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[Prepared in accordance with Regulation EC 1907/2006 (REACH), as amended]

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|  | **Section 1: Substance / mixture identification and company identification** |
| **1.1** | **Product identification** |
|  | Trade name: **Oxygen**  Chemical name: oxygen  Index number: 008-001-00-8  Proper registration number: substance exempted from the registration obligation under the IV  REACH regulation |
| **1.2** | **Relevant identified applications of the substance or mixture and applications advised against** |
|  | Identified applications: oxygen inhaler. Not for medical use.  Applications advised against: unspecified. |
| **1.3** | **Emergency telephone number** |
|  | 112 (general emergency telephone), 998 (Fire Brigade), 999 (Ambulance); |

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| **Section 2 : Hazard identification** | | | |
| **2.1** | **Classification of the substance or mixture** | | |
| **Ox. Gas 1** H270 May cause or intensify fire; oxidizer.  **Press. Gas** H280 Contains gas under pressure; may explode if heated. | | | |
| **2.2** | **Label elements** | |  |
|  | Hazard pictograms and signal word: | | |
|  |  |  | **HAZARD** |
|  | Hazard statements | | |
|  | H270 May cause or intensify fire; oxidizer.  H280 Contains gas under pressure; may burst if heated. | | |
|  | Precautionary statements | | |
|  | P103 Read the label before use.  P220 Keep away from clothing and other combustible materials.  P244 Protect the valves and connections from oil and grease.  P370+P376 In the event of fire: Stop the leak if safe to do so.  P403 Store in a well ventilated place.  P410+P412 Protect from sunlight . Do not expose to temperatures exceeding 50 °C /122 °F. | | |

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| **2.3** | **Other hazards** |
|  | The substance does not meet the PBT or vPvB criteria according to Annex XIII of the REACH Regulation. Sharply expanding gas causes a significant lowering of the temperature and may cause thermal damage to the skin and eyes. Intensively accelerates the combustion. Keep away from oil, grease and other combustible materials. May react violently with combustible materials. |

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|  | **Section 3 : Composition / information on components** |
| **3.1** | **Substances** |
|  | Chemical name: oxygen |
|  | Concentration range: 100% |
|  | CAS Number: 7782-44-7 |
|  | EC number: 231-956-9 |
|  | Index number: 008-001-00-8 |

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|  | **Section 4 : First aid measures** |
| **4.1** | **Description of first aid measures** |
|  | In contact with the skin: Take off contaminated clothing, if possible. Do not move if it sticks permanently to the skin. Direct contact with the liquefied gas may cause frostbite. Pour cold water over the frostbitten part of the body. Do not try to quickly warm up frostbitten parts of the body - warm them up slowly. Cover with a sterile dressing. Contact the doctor. |
|  | In contact with the eyes: Rinse the contaminated eyes with water for 10-15 minutes with the eyelids open. Protect the non-irritated eye, remove contact lenses. In the event of frostbite apply a sterile dressing. Contact an ophthalmologist immediately. |
|  | After inhalation: in the event of symptoms of poisoning, take the injured person into fresh air, place them in a safe position, keep them calm (still), protect against heat loss. If coughing and dyspnoea occur, call a doctor immediately. |
|  | In the event of injection: exposure in this way does not occur. |
| **4.2** | **The most important acute and delayed symptoms and effects of exposure.** |
|  | In contact with the skin: liquefied and highly chilled gas causes frostbite difficult to heal.  In contact with the eyes: contact with liquefied gas may cause frostbite. After exposure by inhalation: long-term inhalation of oxygen at a concentration above 75% causes irritation of the respiratory tract, nausea and dizziness, dyspnoea, convulsions. |
| **4.3** | **Indication of any immediate medical aid and special treatment**  **of the victim.** |
|  | The decision on how to proceed with the rescue is made by the doctor after a thorough assessment of the victim's condition.  Symptomatic treatment. |

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|  | **Section 5: Fire-fighting measures** |
| **5.1** | **Extinguishing media** |
|  | Suitable extinguishing media: Adapt the extinguishing media to the materials stored in the surroundings.  Unsuitable extinguishing media: do not use a solid water stream or fire blankets. |
| **5.2** | **Special hazards arising from the substance or mixture** |
|  | The preparation is not flammable, but it is a strong oxidant. It facilitates ignition and rapidly accelerates the combustion of flammable substances. The substance supports combustion. It is heavier than the air and can accumulate in closed spaces, especially at or below the ground level. |

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| **5.3** | **Information for fire brigades** |
|  | Use general protection measures, typical in the case of fire. Do not stay in the fire endangered area without suitable chemical-resistant clothing and a self-contained breathing apparatus. Compressed gas cylinders that are exposed to fire or high temperatures may explode. Containers exposed to fire should be removed from the hazard zone, if possible, and cooled from a safe distance with a stream of water. Collect fire-fighting water. |

