


Physical hazards	Flammable gases, Category 1A	H220
	Gases under pressure : Liquefied gas	H280

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Health hazards	Acute toxicity (inhalation:gas) Category 1	H330
	Specific target organ toxicity – Repeated exposure, Category 2	H373
Environmental hazards	Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
	Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H220 - Extremely flammable gas.  
H280 - Contains gas under pressure; may explode if heated.  
H330 - Fatal if inhaled.  
H373 - May cause damage to organs through prolonged or repeated exposure.  
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

- Prevention

: P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.  
P284 - Wear respiratory protection.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.

- Response

: P314 - Get medical advice/attention if you feel unwell.  
P391 - Collect spillage.  
P320 - Specific treatment is urgent (see supplemental first aid instruction on this label).  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P310 - Immediately call a POISON CENTER or doctor.  
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
P381 - In case of leakage, eliminate all ignition sources.  
P381 - In case of leakage, eliminate all ignition sources.

- Storage

: P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P403 - Store in a well-ventilated place.  
P410+P403 - Protect from sunlight. Store in a well-ventilated place.

- Disposal considerations


: P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Contact with liquid may cause cold burns/frostbite.  
Not classified as PBT or vPvB.  
The substance/mixture has no endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.1. Substances

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Name	Product identifier	Composition [V-%]:	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Arsine	CAS-No.: 7784-42-1 EC-No.: 232-066-3 EC Index-No.: 033-006-00-7 REACH registration No: 01-2120048082-66	100	Flam. Gas 1A, H220 Press. Gas (Liq.), H280 Acute Tox. 1 (Inhalation:gas), H330 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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

### 3.2. Mixtures

Not established.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- Inhalation : Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Perform cardiopulmonary resuscitation if breathing stopped.
- Skin contact : In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.
- 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

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 : Shutting off the source of the gas is the preferred method of control.
- Unsuitable extinguishing media : Do not use water jet to extinguish.  
Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

- Specific hazards : Exposure to fire may cause containers to rupture/explode.
- Hazardous combustion products : Arsenic and its oxides.

### 5.3. Advice for firefighters

- Specific methods : Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems.  
If possible, stop flow of product.  
Use water spray or fog to knock down fire fumes if possible.  
Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur. Extinguish any other fire.  
Move containers away from the fire area if this can be done without risk.

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Special protective equipment for fire fighters
:
Wear gas tight chemically protective clothing in combination with self contained breathing apparatus.  
Standard EN 943-2: Protective clothing against liquid and gaseous chemicals, aerosols and solid particles. Gas-tight chemical protective suits for emergency teams.  
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.  
Try to stop release.  
Evacuate area.  
Eliminate ignition sources.  
Ensure adequate air ventilation.  
Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.  
Stay upwind.  
See section 8 of the SDS for more information on personal protective equipment

For emergency responders
:
Monitor concentration of released product.  
Consider the risk of potentially explosive atmospheres.  
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.

6.2. Environmental precautions


Try to stop release.

6.3. Methods and material for containment and cleaning up

Ventilate area.

6.4. Reference to other sections

See also sections 8 and 13.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Safe use of the product


- : Do not breathe gas.
- Avoid release of product into atmosphere.
- The product must be handled in accordance with good industrial hygiene and safety procedures.
- Only experienced and properly instructed persons should handle gases under pressure.
- Consider pressure relief device(s) in gas installations.
- Ensure the complete gas system was (or is regularly) checked for leaks before use.
- Do not smoke while handling product.
- Avoid exposure, obtain special instructions before use.
- Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
- Installation of a cross purge assembly between the container and the regulator is recommended.
- Avoid suck back of water, acid and alkalis.
- Assess the risk of potentially explosive atmospheres and the need for explosion-proof equipment.
- Purge air from system before introducing gas.
- Take precautionary measures against static discharge.
- Keep away from ignition sources (including static discharges).
- Consider the use of only non-sparking tools.
- Ensure equipment is adequately earthed.

