

Summary document for the catalogue of questions "Gas"

Number	Source	Response	Remarks	Dealt with on
Knowledge of physics and chemistry				
Objective 1.1				
231 01.1-01	Boyle-Mariotte law: $pV=\text{constant}$	C		28.09.2016
231 01.1-02	Boyle-Mariotte law: $pV=\text{constant}$	C		10.12.2020
231 01.1-03	Boyle-Mariotte law: $pV=\text{constant}$	B	Only in German	10.12.2020
231 01.1-04	Boyle-Mariotte law: $pV=\text{constant}$	A		28.09.2016
231 01.1-05	Boyle-Mariotte law: $pV=\text{constant}$	B		28.09.2016
231 01.1-06	Gay-Lussac law: $p/T=\text{constant}$	C		28.09.2016
231 01.1-07	Gay-Lussac law: $p/T=\text{constant}$	D		10.12.2020
231 01.1-08	Gay-Lussac law: $p/T=\text{constant}$	B		20.09.2018
231 01.1-09	Gay-Lussac law: $p/T=\text{constant}$	C		20.09.2018
231 01.1-10	Gay-Lussac law: $p/T=\text{constant}$	B		28.09.2016
Objective 1.2				
231 01.2-01	Fundamental law of gases: $pV/T=\text{constant}$	A		28.09.2016
231 01.2-02	Fundamental law of gases: $pV/T=\text{constant}$	B	Only in German	10.12.2020
231 01.2-03	Fundamental law of gases: $pV/T=\text{constant}$	D	Only in German	10.12.2020
231 01.2-04	Fundamental law of gases: $pV/T=\text{constant}$	C		20.09.2018
231 01.2-05	Fundamental law of gases: $pV/T=\text{constant}$	D		28.09.2016
231 01.2-06	Fundamental law of gases: $pV/T=\text{constant}$	B		28.09.2016
231 01.2-07	Fundamental law of gases: $pV/T=\text{constant}$	A		28.09.2016
231 01.2-08	Fundamental law of gases: $pV/T=\text{constant}$	B		28.09.2016
231 01.2-09	Fundamental law of gases: $pV/T=\text{constant}$	A		28.09.2016
231 01.2-10	Fundamental law of gases: $pV/T=\text{constant}$	C		28.09.2016
Objective 2.1				
231 02.1-01	Partial pressure – definitions	B		10.12.2020
231 02.1-02	Partial pressure – definitions	C		10.12.2020
231 02.1-03	$p_{\text{tot}} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{\text{tot}}$	D		20.09.2018
231 02.1-04	$p_{\text{tot}} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{\text{tot}}$	C		28.09.2016
231 02.1-05	$p_{\text{tot}} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{\text{tot}}$	B		28.09.2016

Number	Source	Response	Remarks	Dealt with on
231 02.1-06			deleted	06.06.2011
231 02.1-07	$p_{tot} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{tot}$	B		28.09.2016
231 02.1-08	$p_{tot} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{tot}$	C		28.09.2016
231 02.1-09	$p_{tot} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{tot}$	D		28.09.2016
Objective 2.2				
231 02.2-01	$p_{tot} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{tot}$ and $p * V = constant$	B		28.09.2016
231 02.2-02	$p_{tot} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{tot}$ and $p * V = constant$	D		10.12.2020
231 02.2-03	$p_{tot} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{tot}$ and $p * V = constant$	B		10.12.2020
231 02.2-04	$p_{tot} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{tot}$ and $p * V = constant$	D		10.12.2020
231 02.2-05	$p_{tot} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{tot}$ and $p * V = constant$	A		10.12.2020
231 02.2-06	$p_{tot} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{tot}$ and $p * V = constant$	C		28.09.2016
231 02.2-07	$p_{tot} = \sum p_i$ and Vol.-% = $p_i \times 100 / p_{tot}$ and $p * V = constant$	C		10.12.2020
231 02.2-08	Characteristics of substances	D		28.09.2016
Objective 3.1				
231 03.1-01	1 kmol ideal gas = 24 m ³ at 100 kPa and 25 °C, quantity of substance = M *mass [kg]	B		28.09.2016
231 03.1-02	1 kmol ideal gas = 24 m ³ at 100 kPa and 25 °C, quantity of substance = M *mass [kg]	A		28.09.2016
231 03.1-03	1 kmol ideal gas = 24 m ³ at 100 kPa and 25 °C, quantity of substance = M *mass [kg]	B		28.09.2016
231 03.1-04	1 kmol ideal gas = 24 m ³ at 100 kPa and 25 °C, quantity of substance = M *mass [kg]	A		28.09.2016
231 03.1-05	1 kmol ideal gas = 24 m ³ at 100 kPa and 25 °C, quantity of substance = M *mass [kg]	B		10.12.2020
231 03.1-06	1 kmol ideal gas = 24 m ³ at 100 kPa and 25 °C, quantity of substance = M *mass [kg]	C		10.12.2020
231 03.1-07	1 kmol ideal gas = 24 m ³ at 100 kPa and 25 °C, quantity of substance = M *mass [kg]	B		28.09.2016