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|  | **Section 6: Proceedings in the case of unintentional release to the environment.** |
| **6.1** | **Individual safety measures, safety equipment and emergency procedures** |
|  | Restrict the access of outsiders to the area of failure until the completion of proper cleaning operations Make sure that the failure and its effects are removed only by trained personnel. In the case of large releases, isolate the endangered area. Use personal protective equipment. Wear self-contained breathing apparatus. Monitor oxygen concentration. Ensure proper ventilation. Avoid contact with eyes and skin, do not inhale the gas. Keep away from sources of ignition, do not smoke. |
| **6.2** | **Environmental precautions** |
|  | Oxygen is a natural constituent of the air, and if released, it will locally freeze the surroundings and gradually evaporate. A release, even of large amounts of the product, should not adversely affect the environment. |
| **6.3** | **Methods and materials preventing the spread of contamination and used for removing contamination** |
|  | Allow to evaporate. Ventilate the contaminated area well. |
| **6.4** | **References to other sections** |
|  | Personal Protection – see section 8 of the sheet. Product waste management - see section 13 of the sheet |

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|  | **Section 7: Handling and storage of substances and mixtures** |
| **7.1** | **Precautions for safe handling** |
|  | When working with the product, observe the general principles of hygiene and occupational health and safety at work, and observe the precautionary measures applicable to any work with compressed gases. Only experienced and properly trained personnel may work with compressed gases. Before starting work, familiarize yourself thoroughly with special precautions and instructions for use. Be careful with all manipulations (depressurization, disconnecting lines), check valves and lines used for filling / emptying containers. Use the recommended personal protection measures. Do not smoke while handling the product. Work involving the production, use and storage of compressed, liquid and dissolved gases is considered to be work involving accident hazards and is prohibited for young people. Protect the cylinders against mechanical damage; do not drag, roll, slide or drop. To move cylinders, even for short distances, use a cart (manual, electric, etc.) intended for transporting cylinders. Never attempt to repair or modify canister valves or overpressure relief devices. Damage to the valves must be reported to the supplier immediately. Keep the canister valve outlet clean and free from contamination, especially oil and water. Close valve after each use and when empty, even if still connected to equipment. Never try to pass gases from one cylinder / container to another. Never use an open flame or electric heating devices to increase the pressure in the container. Do not remove or cover the cylinder contents identification labels attached by the supplier. |

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| **7.2** | **Conditions for safe storage, including information on any mutual incompatibilities** |
|  | Avoid heat, sparks, open flames and other ignition sources. The preparation has strong oxidizing properties. Check the valves tightness. Do not lubricate cylinder valves, reducers with oil or grease (explosion hazard). Store in a cool, dry, well-ventilated storage room, equipped with explosion-proof electrical and ventilation systems. Keep away from heat sources. Store the containers in an upright position. Recommended storage temperature <50 ° C. |
| **7.3** | **Specific end use (s)** |
|  | Not specified. |

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|  | **Section 8 : Exposure control / Personal protection measures** |
| **8.1** | **Control parameters**  No maximum permissible concentrations in the work environment have been determined for the substance (legal basis: Journal of Laws of 2018, item 1286 as amended). |
| **8.2** | **Exposure Control** |
|  | Comply with the generals principles of occupational health and safety. Ensure appropriate ventilation. Do not eat, drink or smoke while working. Wash hands before breaks and after finishing work. Perform leakage tests in pressure systems. Use gas detectors when there is a possibility of releasing oxidizing gases.  Hand and body protection  Wear heat-insulating protective gloves when you come into contact with liquid or compressed gas. Recommended gloves: protecting against mechanical risks in accordance with the standards in accordance with EN 388. Wear protective clothing. Wear safety shoes compliant with EN ISO 20345 when transporting / handling the cylinder.  The material from which the gloves are made must be impermeable and resistant to the product. The choice of material should be made taking into account breakthrough times, permeation rates and degradation. Furthermore, the selection of the appropriate gloves does not only depend on the material, but also on other quality characteristics and varies from manufacturer to manufacturer. The exact break through time should be obtained from the manufacturer of the gloves and must be observed.  Eye protection  Wear tight protective glasses according to EN 166 if there is a risk of eye contamination. Respiratory protection  It is not required for normal and intended use. |
|  | The personal protective equipment used must meet the requirements of the Regulation No 2016/425/EU. The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning. |
|  | Environmental exposure control  Avoid direct emissions of gas into the atmosphere. |