Safe handling of the gas receptacle

- : Refer to supplier's container handling instructions.
- Do not allow backfeed into the container.
- Protect containers from physical damage; do not drag, roll, slide or drop.
- When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders.
- Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.
- If user experiences any difficulty operating valve discontinue use and contact supplier.
- Never attempt to repair or modify container valves or safety relief devices.
- Damaged valves should be reported immediately to the supplier.
- Keep container valve outlets clean and free from contaminants particularly oil and water.
- Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment.
- Close container valve after each use and when empty, even if still connected to equipment.
- Never attempt to transfer gases from one cylinder/container to another.
- Never use direct flame or electrical heating devices to raise the pressure of a container.
- Do not remove or deface labels provided by the supplier for the identification of the 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.
- Segregate from oxidant gases and other oxidants in store.
- All electrical equipment in the storage areas should be compatible with the risk of a potentially explosive atmosphere.

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7.3. Specific end use(s)


None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Arsine (7784-42-1)	
Austria - Occupational Exposure Limits	
Local name	Arsenwasserstoff
MAK (mg/m³)	0.2 mg/m³
MAK (OEL TWA) [ppm]	0.05 ppm
MAK (OEL STEL)	1 mg/m³
MAK (OEL STEL) [ppm]	0.25 ppm
Belgium - Occupational Exposure Limits	
Local name	Arsine # Arsine
OEL TWA	0.16 mg/m³
OEL TWA [ppm]	0.05 ppm
Bulgaria - Occupational Exposure Limits	
Local name	Арсеноводород (арсин)
OEL TWA	0.05 mg/m³
Croatia - Occupational Exposure Limits	
Local name	Arsin
GVI (OEL TWA) [1]	0.16 mg/m³
GVI (OEL TWA) [2]	0.05 ppm
Remark	F+, T+, N
Czech Republic - Occupational Exposure Limits	
Local name	Arsenovodík
PEL (OEL TWA)	0.1 mg/m³
PEL (OEL TWA) [ppm]	0.031 ppm
NPK-P (OEL C)	0.2 mg/m³
NPK-P (OEL C) [ppm]	0.063 ppm
Denmark - Occupational Exposure Limits	
Local name	Arsin (Arsenbrinte)
OEL TWA [1]	0.03 mg/m³
OEL TWA [2]	0.01 ppm

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<b>Estonia - Occupational Exposure Limits</b>			
Local name		Arseenhüdiid	
OEL TWA		0.05 mg/m³	
OEL TWA [ppm]		0.02 ppm	
<b>Finland - Occupational Exposure Limits</b>			
Local name		Arseenivety	
HTP (OEL TWA) [1]		0.01 mg/m³	
<b>France - Occupational Exposure Limits</b>			
Local name		Hydrogène arsénié (Arsine)	
VME (OEL TWA)		0.2 mg/m³	
VME (OEL TWA) [ppm]		0.05 ppm	
VLE (OEL C/STEL)		0.8 mg/m³	
VLE (OEL C/STEL) [ppm]		0.2 ppm	
Remark		Valeurs recommandées/admises	
<b>Germany - Occupational Exposure Limits (TRGS 900)</b>			
Local name		Arsin	
AGW (OEL TWA) [1]		0.016 mg/m³	
AGW (OEL TWA) [2]		0.005 ppm	
Remark		AGS	
<b>Greece - Occupational Exposure Limits</b>			
OEL TWA		0.2 mg/m³	
OEL TWA [ppm]		0.05 ppm	
<b>Hungary - Occupational Exposure Limits</b>			
Local name		ARZIN	
AK (OEL TWA)		0.2 mg/m³	
CK (OEL STEL)		0.8 mg/m³	
<b>Ireland - Occupational Exposure Limits</b>			
Local name		Arsine	
OEL TWA [1]		0.02 mg/m³	
OEL TWA [2]		0.005 ppm	
<b>Lithuania - Occupational Exposure Limits</b>			
Local name		Arsanas (arseno hidridas, arsinas)	
IPRV (OEL TWA)		0.05 mg/m³	
IPRV (OEL TWA) [ppm]		0.02 ppm	