Number	Source	Response	Remarks	Dealt with on
231 03.1-08	1 kmol ideal gas = 24 m ³ at 100 kPa and 25 °C, quantity of substance = M *mass [kg]	D		10.12.2020
231 03.1-09	1 kmol ideal gas = 24 m ³ at 100 kPa and 25 °C, quantity of substance = M *mass [kg]	C		28.09.2016
231 03.1-10	1 kmol ideal gas = 24 m ³ at 100 kPa and 25 °C, quantity of substance = M *mass [kg]	C		28.09.2016
Objective 3.2				
231 03.2-01	$m = 0,12 * p * M * V / T$	B		28.09.2016
231 03.2-02	$m = 0,12 * p * M * V / T$	A		28.09.2016
231 03.2-03	$m = 0,12 * p * M * V / T$	B		28.09.2016
231 03.2-04	$m = 0,12 * p * M * V / T$	C		28.09.2016
231 03.2-05	$m = 0,12 * p * M * V / T$	A		28.09.2016
231 03.2-06	$m = 0,12 * p * M * V / T$ or $p = m * T / (0,12 * M * V)$	D		28.09.2016
231 03.2-07	$m = 0,12 * p * M * V / T$ or $p = m * T / (0,12 * M * V)$	D		28.09.2016
231 03.2-08	$m = 0,12 * p * M * V / T$ or $p = m * T / (0,12 * M * V)$	C		28.09.2016
231 03.2-09	$m = 0,12 * p * M * V / T$ or $p = m * T / (0,12 * M * V)$	D		28.09.2016
231 03.2-10	$m = 0,12 * p * M * V / T$ or $p = m * T / (0,12 * M * V)$	D		20.09.2018
Objective 4.1				
231 04.1-01	$m = \rho_{t1} * V_{t1} = \rho_{t2} * V_{t2}$ (with tables)	C		10.12.2020
231 04.1-02	$m = \rho_{t1} * V_{t1} = \rho_{t2} * V_{t2}$ (with tables)	B		10.12.2020
231 04.1-03	$m = \rho_{t1} * V_{t1} = \rho_{t2} * V_{t2}$ (with tables)	C		10.12.2020
231 04.1-04	$m = \rho_{t1} * V_{t1} = \rho_{t2} * V_{t2}$ (with tables)	B		10.12.2020
231 04.1-05	$m = \rho_{t1} * V_{t1} = \rho_{t2} * V_{t2}$ (with tables)	B		06.06.2011
231 04.1-06	$m = \rho_{t1} * V_{t1} = \rho_{t2} * V_{t2}$ (with tables)	C		06.06.2011
231 04.1-07	$m = \rho_{t1} * V_{t1} = \rho_{t2} * V_{t2}$ (with tables)	C		06.06.2011
231 04.1-08	$m = \rho_{t1} * V_{t1} = \rho_{t2} * V_{t2}$ (with tables)	B		06.06.2011
231 04.1-09	$m = \rho_{t1} * V_{t1} = \rho_{t2} * V_{t2}$ (with tables)	C		06.06.2011
231 04.1-10	$m = \rho_{t1} * V_{t1} = \rho_{t2} * V_{t2}$ (with tables)	B		06.06.2011
Objective 4.2				
231 04.2-01			deleted (2011)	06.06.2011
231 04.2-02			deleted (2011)	06.06.2011
231 04.2-03			deleted (2011)	06.06.2011
231 04.2-04			deleted (2011)	06.06.2011