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|  | **Section 9 : Physical and chemical properties** |
| **9.1** | **Information on basic physical and chemical properties** |
|  | state of aggregation: gas  colour: colouress  odour: odourless  odour threshhold: not applicable  pH value: not applicable  melting / solidification point: -219 C |

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|  | initial boiling point  and boiling temperature range: - 183 C  flash point: not applicable  evaporation rate: not marked  flammability (solid, gas): non-flammable gas  upper / lower explosion limit: not marked  vapour pressure: not marked  vapour density: 0,0013 g/cm3 (21 °C)  relative density: 1,1 (woda = 1)  solubility: ⇥ soluble in water (0,039 g/l) partition coefficient: n-octanol/water: ⇥ not applicable to inorganic gases self-ignition temperature: ⇥ the product is not self-igniting |
|  | decomposition temperature: not marked  explosive properties: does not display  oxidizing properties: very strong  viscosity: not applicable |
| **9.2** | **Other information**  oxygen equivalence ratio (Ci): 1 |

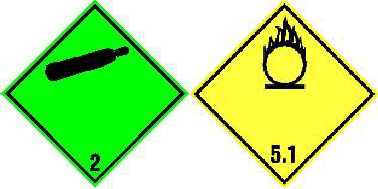
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|  | **Section 10 : Stability and reactivity** |
| **10.1** | **Reactivity** |
|  | Gas under pressure, may explode if heated. Strong oxidizer. Hazardous polymerization does not occur. |
| **10.2** | **Chemical stability** |
|  | The substance is stable under normal handling and storage conditions. |
| **10.3** | **Possibility of hazardous reactions** |
|  | Violently oxidizes organic substances. |
| **10.4** | **Conditions to avoid** |
|  | Avoid heat sources, direct sunlight and excessive heating. |
| **10.5** | **Incompatible materials** |
|  | Organic materials, oils, greases, combustible materials. |
| **10.6** | **Hazardous decomposition products** |
|  | Not known. |

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|  | **Section 2: toxicological information** |
| **11.1** | **Information on toxicological effects** |
|  | Information on acute and / or delayed effects of exposure was determined on the basis of information on product classification and / or toxicological tests, as well as the manufacturer's knowledge and experience. |
|  | Acute toxicity  Based on available data, the classification criteria are not met. |
|  | Corrosive / irritating effect on the skin  Based on available data, the classification criteria are not met. Serious eye damage/irritation effect on the skin  Based on available data, the classification criteria are not met. Respiratory or skin sensitization  Based on available data, the classification criteria are not met. |

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| Mutagenic effect on reproductive cells  Based on available data, the classification criteria are not met. |
| Carcinogenic effect  Based on available data, the classification criteria are not met. |
| Toxicity for reproduction  Based on available data, the classification criteria are not met. |
| Toxic effect on target organs - single exposure Based on the available data, the classification criteria are not met. Specific target organ toxicity - repeated exposure Based on the available data, the classification criteria are not met. Aspiration hazard  Based on available data, the classification criteria are not met. |
| Symptoms related to the physical, chemical and toxicological characteristics |
| Sharply expanding gas causes a significant lowering of the temperature and may cause thermal damage to the skin and eyes. In high concentrations, it damages the lung tissue; under high pressure it acts on the central nervous system. Short-term inhalation of pure oxygen does not cause changes; after a few hours a cough and dryness of the mucous membranes of the upper respiratory tract may occur. Exposure to inhalation of pure oxygen (at a pressure of 1 Atm) for more than 14 hours causes coughing and dyspnoea due to damage to the alveolar vessels and leakage into the interstitial lung tissue. Haemoptysis may occur. Inhaling oxygen at a pressure greater than 2 Atm causes coughing, disturbance of consciousness, convulsions, damage to the retina, muscle paralysis, and death. The consequence of acute poisoning may be lung tissue fibrosis with permanent respiratory failure. Inhaling oxygen at a pressure higher than 2 Atm may cause disorders of the central respiratory system with the following symptoms: dizziness, impaired coordination of movements, tingling sensation, visual and hearing impairment. Exposure to oxygen in high concentrations (100%) can damage the retina. |

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|  | **Section 12: ecological information** |
| **12.1** | **Toxicity** |
|  | The product is not classified as hazardous to the aquatic environment. Oxygen is a natural  component of the environment. |
| **12.2** | **Persistence and degradability** |
|  | Not applicable |
| **12.3** | **Bioaccumulative potential** |
|  | Oxygen is a natural component of living organisms. |
| **12.4** | **Mobility in soil** |
|  | The product is soluble in water and may be present in the soil. |
| **12.5** | **Results of PBT and vPvB assessment** |
|  | The substance does not meet the PBT or vPvB criteria according to Annex XIII of the REACH Regulation. |
| **12.6** | **Other harmful effects of action** |
|  | Oxygen occurs naturally in the air. |