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<b>Poland - Occupational Exposure Limits</b>	
Local name	Arsan
NDS (OEL TWA)	0.02 mg/m <sup>3</sup>
<b>Portugal - Occupational Exposure Limits</b>	
Local name	Arsina
OEL TWA [ppm]	0.05 ppm
<b>Romania - Occupational Exposure Limits</b>	
Local name	Hidrogen arseniat
OEL TWA	0.1 mg/m <sup>3</sup>
OEL TWA [ppm]	0.03 ppm
OEL STEL	0.3 mg/m <sup>3</sup>
OEL STEL [ppm]	0.09 ppm
<b>Slovenia - Occupational Exposure Limits</b>	
Local name	arzin
OEL TWA	0.2 mg/m <sup>3</sup>
OEL TWA [ppm]	0.05 ppm
OEL STEL	0.8 mg/m <sup>3</sup>
OEL STEL [ppm]	0.2 ppm
<b>Spain - Occupational Exposure Limits</b>	
Local name	Hidruro de arsénico (Arsenamina)
VLA-ED (OEL TWA) [1]	0.16 mg/m <sup>3</sup>
VLA-ED (OEL TWA) [2]	0.05 ppm
Remark	r (Esta sustancia tiene establecidas restricciones a la fabricación, la comercialización o el uso en los términos especificados en el "Reglamento (CE) nº 1907/2006 sobre Registro, Evaluación, Autorización y Restricción de sustancias y preparados químicos" (REACH) de 18 de diciembre de 2006 (DOUE L 369 de 30 de diciembre de 2006). Las restricciones de una sustancia pueden aplicarse a todos los usos o sólo a usos concretos. El anexo XVII del Reglamento REACH contiene la lista de todas las sustancias restringidas y especifica los usos que se han restringido).
<b>Sweden - Occupational Exposure Limits</b>	
Local name	Arseniktrihydrid
NGV (OEL TWA)	0.05 mg/m <sup>3</sup>
NGV (OEL TWA) [ppm]	0.02 ppm
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Arsine
WEL TWA (OEL TWA) [1]	0.16 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	0.05 ppm




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<b>Norway - Occupational Exposure Limits</b>	
Local name	Arsenhydrid
Grenseverdi (OEL TWA) [1]	0.01 mg/m³
Grenseverdi (OEL TWA) [2]	0.003 ppm
<b>Switzerland - Occupational Exposure Limits</b>	
Local name	Arsenwasserstoff
MAK (OEL TWA) [1]	0.16 mg/m³
MAK (OEL TWA) [2]	0.05 ppm
Remark	HSE, NIOSH
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Arsine
ACGIH OEL TWA [ppm]	0.01 ppm
Remark (ACGIH)	PNS & vascular system impair

<b>Arsine (7784-42-1)</b>	
<b>Austria - Occupational Exposure Limits</b>	
Local name	Arsenwasserstoff
MAK (mg/m³)	0.2 mg/m³
MAK (OEL TWA) [ppm]	0.05 ppm
MAK (OEL STEL)	1 mg/m³
MAK (OEL STEL) [ppm]	0.25 ppm
<b>Belgium - Occupational Exposure Limits</b>	
Local name	Arsine # Arsine
OEL TWA	0.16 mg/m³
OEL TWA [ppm]	0.05 ppm
<b>Bulgaria - Occupational Exposure Limits</b>	
Local name	Арсеноводород (арсин)
OEL TWA	0.05 mg/m³
<b>Croatia - Occupational Exposure Limits</b>	
Local name	Arsin
GVI (OEL TWA) [1]	0.16 mg/m³
GVI (OEL TWA) [2]	0.05 ppm
Remark	F+, T+, N
<b>Czech Republic - Occupational Exposure Limits</b>	
Local name	Arsenovodík
PEL (OEL TWA)	0.1 mg/m³