Number	Source	Response	Remarks	Dealt with on
231 04.2-05			deleted (2011)	06.06.2011
231 04.2-06			deleted (2011)	06.06.2011
231 04.2-07			deleted (2011)	06.06.2011
231 04.2-08			deleted (2011)	06.06.2011
231 04.2-09			deleted (2011)	06.06.2011
231 04.2-10			deleted (2011)	06.06.2011
Objective 5				
231 05.0-01	Critical pressure and temperature	A		10.12.2020
231 05.0-02	Critical pressure and temperature	C		10.12.2020
231 05.0-03	Critical pressure and temperature	B		10.12.2020
231 05.0-04	Critical pressure and temperature	A		10.12.2020
Objective 6.1				
231 06.1-01	Polymerization	C		06.06.2011
231 06.1-02	Polymerization	A		30.09.2014
231 06.1-03	Polymerization	B		06.06.2011
231 06.1-04	Polymerization	B		30.09.2014
231 06.1-05	Polymerization	D		10.12.2020
Objective 6.2				
231 06.2-01	3.2.3.2, Table C	C		30.09.2014
231 06.2-02	Polymerization	C		10.12.2020
231 06.2-03	Polymerization	D		28.09.2016
231 06.2-04	Polymerization	A		06.06.2011
231 06.2-05	3.2.3.2, Table C	A		10.12.2020
231 06.2-06	3.2.3.2, Table C	D		28.09.2016
231 06.2-07	Polymerization	B		10.12.2020
231 06.2-08			deleted (2007)	06.06.2011
231 06.2-09	Polymerization	C		10.12.2020
Objective 7.1				
231 07.1-01	Vapour pressure	A		06.06.2011
231 07.1-02	Vapour pressure	B		30.09.2014
231 07.1-03	Vapour pressure	C		30.09.2014
231 07.1-04	Vapour pressure	D		06.06.2011
231 07.1-05	Vapour pressure	A		06.06.2011
231 07.1-06	Vapour pressure	B		10.12.2020
231 07.1-07	Vapour pressure	C		06.06.2011
231 07.1-08	Vapour pressure	D		06.06.2011
231 07.1-09	Vapour pressure	A		06.06.2011
231 07.1-10	Vapour pressure	B		28.09.2016

Number	Source	Response	Remarks	Dealt with on
231 07.1-11	Influence on the cargo of an increase in temperature	B		28.09.2016
231 07.1-12	Change in cargo temperature, general knowledge	B		28.09.2016
231 07.1-13	Characteristics of substances, 1.2.1	A		30.09.2014
231 07.1-14	Characteristics of substances	B		30.09.2014
Objective 7.2				
231 07.2-01			deleted (2007)	06.06.2011
231 07.2-02			deleted (2007)	06.06.2011
231 07.2-03	Increase in temperature in the cargo tank	C		28.09.2016
231 07.2-04	Pressure in the cargo tank	D		28.09.2016
231 07.2-05	Behaviour of pressure in the cargo tank	C		20.09.2018
231 07.2-06	Behaviour of pressure in the cargo tank	D		10.12.2020
231 07.2-07			deleted (2007)	06.06.2011
231 07.2-08	Vapour saturation pressure	B		20.09.2018
231 07.2-09	Liquefying of gas	A		20.09.2018
Objective 8.1				
231 08.1-01	Saturation vapour pressure, depending on composition	B		06.06.2011
231 08.1-02	Saturation vapour pressure, depending on composition	C		06.06.2011
231 08.1-03	Saturation vapour pressure, depending on composition	A		06.06.2011
231 08.1-04			deleted (2007)	06.06.2011
231 08.1-05			deleted (2007)	06.06.2011
231 08.1-06			deleted (2007)	06.06.2011
Objective 8.2				
231 08.2-01	Health risks	C		06.06.2011
231 08.2-02	Health risks	B		06.06.2011
231 08.2-03	Health risks	B		10.12.2020
231 08.2-04	Health risks	C		10.12.2020
231 08.2-05	Health risks	A		13.09.2012
231 08.2-06	Hazard characteristics	C		13.09.2012
231 08.2-07	Hazard characteristics	C		10.12.2020
231 08.2-08	Hazard characteristics	C		10.12.2020
231 08.2-09	Characteristics of substances	D		30.09.2014
231 08.2-10	Characteristics of substances	C		30.09.2014

