

The Asia Industrial Gases Association (AIGA) was established in year 2002 by the leading industrial gases producers operating in Asia (excluding Middle East, Japan, Australia, New Zealand and the South Pacific nations).

AIGA is a technical and safety oriented organization with the purpose of promoting safety, health, environmental awareness and security in the production, distribution and use of industrial gases.

AIGA is registered as a non-profit society based in Singapore. It aims to foster the exchange of technical information among its members in the safe handling and use of industrial, medical and carbon dioxide gases, and to have close liaison with national authorities, in order to work towards the highest level of safety and environmental care across Asian countries. AIGA actively participates in the harmonization of standards across the gas industry on a global level with other Regional Gases Associations in Europe, Japan and the United States (EIGA, JIMGA and CGA).

Id	Publication Name	Id	Publication Name
AIGA OWN AND HARMONIZED			
118/21	Industrial Gas Pipeline Integrity Management	103/19	Guidelines for safe and hygienic handling of dry ice
117/21	Plant Integrity Management	102/19	Safety guidelines: prevention of wheel detachment
116/21	Static Vacuum Insulated Cryogenic Vessels Operation and Inspection	101/19	A reference guide on cryogenic tanker product conversion
115/21	ICH Q3D Risk Assessment Report Elemental Impurities in Medicinal Gases	100/18	Hydrogen pressure swing absorber (PSA) mechanical integrity requirements
114/21	Safe Catalyst Handling in Hyco Plants	099/20	Process safety management framework guidance document
113/20	Safe Design And Operation Of On Site Generation Of Oxygen 93% For Medicinal Use	098/17	A reference guide for industrial gas cylinder valve outlet connections
112/20	Solvents For Acetylene Filling	097/17	Reference guide on medicinal gas cylinder valves
111/20	Design Considerations And Guidance For The Safe Use Of Medical Gas VIPR	096/16	Code of practice hydrogen selenide H2SE
110/20	HYCO Plant Gas Leak Detection And Response Practices	095/16	Mechanical integrity of syngas outlet systems
109/20	Pre-fill inspection of customer owned Cylinders	094/17	Design, manufacture, installation, operation, and maintenance of valves used in liquid oxygen and cold gaseous oxygen systems
108/20	Guideline for safe handling of liquid containers on wheel bases	093/16	Guideline for the location of occupied buildings in industrial gas plants
107/19	Alternatives to hydraulic testing of gas cylinders	092/20	Prevention of tow-away incidents
106/19	Vacuum-jacketed piping in liquid oxygen service	091/21	Guidance for qualifying customers purchasing compressed gases
105/19	Guidelines for cleaning externally contaminated medical gas containers	090/14	A reference guide for requalification of gas cylinders
104/19	Safety principles for pressure regulators for medical oxygen cylinders	089/14	Reciprocating cryogenic pumps and pump installations

088/14	Labelling of medical gas containers	081/20	Safe practices for storage and handling of nitrous oxide
087/20	Standard for hydrogen piping systems at user locations	080/16	Safe practices for the production of nitrous oxide from ammonium nitrate
086/21	Safe startup and shutdown practices for steam reformers	079/18	Safe design and operation of cryogenic enclosures
085/21	Liquid oxygen, nitrogen and argon cryogenic tanker loading systems	078/12	International harmonization council work process
084/13	Methodology to establish a “product carbon footprint”	077/20	Guidelines for handling externally contaminated medical cylinders in a pandemic situation
083/21	Disposal of gases	076/21	Safe use of aluminum-structured packing for oxygen distillation
082/20	Combustion safety for steam reformer operation	075/20	Calculation method for the analysis and prevention of overpressure during refilling of cryogenic tanks with rupture disk(s)
081/20	Safe practices for storage and handling of nitrous oxide	074/20	Safe handling of liquid carbon dioxide containers that have lost pressure
080/16	Safe practices for the production of nitrous oxide from ammonium nitrate	073/20	Tap water corrosion of composites with aa 6061 liners
079/18	Safe design and operation of cryogenic enclosures	072/20	Guidelines for transport by sea of multiple element gas containers(MEGCS) and portable tanks for transport of gases
078/12	International harmonization council work process	071/13	Centrifugal compressors for oxygen service
077/20	Guidelines for handling externally contaminated medical cylinders in a pandemic situation	070/20	Leak detection fluids cylinder packages
076/21	Safe use of aluminum-structured packing for oxygen distillation	069/10	Recommendations for safe filling of CO2 cylinders and bundles
075/20	Calculation method for the analysis and prevention of overpressure during refilling of cryogenic tanks with rupture disk(s)	068/20	Carbon dioxide
074/20	Safe handling of liquid carbon dioxide containers that have lost pressure	067/17	Safe location of oxygen and inert gas vents
073/20	Tap water corrosion of composites with aa 6061 liners	066/18	Selection of personal protective equipment
072/20	Guidelines for transport by sea of multiple element gas containers(MEGCS) and portable tanks for transport of gases	065/21	Avoidance of failure of co and of CO/CO2 mixtures cylinders
071/13	Centrifugal compressors for oxygen service	063/16	Use of residual pressure valves
086/21	Safe startup and shutdown practices for steam reformers	062/09	Methods to avoid and detect internal gas cylinder corrosion
085/21	Liquid oxygen, nitrogen and argon cryogenic tanker loading systems	061/13	Safe use of gas cylinders in marine service
084/13	Methodology to establish a “product carbon footprint”	078/12	International harmonization council work process
083/21	Disposal of gases	077/20	Guidelines for handling externally contaminated medical cylinders in a pandemic situation
082/20	Combustion safety for steam reformer operation	076/21	Safe use of aluminum-structured packing for oxygen distillation