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PEL (OEL TWA) [ppm]		0.031 ppm	
NPK-P (OEL C)		0.2 mg/m³	
NPK-P (OEL C) [ppm]		0.063 ppm	
<b>Denmark - Occupational Exposure Limits</b>			
Local name		Arsin (Arsenbrinte)	
OEL TWA [1]		0.03 mg/m³	
OEL TWA [2]		0.01 ppm	
<b>Estonia - Occupational Exposure Limits</b>			
Local name		Arseenhüdiid	
OEL TWA		0.05 mg/m³	
OEL TWA [ppm]		0.02 ppm	
<b>Finland - Occupational Exposure Limits</b>			
Local name		Arseenivety	
HTP (OEL TWA) [1]		0.01 mg/m³	
<b>France - Occupational Exposure Limits</b>			
Local name		Hydrogène arsénié (Arsine)	
VME (OEL TWA)		0.2 mg/m³	
VME (OEL TWA) [ppm]		0.05 ppm	
VLE (OEL C/STEL)		0.8 mg/m³	
VLE (OEL C/STEL) [ppm]		0.2 ppm	
Remark		Valeurs recommandées/admises	
<b>Germany - Occupational Exposure Limits (TRGS 900)</b>			
Local name		Arsin	
AGW (OEL TWA) [1]		0.016 mg/m³	
AGW (OEL TWA) [2]		0.005 ppm	
Remark		AGS	
<b>Greece - Occupational Exposure Limits</b>			
OEL TWA		0.2 mg/m³	
OEL TWA [ppm]		0.05 ppm	
<b>Hungary - Occupational Exposure Limits</b>			
Local name		ARZIN	
AK (OEL TWA)		0.2 mg/m³	
CK (OEL STEL)		0.8 mg/m³	
<b>Ireland - Occupational Exposure Limits</b>			
Local name		Arsine	

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OEL TWA [1]	0.02 mg/m³
OEL TWA [2]	0.005 ppm
<b>Lithuania - Occupational Exposure Limits</b>	
Local name	Arsanas (arseno hidridas, arsinas)
IPRV (OEL TWA)	0.05 mg/m³
IPRV (OEL TWA) [ppm]	0.02 ppm
<b>Poland - Occupational Exposure Limits</b>	
Local name	Arsan
NDS (OEL TWA)	0.02 mg/m³
<b>Portugal - Occupational Exposure Limits</b>	
Local name	Arsina
OEL TWA [ppm]	0.05 ppm
<b>Romania - Occupational Exposure Limits</b>	
Local name	Hidrogen arseniat
OEL TWA	0.1 mg/m³
OEL TWA [ppm]	0.03 ppm
OEL STEL	0.3 mg/m³
OEL STEL [ppm]	0.09 ppm
<b>Slovenia - Occupational Exposure Limits</b>	
Local name	arzin
OEL TWA	0.2 mg/m³
OEL TWA [ppm]	0.05 ppm
OEL STEL	0.8 mg/m³
OEL STEL [ppm]	0.2 ppm
<b>Spain - Occupational Exposure Limits</b>	
Local name	Hidruro de arsénico (Arsenamina)
VLA-ED (OEL TWA) [1]	0.16 mg/m³
VLA-ED (OEL TWA) [2]	0.05 ppm
Remark	r (Esta sustancia tiene establecidas restricciones a la fabricación, la comercialización o el uso en los términos especificados en el "Reglamento (CE) nº 1907/2006 sobre Registro, Evaluación, Autorización y Restricción de sustancias y preparados químicos" (REACH) de 18 de diciembre de 2006 (DOUE L 369 de 30 de diciembre de 2006). Las restricciones de una sustancia pueden aplicarse a todos los usos o sólo a usos concretos. El anexo XVII del Reglamento REACH contiene la lista de todas las sustancias restringidas y especifica los usos que se han restringido).
<b>Sweden - Occupational Exposure Limits</b>	
Local name	Arseniktrihydrid

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NGV (OEL TWA)	0.05 mg/m³
NGV (OEL TWA) [ppm]	0.02 ppm
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Arsine
WEL TWA (OEL TWA) [1]	0.16 mg/m³
WEL TWA (OEL TWA) [2]	0.05 ppm
<b>Norway - Occupational Exposure Limits</b>	
Local name	Arsenhydrid
Grenseverdi (OEL TWA) [1]	0.01 mg/m³
Grenseverdi (OEL TWA) [2]	0.003 ppm
<b>Switzerland - Occupational Exposure Limits</b>	
Local name	Arsenwasserstoff
MAK (OEL TWA) [1]	0.16 mg/m³
MAK (OEL TWA) [2]	0.05 ppm
Remark	HSE, NIOSH
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Arsine
ACGIH OEL TWA [ppm]	0.01 ppm
Remark (ACGIH)	PNS & vascular system impair

DNEL (Derived-No Effect Level) : None established.

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 regularly 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.


• Eye/face protection

: Wear goggles when transfilling or breaking transfer connections.  
Standard EN 166 - Personal eye-protection - specifications.