Number	Source	Response	Remarks	Dealt with on
231 08.2-11	Characteristics of substances	A		28.09.2016
Objective 9				
231 09.0-01	Polymerization	A		06.06.2011
231 09.0-02	Molecular mass	D		30.09.2014
231 09.0-03	Molecular mass	C		30.09.2014
231 09.0-04	Molecular mass	B		30.09.2014
231 09.0-05	Molecular mass	A		30.09.2014
231 09.0-06			deleted (2007)	06.06.2011
231 09.0-07			deleted (2007)	06.06.2011
231 09.0-08	Molecular mass	A		30.09.2014
Practice				
Objective 1.1				
232 01.1-01	Flushing in the event of a change of cargo	C		10.12.2020
232 01.1-02	Flushing in the event of a change of cargo	C		10.12.2020
232 01.1-03	Table C, column (20), remark 2	A		10.12.2020
232 01.1-04	Flushing in the event of a change of cargo	A		10.12.2020
232 01.1-05	Flushing in the event of a change of cargo	D		10.12.2020
232 01.0-06	9.3.1.21.12	C		28.09.2016
Objective 1.2				
232 01.2-01	Table C, column (20), remark 2	D		10.12.2020
232 01.2-02	Table C, column (20), remark 2	C		10.12.2020
232 01.2-03	Table C, column (20), remark 2	B		10.12.2020
232 01.2-04	Table C, column (20), remark 2	B		10.12.2020
232 01.2-05	Table C, column (20), remark 2	C		10.12.2020
Objective 1.3				
232 01.3-01	Methods for flushing (degassing)	D		10.12.2020
232 01.3-02	Methods for flushing (degassing)	D		10.12.2020
232 01.3-03	Methods for flushing (degassing)	C		10.12.2020
232 01.3-04	Methods for flushing (degassing)	A		10.12.2020
232 01.3-05	Flushing (degassing) at the same time as repairs	B		06.06.2011

Number	Source	Response	Remarks	Dealt with on
232 01.3-06	Flushing (degassing) in connection with repair work	C		06.06.2011
232 01.3-07	7.2.3.1.6	B		10.12.2020
232 01.3-08	Longitudinal flushing	C		10.12.2020
232 01.3-09			deleted (2007)	06.06.2011
Objective 2				
232 02.0-01			deleted (2010)	06.06.2011
232 02.0-02			deleted (2010)	06.06.2011
232 02.0-03	Flushing/rinsing of test tubes	D		06.06.2011
232 02.0-04	Flushing/rinsing of test tubes	A		06.06.2011
232 02.0-05	Sampling during longitudinal flushing	C		06.06.2011
232 02.0-06			deleted (2007)	06.06.2011
232 02.0-07	7.2.4.1.1 Storage of samples in test tubes	A		30.09.2014
232 02.0-08	Flushing of the cargo tanks	C		06.06.2011
232 02.0-09			deleted (2007)	06.06.2011
232 02.0-10	Taking of samples	B		06.06.2011
Objective 3				
232 03.0-01	Definition of explosive limit	A		06.06.2011
232 03.0-02	Definition of explosive limit	C		10.12.2020
232 03.0-03	Definition of explosive limit	D		06.06.2011
232 03.0-04	Definition of explosive limit	D		28.09.2016
232 03.0-05	Definition of explosive limit	A		06.06.2011
232 03.0-06	Critical dilution rate	B		20.09.2018
232 03.0-07	Critical dilution rate	C		30.09.2014
232 03.0-08	Risk of explosion	B		06.06.2011
232 03.0-09	Explosive limit and static electricity	D		20.09.2018
Objective 4				
232 04.0-01	Imminent hazards	A		06.06.2011
232 04.0-02	Delayed effect	B	Only in French and English	10.12.2020
232 04.0-03	Anaesthetizing effect	D		06.06.2011
232 04.0-04	Definition of the maximum workplace concentration	C		06.06.2011
232 04.0-05	Definition of the maximum workplace concentration	C		06.06.2011
232 04.0-06	Exceeding the maximum workplace concentration	B		06.06.2011
232 04.0-07	Maximum workplace concentration – odour threshold	A		06.06.2011
232 04.0-08			deleted (2007)	06.06.2011