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|  | **Section 13 :⇥Waste treatment** |
| **13.1** | **Waste neutralization methods** |
|  | Substance recommendations: residual oxygen remaining in the cylinder can be considered waste and should be slowly vented into the atmosphere in the open. Do not vent in any place where the gas could hazardously accumulate. |
|  | Recommendations for used packaging: hand over emptied packaging to an authorized waste recipient or to the producer. Proposed waste code: 16 05 04 \* [Gases in containers (including halons) containing dangerous substances]. |
|  | EU legal acts: directives of the European Parliament and of the Council: 2008/98 / EC as amended, 94/62 / EC, as amended  National legal acts: Journal of Laws of 2013, item 21 as amended, Journal of Laws of 2013, item 888 as amended) |

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| **Section 14 : Information pertaining to transport** | | |
| **14.1** | **UN number (the UNO number)** |  |
|  | UN No. 1072 |  |
| **14.2** | **UN proper shipping name** |  |
|  | COMPRESSED OXYGEN |
| **14.3** | **Transport hazard class(es)** |
|  | 2, sticker 2.2 + 5.1 |  |
| **14.4** | **Packing group** |  |
|  | Not applicable |  |
| **14.5** | **Environmental hazards** |  |
| The substance does not pose a threat to the environment in accordance with the criteria included in the transport regulations. | | |
| **14.6** | **Special precautions for users** |  |
| Avoid transport on vehicles where the load space is not separated from the driver's compartment. Before transporting the product containers:   * Ensure that portable tanks are securely fastened. * Ensure that the cylinder valve is closed and tight. * Ensure that the valve nut or plug (if available) is properly fitted. * Ensure that the valve cover (if available) is properly fitted. * Ensure appropriate ventilation. | | |
| **14.7** | **Bulk transport in accordance with Annex II to the MARPOL Convention 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** |
|  | The Act of 25 February 2011 on chemical substances and mixtures (Journal of Laws 2001, No. 63, item 322 as  amended).  Regulation of Minister of Labour and Social Policy of 12th June 2018 on maximum permissible concentration and intensity of agents harmful to health in the working environment (Journal of Laws of 2018, item 1286 as amended).  European ADR agreement on the international carriage of dangerous goods by road.  The Waste Act of December 14, 2012 (Journal of Laws of 2013, item 21 as amended) |

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|  | The Act of June 13, 2013 on the management of packaging and packaging waste (Journal of Laws of 2013, item 888 as  amended).  Regulation of the Minister of Climate of 2 January 2020 on the waste catalogue (Journal of Laws 2020, item 10).  Regulation of the Minister of Health of 2 February 2011. on tests and measurements of health hazard factors in the work environment (Journal U. No. 33, item 166 as amended).  **2016/425 / EU** Regulation of the European Parliament and of the Council of 9 March 2016 on individual protection measures  and repealing the Council Directive 89/686 / EEC.  **1907/2006/WE** Regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45 / EC and repealing Council Regulation (EEC) No. 793/93 and 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, as amended.  **1272/2008/EC** Regulation of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC, and amending Regulation (EC) No 1907/2006 as amended.  **2015/830/EC** Commission Regulation of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).  **2008/98/EC** Directive of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain directives as amended.  **94/62/WE** Directive of the European Parliament and of the Council of 20 December 1994 on packaging and packaging  waste, as amended. |
| **15.2** | **Chemical safety assessment** |
|  | Chemical safety assessment for the substance has not been made. |

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| **Section 16 : Other information** |
| Clarification of abbreviations and acronyms  PBT PBT persistent, bioaccumulative and toxic substance vPvB Very persistent and very bioaccumulative substances |
| Training courses  Before starting work with the product, the user should learn the OHS regulations regarding handling chemicals, and in particular, undergo appropriate workplace training.  Persons associated with the transport of hazardous materials, in accordance with the ADR Agreement, should be properly trained in the scope of their duties (general training, workplace training and safety training). |
| Key literature references and sources for data  The data sheet was developed on the basis of the safety data sheet provided by the manufacturer, literature data, internet databases (e.g. ECHA, TOXNET, COSING) and the possessed knowledge and experience, taking into account the currently applicable legal regulations. |
| Additional information  Date of issue: 04/11/2020  Version: 1.0/EN  The card issued by: **„THETA”** Doradztwo Techniczne (based on manufacturer's data) |
| The above information was developed on the basis of currently available data characterizing the products, as well as the experience and knowledge of the manufacturer. They do not constitute a quality description of the product or promise of specific properties. They should be treated as an aid for safe handling in transport, storage and use of the product. This does not release the user from responsibility for the improper use of the above information and from complying with all legal standards in this area. |

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