075/20	Calculation method for the analysis and prevention of overpressure during refilling of cryogenic tanks with rupture disk(s)	049/17	Guideline to medical oxygen supply system for healthcare facilities
074/20	Safe handling of liquid carbon dioxide containers that have lost pressure	048/18	Reciprocating compressors for oxygen service
073/20	Tap water corrosion of composites with aa 6061 liners	047/16	The safe preparation of gas mixtures
072/20	Guidelines for transport by sea of multiple element gas containers(MEGCS) and portable tanks for transport of gases	046/08	Periodic inspection of static cryogenic vessels
071/13	Centrifugal compressors for oxygen service	045/07	Gaseous hydrogen stations
070/20	Leak detection fluids cylinder packages	044/20	Flexible connections in high pressure gas systems
069/10	Recommendations for safe filling of CO2 cylinders and bundles	043/07	Transport security guidelines
068/20	Carbon dioxide	042/16	Work injury & product vehicle accident statistics
067/17	Safe location of oxygen and inert gas vents	041/06	Defensive driving
066/18	Selection of personal protective equipment	040/06	Good practices guide for loading and unloading of cryogenic liquid tankers
065/21	Avoidance of failure of co and of CO/CO2 mixtures cylinders	039/16	Road transport/product delivery emergency preparedness
063/16	Use of residual pressure valves	038/20	Vertical cylinder handling and transportation
062/09	Methods to avoid and detect internal gas cylinder corrosion	037/16	Permissible charge/filling conditions for acetylene cylinders, bundles, & battery vehicles
061/13	Safe use of gas cylinders in marine service	036/21	Guidelines for the management of waste acetylene cylinders
060/17	Safe installation and operation of PSA and membrane oxygen and nitrogen generators	035/20	Safe operation of reboilers/condensers in air separation units
059/17	Use of non-metallic materials in high pressure oxygen breathing gas applications	034/06	Carbon monoxide and syngas pipeline systems
058/16	Safe preparation of compressed oxidant-fuel gas mixtures in cylinders	033/14	Hydrogen pipeline systems
057/18	Safe use of brazed aluminum heat exchangers for producing pressurized oxygen	032/19	Perlite management
056/20	Safe practices guide for cryogenic air separation plants	031/20	Bulk liquid oxygen, nitrogen and argon storage systems at production sites
055/20	Installation guide for stationary electric-motor driven centrifugal liquid oxygen pumps	030/13	Storage of cryogenic air gases at users' premises
054/08	Prevention of excessive pressure during filling of cryogenic vessels	029/18	Code of practice nitrogen trifluoride
053/19	Code of practice compressed fluorine and mixtures with inert gases	028/06	Unmanned air gas plant: design & operation
052/16	Storage and handling of silane and silane mixtures	027/06	Cryogenic vaporization systems – prevention of brittle fracture of equipment and piping
051/20	Code of practice phosphine	026/13	Principles for the safe handling and distribution of highly toxic gases and mixtures
050/20	Code of practice arsine	025/13	Pressure containers with blocked or inoperable valves

