PBT and vPvB assessment |  |  |
| Assessment :                             | Not classified as PBT or vPvB.               |  |
| 12.6. Endocrine disrupting properties    |  |  |
| Assessment :                             |  |  |



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| <b>12.7. Other adverse effects</b><br>Other adverse effects<br>Effect on the ozone layer<br>Effect on global warming   | <ul> <li>May cause pH changes in aqueous ecological systems.</li> <li>No effect on the ozone layer.</li> <li>No known effects from this product.</li> </ul>   |
| SECTION 13: Disposal considerations  |   |
| 13.1. Waste treatment methods  |   |
| List of hazardous waste codes (from Commission   | Contact supplier if guidance is required.<br>Must not be discharged to atmosphere.<br>Ensure that the emission levels from local regulations or operating permits are not<br>exceeded.<br>Refer to the EIGA code of practice Doc.30 "Disposal of Gases", downloadable at<br>http://www.eiga.org for more guidance on suitable disposal methods.<br>Return unused product in original container to supplier.<br>: 16 05 04 *: Gases in pressure containers (including halons) containing hazardous |
| Decision 2000/532/EC as amended)   | substances.   |
| 13.2. Additional information   |   |
|  | External treatment and disposal of waste should comply with applicable local and/or<br>national regulations.  |
|  |   |
| SECTION 14: Transport information  |   |
| 14.1. UN number or ID number   |   |
| In accordance with ADR / RID / IMDG / IATA / ADN<br>UN-No.   | : 1956  |
| 14.2. UN proper shipping name  |   |
| Transport by road/rail (ADR/RID)   | : COMPRESSED GAS, N.O.S. (Nitrogen, Nitric oxide)   |
| Transport by air (ICAO-TI / IATA-DGR)  | <ul> <li>Compressed gas, n.o.s. (Nitrogen, Nitric oxide)</li> <li>COMPRESSED GAS, N.O.S. (Nitrogen, Nitric oxide)</li> </ul>  |
| Transport by sea (IMDG)  |   |
| 14.3. Transport hazard class(es)   |   |
| Labelling  |   |
|  | 2.2 : Non-flammable, non-toxic gases.   |
| Transport by road/rail (ADR/RID)<br>Class<br>Classification code<br>Hazard identification number<br>Tunnel Restriction | <ul> <li>2</li> <li>1A</li> <li>20</li> <li>E - Passage forbidden through tunnels of category E</li> </ul>  |
|  |   |

### Transport by air (ICAO-TI / IATA-DGR) Class / Div. (Sub. risk(s))

| Transport by sea (IMDG)             |  |
|-------------------------------------|--|
| Class / Div. (Sub. risk(s))         |  |
| Emergency Schedule (EmS) - Fire     |  |
| Emergency Schedule (EmS) - Spillage |  |

#### 14.4. Packing group

| Transport by road/rail (ADR/RID)      | : Not applicable. |
|---------------------------------------|-------------------|
| Transport by air (ICAO-TI / IATA-DGR) | : Not applicable. |
| Transport by sea (IMDG)               | : Not applicable. |

: 2.2

: 2.2 : F-C : S-V



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| 14.5. Environmental hazards  |  |
|--|--|
| Transport by road/rail (ADR/RID)   | : None.  |
| Transport by air (ICAO-TI / IATA-DGR)  | : None.  |
| Transport by sea (IMDG)  | : None.  |
| 14.6. Special precautions for user   |  |
| Packing Instruction(s)   |  |
| Transport by road/rail (ADR/RID)   | : P200.  |
| Transport by air (ICAO-TI / IATA-DGR)  |  |
| Passenger and Cargo Aircraft   | : 200.   |
| Cargo Aircraft only  | : 200.   |
| Transport by sea (IMDG)  | : P200.  |
| Special transport precautions<br>14.7. Maritime transport in bulk according to IMO | <ul> <li>Avoid transport on vehicles where the load space is not separated from the driver's compartment.</li> <li>Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.</li> <li>Before transporting product containers: <ul> <li>Ensure there is adequate ventilation.</li> <li>Ensure that containers are firmly secured.</li> <li>Ensure valve is closed and not leaking.</li> <li>Ensure valve outlet cap nut or plug (where provided) is correctly fitted.</li> </ul> </li> <li>Instruments</li> </ul> |
| 14.7. Maritime transport in bulk according to IMO                                  | Instruments  |
|  | Not applicable.  |
|  |  |

| SECTION 15: Regulatory information 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture |  |  |
|---|--|--|
|   |  |  |
| Restrictions on use   | : Restricted to professional users (Annex XVII REACH).<br>Contains no substance on the REACH candidate list.   |  |
| Other information, restriction and prohibition<br>regulations<br>Seveso Directive : 2012/18/EU (Seveso III)                             | <ul> <li>Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament<br/>and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.</li> <li>Not covered.</li> </ul> |  |
| National regulations  |  |  |
| Regulatory reference  | : Ensure all national/local regulations are observed.  |  |
| 15.2. Chemical safety assessment  |  |  |
|   | A CSA does not need to be carried out for this product.  |  |
| SECTION 16: Other information   |  |  |

| SECTION 16: Other information |  |
|-------------------------------|--|
| Indication of changes         | : Safety data sheet in accordance with commission regulation (EU) No 2020/878. |