Number	Source	Response	Remarks	Dealt with on
232 04.0-09	Asphyxiation	C		06.06.2011
Objective 5.1				
232 05.1-01	Measuring gas concentration	D		06.06.2011
232 05.1-02	Measuring gas concentration	A		06.06.2011
232 05.1-03	Measuring gas concentration	B		06.06.2011
232 05.1-04	Measuring gas concentration	C		06.06.2011
232 05.1-05	Measuring gas concentration	D		13.09.2012
232 05.1-06	Measuring gas concentration	A		06.06.2011
232 05.1-07	Measuring gas concentration	B		10.12.2020
232 05.1-08	Measuring gas concentration	C		10.12.2020
232 05.1-09	Measuring gas concentration	A		20.09.2018
232 05.1-10	Measuring gas concentration	D		10.12.2020
Objective 5.2				
232 05.2-01	Measuring gas concentration	A		10.12.2020
232 05.2-02	Measuring gas concentration	D		06.06.2011
232 05.2-03	Measuring gas concentration	A		10.12.2020
232 05.2-04	Measuring gas concentration	D		10.12.2020
232 05.2-05	Measuring gas concentration	A		10.12.2020
232 05.2-06	Measuring gas concentration	D		10.12.2020
232 05.2-07	Measuring gas concentration	A		10.12.2020
232 05.2-08	Measuring gas concentration	A		10.12.2020
232 05.2-09	Measuring gas concentration	B		10.12.2020
232 05.2-10			deleted (2007)	06.06.2011
Objective 6				
232 06.0-01	Measuring gas concentration	B		06.06.2011
232 06.0-02	Measuring gas concentration, 7.2.3.1.6	A		10.12.2020
232 06.0-03			deleted (2007)	06.06.2011
232 06.0-04	Measuring gas concentration	C		30.09.2014
232 06.0-05	Measuring gas concentration	A		20.09.2018
232 06.0-06	7.2.3.1.6	D		10.12.2020
232 06.0-07	Measuring gas concentration	D		10.12.2020
232 06.0-08	7.2.3.1.6	C		10.12.2020
232 06.0-09	Measuring gas concentration	C		10.12.2020
232 06.0-10			deleted (2016)	28.09.2016
Objective 7				
232 07.0-01	Measuring gas concentration	B		30.09.2014
232 07.0-02	Measuring gas concentration	B		10.12.2020
232 07.0-03	8.3.5	C		10.12.2020