• Skin protection

- Hand protection

: Wear working gloves when handling gas containers.  
Standard EN 388 - Protective gloves against mechanical risk, performance level 1 or higher.  
Wear cold insulating gloves when transfilling or breaking transfer connections.  
Standard EN 511 - Cold insulating gloves.

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- Other : Consider the use of flame resistant anti-static safety clothing.  
Standard EN ISO 14116 - Limited flame spread materials.  
Standard EN 1149-5 - Protective clothing: Electrostatic properties.  
Wear safety shoes while handling containers.  
Standard EN ISO 20345 - Personal protective equipment - Safety footwear.
- Respiratory protection : Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask.  
Consult respiratory device supplier's product information for the selection of the appropriate device.  
Keep self contained breathing apparatus readily available for emergency use.  
Self contained breathing apparatus is recommended, where unknown exposure may be expected, e.g. during maintenance activities on installation systems.
- Thermal hazards : None in addition to the above sections.

### 8.2.3. Environmental exposure controls

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	: Colourless.
Odour	: Odourless. Odour threshold is subjective and inadequate to warn of overexposure.
pH	: Not applicable for gases and gas mixtures.
Melting point / Freezing point	: -117 °C -117 °C
Boiling point	: -62.5 °C
Flash point	: Not applicable for gases and gas mixtures.
Flammability	: Extremely flammable gas
Explosive limits	: 3.9 – 77.8 vol %
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Vapour pressure [20°C]	: 15 bar(a)
Vapour pressure [50°C]	: 27.5 bar(a)
Density	: Not applicable
Vapour density	: Not applicable for gases and gas mixtures.
Relative density, liquid (water=1)	: 1.6
Relative density, gas (air=1)	: 2.7
Water solubility	: 778 mg/l
Partition coefficient n-octanol/water (Log Kow)	: Not applicable for inorganic products.
Auto-ignition temperature	: 285 °C
Decomposition temperature	: Not applicable.
Viscosity, kinematic	: Not applicable for gases and gas mixtures.
Particle characteristics	: Not applicable for gases and gas mixtures.


### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

Oxidising properties	: No oxidising properties.
Tci	: 3.9 %
Critical temperature [°C]	: 100 °C

#### 9.2.2. Other safety characteristics

Molar mass	: 78 g/mol
Gas group	: Press. Gas (Liq.)

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Other data : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

**SECTION 10: Stability and reactivity**

<b>10.1. Reactivity</b>	No reactivity hazard other than the effects described in sub-sections below.
<b>10.2. Chemical stability</b>	Stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	None.
Reactivity	: This mixture contains components with the following reactivity : Can form explosive mixture with air. May react violently with oxidants.
<b>10.4. Conditions to avoid</b>	None under recommended storage and handling conditions (see section 7). Avoid moisture in installation systems.
<b>10.5. Incompatible materials</b>	For additional information on compatibility refer to ISO 11114.
<b>10.6. Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information**

<b>11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008</b>	
Acute toxicity	: Fatal if inhaled.
LC50 Inhalation - Rat [ppm]	10 ppm/4h
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LC50 Inhalation - Rat [ppm]	10 ppm/4h
Skin corrosion/irritation	: No known effects from this product.
Serious eye damage/irritation	: No known effects from this product.
Respiratory or skin sensitisation	: No known effects from this product.
Germ cell mutagenicity	: No known effects from this product.
Carcinogenicity	: No known effects from this product.
Toxic for reproduction : Fertility	: No known effects from this product.
Toxic for reproduction : unborn child	: No known effects from this product.
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.
<b>11.2. Information on other hazards</b>	
Other information	: The substance/mixture has no endocrine disrupting properties.

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## SECTION 12: Ecological information

### 12.1. Toxicity

Assessment	: Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
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 data available.
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### 12.3. Bioaccumulative potential

Assessment	: No data available.
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### 12.4. Mobility in soil

Assessment	: Because of its high volatility, the product is unlikely to cause ground or water pollution. Partition into soil is unlikely.
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### 12.5. Results of PBT and vPvB assessment

Assessment	: Not classified as PBT or vPvB.
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### 12.6. Endocrine disrupting properties

The substance/mixture has no endocrine disrupting properties.