1.5% NO, 7.5% CO in Nitrogen

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Reference number: 1.0

| Abbreviations and acronyms | <ul> <li>ATE - Acute Toxicity Estimate.</li> <li>CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008.</li> <li>REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.</li> <li>EINECS - European Inventory of Existing Commercial Chemical Substances.</li> <li>CAS# - Chemical Abstract Service number.</li> <li>PPE - Personal Protection Equipment.</li> <li>LC50 - Lethal Concentration to 50 % of a test population.</li> <li>RMM - Risk Management Measures.</li> <li>PBT - Persistent, Bioaccumulative and Toxic.</li> <li>vPvB - Very Persistent and Very Bioaccumulative.</li> <li>STOT- SE : Specific Target Organ Toxicity - Single Exposure.</li> <li>CSA - Chemical Safety Assessment.</li> <li>EN - European Agreement concerning the International Carriage of Dangerous Goods by Road.</li> <li>IATA - International Air Transport Association.</li> <li>IMDG code - International Maritime Dangerous Goods.</li> <li>RID - Regulations concerning the International Carriage of Dangerous Goods by Rail.</li> <li>WGK - Water Hazard Class.</li> <li>STOT - RE : Specific Target Organ Toxicity - Repeated Exposure.</li> </ul> |
|----------------------------|--|
| Training advice            | <ul> <li>UFI : Unique Formula Identifier.</li> <li>: Users of breathing apparatus must be trained.</li> <li>Ensure operators understand the toxicity hazard.</li> </ul>  |
| Further information        | <ul> <li>Classification using data from databases maintained by the European Industrial Gases<br/>Association (EIGA). Data is maintained in EIGA doc 169 : 'Classification and Labelling<br/>Guide', downloadable at : http://www.eiga.eu.</li> <li>Classification in accordance with the procedures and calculation methods of Regulation</li> </ul>  |

(EC) 1272/2008 (CLP).

| Full text of H- and EUH-statements |   |
|------------------------------------|---|
| Acute Tox. 1 (Inhalation:gas)      | Acute toxicity (inhalation:gas) Category 1                      |
| Acute Tox. 3 (Inhalation:gas)      | Acute toxicity (inhalation:gas) Category 3                      |
| Acute Tox. 4 (Inhalation:gas)      | Acute toxicity (inhalation:gas) Category 4                      |
| Eye Dam. 1                         | Serious eye damage/eye irritation, Category 1                   |
| Eye Irrit. 2                       | Serious eye damage/eye irritation, Category 2                   |
| Flam. Gas 1B                       | Flammable gases, Category 1B                                    |
| H221                               | Flammable gas.  |
| H270                               | May cause or intensify fire; oxidiser.                          |
| H280                               | Contains gas under pressure; may explode if heated.             |
| H314                               | Causes severe skin burns and eye damage.                        |
| H315                               | Causes skin irritation.   |
| H318                               | Causes serious eye damage.                                      |
| H319                               | Causes serious eye irritation.                                  |
| H330                               | Fatal if inhaled.   |
| H331                               | Toxic if inhaled.   |
| H332                               | Harmful if inhaled.   |
| H360D                              | May damage the unborn child.                                    |
| H372                               | Causes damage to organs through prolonged or repeated exposure. |



## 1.5% NO, 7.5% CO in Nitrogen

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Reference number: 1.0

| H373               | May cause damage to organs through prolonged or repeated exposure. |
|--------------------|--|
| Ox. Gas 1          | Oxidising Gases, Category 1  |
| Press. Gas (Comp.) | Gases under pressure : Compressed gas                              |
| Repr. 1A           | Reproductive toxicity, Category 1A                                 |
| Skin Corr. 1B      | Skin corrosion/irritation, Category 1, Sub-Category 1B             |
| Skin Irrit. 2      | Skin corrosion/irritation, Category 2                              |
| STOT RE 1          | Specific target organ toxicity – Repeated exposure, Category 1     |
| STOT RE 2          | Specific target organ toxicity – Repeated exposure, Category 2     |

DISCLAIMER OF LIABILITY

: Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

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