024/10	Connections for transportable and static bulk storage tanks	022/20	Safety Inspection Check List of Air Separation Units and Cryogenic Liquid Storages at plant site
023/17	Good manufacturing practice guide for medicinal gases	021/20	Covid-19 - Measures to disinfect externally contaminated gas packages
022/13	Code of practice acetylene	020/19	A Guide on Minimum Safety Requirements for Customers' Self Pick Up Vehicles
021/20	Oxygen pipeline and piping systems	019/19	Guidline on Monitoring and Management High Risk Drivers
019/17	Connections for portable liquid cylinders	018/19	Armed and Unarmed Guards at Facilities
018/15	Safe handling of electronic specialty gases	016/19	Receiving cylinders after natural disaster exposure
017/05	Labelling of gas containers (including associated equipment)	015/19	Handling cylinders after natural disaster exposure
016/04	Safety features of portable cryogenic liquid containers for industrial and medical gases	014/19	Liquid nitrogen in molecular cooking
015/15	Safe management of contractors	013/18	Carbon dioxide physiological hazards "Not just an Asphyxiant!"
014/20	Safety audit guidelines	012/18	Transportation safety - challenges & improvement strategy
013/05	Incident/accident investigation and analysis	011/18	Human behavior within transport operations
012/19	Cleaning of equipment for oxygen service	010/17	Prevention of accidents due to overheated or burning tyres
011/04	Work permit systems	008/17	In-cab camera and how does it help to improve road safety
010/19	Management of change	007/11	Safety at customer sites
009/21	Safety training of employees	006/10	Safe handling of compressed gases in the laboratory and plant
008/18	Hazards of oxygen deficient atmospheres	005/10	Recent cases of asphyxiation in confined spaces in Asia
007/04	Job motivation and safe operations in cylinder filling stations	004/20	Potential hazards of quick release cylinder valves used with firefighting gases
006/15	Good environmental management practices for the industrial gas industry	003/06	Safe operation of fork lift trucks
005/18	Fire hazards of oxygen and oxygen-enriched atmospheres	002/20	Influenza and Coronavirus Pandemic
004/13	Handling gas container emergencies	001/05	Safe use of acetylene
003/18	Site security guidelines	Safety Poster	
Safety Bulletin		011/21	Safe Transport of Cylinder Gases* and Portable Liquid Containers
028/21	Vehicle Data Management	010/21	Safe Transport of Dry Ice
027/21	Vehicle Specification and Maintenance	009/20	Safe practice for pressure check on Oxygen/Oxidizer Cylinder
026/21	Acetylene Plant Safe Operating Pressures and Temperatures	008/20	Covid-19: external cleaning & handling of medical gas cylinders
025/21	Workplace Safety	007/19	Process safety
024/21	Abuse of Gases	006/19	Safe handling of cylinders
023/20	Service Life of Valves With Integrated Pressure Regulators (VIPRs) Fitted to Medical Gas Cylinders	005/17	Asphyxiation

004/17	Driver distraction due to mobile phone use, series 2.0	021/16	Safe filling of open top safe filling of open top dewars and flasks from cryogenic
003/17	Driver distraction due to mobile phone use	020/16	Safe visits to customer site for occasional visitors from industrial gas companies
002/15	Driver fatigue, series 2.0	019/16	Recent (2015) incidents in the gases industry in Asia
001/15	Driver fatigue	018/15	Vehicle rollover prevention
Position Paper		016/15	Driver fatigue management
007/21	Conversion of Cryogenic Transport Tankers/ ISO Containers from Hydrocarbon / Flammable service to Liquid Oxygen service	015/15	Pre-fill inspection of gas cylinders
005/18	Long-term durability of steel gas cylinder	014/15	Recent (recent (2014) incidents in the gases industry in the gases industry in Asia
004/11	Trans filling of medical gas cylinders	013/13	Recent incidents in the gases industry in Asia
003/10	Tapered and parallel (straight) threads in aluminum alloy cylinders	012/12	Recent incidents in the gases industry in the gases industry in Asia
002/18	Memorandum of understanding gas cylinder ownership and responsibility in Asian countries	011/20	Safe use and handling of portable liquid cylinders (PLCS)
001/06	Good manufacturing practice guide for medicinal gases	010/12	Safe driving in bad weather conditions
Training Package		009/12	Recent incidents in the gases industry in the gases industry in Asia
029/21	Recent (3Q & 4Q of 2020) Incidents in the Gases Industry* in Asia	008/11	Recent incidents in the gases industry in the gases industry in Asia
028/20	Recent (H1 of 2020) Accidents/Incidents in the Gases Industry in Asia	007/20	Near misses specialty gases
027/20	Recent (3Q & 4Q of Year 2019) Accidents/Incidents in the Gases Industry in Asia	006/06	Work permit system
026/20	Filling Liquefied Gases in Cylinders - Hazards & Safeguards	005/05	prevention of over – pressurization
025/20	Recent (1Q & 2Q of 2019) accidents/incidents in the gases industry in Asia	004/05	Slips, trips and falls
024/19	Recent (2018) accidents / incidents in the gases industry in Asia	003/05	Safe storage, handling & use of compressed gases
023/18	Recent (2017) accidents / incidents in the gases industry in Asia	002/05	Fire hazards of oxygen and oxygen enriched atmospheres
022/17	Recent (2016) accidents / incidents in the gases industry in Asia	001/04	Oxygen deficiency

AIGA is registered as a non-profit society based in Singapore. It aims to foster the exchange of technical information among its members in the safe handling and use of industrial, medical and carbon dioxide gases, and to have close liaison with national authorities, in order to work towards the highest level of safety and environmental care across Asian countries.

©AIGA 2021 Reproduction without express written consent of AIGA is prohibited. Contact to aigasec@asiaiga.org



Asia Industrial Gases Association

No 2 Venture Drive, #22-28 Vision Exchange, Singapore 608526

Tel: +65 67055642 Fax: +65 68633307

Internet : <http://www.asiaiga.org> LinkedIn: <https://www.linkedin.com/company/asiaigaorg>