### 12.7. Other adverse effects

Other adverse effects	: No known effects from this product.
Effect on the ozone layer	: No effect on the ozone layer.
Effect on global warming	: No known effects from this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Contact supplier if guidance is required.  
Do not discharge into areas where there is a risk of forming an explosive mixture with air.  
Waste gas should be flared through a suitable burner with flash back arrestor.  
Must not be discharged to atmosphere.  
Ensure that the emission levels from local regulations or operating permits are not exceeded.  
Refer to the EIGA code of practice Doc.30 "Disposal of Gases", downloadable at <http://www.eiga.org> for more guidance on suitable disposal methods.  
Return unused product in original container to supplier.

List of hazardous waste codes (from Commission Decision 2000/532/EC as amended) : 16 05 04 \*: Gases in pressure containers (including halons) containing hazardous substances.


### 13.2. Additional information

External treatment and disposal of waste should comply with applicable local and/or national regulations.

## SECTION 14: Transport information

### 14.1. UN number or ID number

In accordance with ADR / RID / IMDG / IATA / ADN	
UN-No.	: 2188

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**14.2. UN proper shipping name**

Transport by road/rail (ADR/RID) : ARSINE  
Transport by air (ICAO-TI / IATA-DGR) : Arsine  
Transport by sea (IMDG) : ARSINE

**14.3. Transport hazard class(es)**

**Labelling**



2.3 : Toxic gases.  
2.1 : Flammable gases.

**Transport by road/rail (ADR/RID)**

Class : 2  
Classification code : 2TF  
Tunnel Restriction : D - Passage forbidden through tunnels of category D and E

**Transport by sea (IMDG)**

Class / Div. (Sub. risk(s)) : 2.3 (2.1)  
Emergency Schedule (EmS) - Fire : F-D  
Emergency Schedule (EmS) - Spillage : S-U

**14.4. Packing group**

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

**14.5. Environmental hazards**

Transport by road/rail (ADR/RID) : Environmentally hazardous substance / mixture.  
Transport by air (ICAO-TI / IATA-DGR) : Environmentally hazardous substance / mixture.  
Transport by sea (IMDG) : Marine pollutant

**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 : Forbidden.  
    Cargo Aircraft only : Forbidden.  
Transport by sea (IMDG) : P200


**Special transport precautions**

: Avoid transport on vehicles where the load space is not separated from the driver's compartment.  
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.  
Before transporting product containers:  
- Ensure there is adequate ventilation.  
- Ensure that containers are firmly secured.  
- Ensure valve is closed and not leaking.  
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.  
- Ensure valve protection device (where provided) is correctly fitted.

**14.7. Maritime transport in bulk according to IMO instruments**

Not applicable.



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SECTION 15: Regulatory information

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

EU-Regulations

Restrictions on use : None.  
 Seveso Directive : 2012/18/EU (Seveso III) : Covered.

National regulations

Ensure all national/local regulations are observed.

France	
Occupational diseases	
Code	Description
RG 21	Professional poisoning by arsenic hydrogen

Germany

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV)  
 National Rules and Recommendations : [German regulations] BetriebssicherheitsV mit TRBSen insbesondere TRBS 3145 / TRGS 725 Ortsbewegliche Druckgasbehälter", TRBS 2141, BGR Regel 500 Teil 2.33: "Umgang mit Gasen", GefahrstoffV mit Technischen Regeln Gefährliche Stoffe TRGS insbesondere TRGS 407 "Tätigkeiten mit Gasen - Gefährdungsbeurteilung", TRGS 400, 500, 510, 900." BGR 104, TRBS 2152.

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed  
 SZW-lijst van mutagene stoffen : The substance is not listed  
 SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed  
 SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed  
 SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product  
 Pregnant/breastfeeding women working with the product must not be in direct contact with the product


15.2. Chemical safety assessment

A CSA does not need to be carried out for this product.

SECTION 16: Other information

Indication of changes : Safety data sheet in accordance with commission regulation (EU) No 2020/878.

Section	Changed item	Change	Comments
1.3	Company	Modified	Version 5.0. New address in Sweden. (This change only applies to the Swedish (SE) version of this SDS)

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

Full text of H- and EUH-statements	
Acute Tox. 1 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 1
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Flam. Gas 1A	Flammable gases, Category 1A
H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
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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