Number	Source	Response	Remarks	Dealt with on
232 07.0-04	8.3.5	A		10.12.2020
232 07.0-05	8.3.5	D		10.12.2020
232 07.0-06	8.3.5	A		10.12.2020
232 07.0-07	7.2.3.1.6	A		20.09.2018
232 07.0-08	8.3.5	A		10.12.2020
232 07.0-09	8.3.5	C		10.12.2020
232 07.0-10	8.3.5	D		10.12.2020
Objective 8				
232 08.0-01	1.2.1	C		20.09.2018
232 08.0-02	Degree of filling	D		10.12.2020
232 08.0-03	Degree of filling	C		20.09.2018
232 08.0-04	Degree of filling	A		10.12.2020
232 08.0-05	Degree of filling	B		10.12.2020
232 08.0-06	Degree of filling	A		10.12.2020
232 08.0-07	Overfilling	C		06.06.2011
232 08.0-08	9.3.1.21.1	D		28.09.2016
232 08.0-09	9.3.1.21.1	A		06.06.2011
232 08.0-10	Degree of filling	B		10.12.2020
232 08.0-11	7.2.4.16.16	B		20.09.2018
232 08.0-12	7.2.4.16.17	A		28.09.2016
232 08.0-13	7.2.4.16.17	C		28.09.2016
Objective 9				
232 09.0-01	Safety against bursts in the piping	A		13.09.2012
232 09.0-02	Safety against bursts in the piping	C		06.06.2011
232 09.0-03	Safety against bursts in the piping	D		06.06.2011
232 09.0-04	Safety against bursts in the piping	B		06.06.2011
232 09.0-05	Safety against bursts in the piping	A		10.12.2020
232 09.0-06	9.3.1.21.9	A		20.09.2018
232 09.0-07	7.2.2.21	B		20.09.2018
232 09.0-08	7.2.2.21	C		20.09.2018
232 09.0-09	Rapid closing system	C		10.12.2020
232 09.0-10	Rapid closing system	A		13.09.2012
232 09.0-11	9.3.1.21.11	D		28.09.2016
232 09.0-12	Treatment of the cargo, 9.3.1.24.1 (a)	B		10.12.2020
Objective 10				
232 10.0-01	Unloading of the cargo	C		06.06.2011
232 10.0-02	Unloading of the cargo	D		06.06.2011
232 10.0-03	Unloading of the cargo	A		06.06.2011
232 10.0-04	Deck pumps	B		06.06.2011
232 10.0-05	Compressors	C		06.06.2011

Number	Source	Response	Remarks	Dealt with on
232 10.0-06	Compressors	D		06.06.2011
232 10.0-07	Deck pumps	A		06.06.2011
232 10.0-08	Compressors	C		06.06.2011
232 10.0-09	Compressors	B		20.09.2018
Emergency measures				
Objective 1.1				
233 01.1-01	Liquefied gas on skin	B		10.12.2020
233 01.1-02	Liquefied gas on skin	A		10.12.2020
233 01.1-03	Liquefied gas on skin	C		10.12.2020
233 01.1-04	Liquefied gas on skin	D		10.12.2020
Objective 1.2				
233 01.2-01	Breathing in gas	C		10.12.2020
233 01.2-02	Breathing in gas	D		10.12.2020
233 01.2-03	Breathing in gas	A		10.12.2020
233 01.2-04	Breathing in gas	B		10.12.2020
233 01.2-05	Breathing in gas	B		10.12.2020
Objective 1.3				
233 01.3-01	Emergency assistance, general	A		10.12.2020
233 01.3-02	Emergency assistance, general	C		10.12.2020
233 01.3-03	Emergency assistance, general	C		10.12.2020
233 01.3-04	Emergency assistance, general	D		10.12.2020
Objective 2.1				
233 02.1-01	Leak in a connection	A		10.12.2020
233 02.1-02	Leak in a connection	B		10.12.2020
233 02.1-03	Leak in a connection	C		10.12.2020
Objective 2.2				
233 02.2-01	Fire in the engine room	C		10.12.2020
233 02.2-02	Fire in the engine room	A		10.12.2020
233 02.2-03	Fire in the engine room	C		10.12.2020

Number	Source	Response	Remarks	Dealt with on
Objective 2.3				
233 02.3-01	Hazards that might arise in the vicinity of the vessel	B		10.12.2020
233 02.3-02	Hazards that might arise in the vicinity of the vessel	A		10.12.2020
233 02.3-03	Hazards that might arise in the vicinity of the vessel	B		20.09.2018
233 02.3-04	Safety requirements, 7.2.4.16.17	A		30.09.2014
Objective 2.4				
233 02.4-01	Over-filling	A		10.12.2020
233 02.4-02	Over-filling	A		10.12.2020
233 02.4-03	Over-filling	D		10.12.2020
Objective 2.5				
233 02.5-01	Polymerization	C		10.12.2020
233 02.5-02	Polymerization	B		10.12.2020
233 02.5-03	Polymerization	D		10.12.2020
