

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	:	Substance																																																																				
Trade name	:	Extinguishing agent cylinder under pressure																																																																				
Chemical name	:	Nitrogen																																																																				
EC-No.	:	231-783-9																																																																				
CAS-No.	:	7727-37-9																																																																				
Product code	:	A6V12463066																																																																				
Product group	:	Trade product																																																																				
Other means of identification	:	<table border="0"> <thead> <tr> <th>Product code</th> <th>Sales code</th> <th>Pressure</th> <th>Cylinder capacity</th> </tr> </thead> <tbody> <tr> <td>S54476-C620-A1</td> <td>CYF-2.7 200 N2</td> <td>200 bar</td> <td>2.7 L</td> </tr> <tr> <td>S54476-C620-A2</td> <td>CYF-10 200 N2</td> <td>200 bar</td> <td>10 L</td> </tr> <tr> <td>S54476-C680-A1</td> <td>CYF-80 200 N2</td> <td>200 bar</td> <td>80 L</td> </tr> <tr> <td>S54476-C680-A3</td> <td>CYF-20 300 N2</td> <td>300 bar</td> <td>20 L</td> </tr> <tr> <td>S54476-C680-A2</td> <td>CYF-80 300 N2</td> <td>300 bar</td> <td>80 L</td> </tr> <tr> <td>S54476-C640-A1</td> <td>CYF-140 300 N2</td> <td>300 bar</td> <td>140 L</td> </tr> <tr> <td>S54476-C690-A1</td> <td>CYFD-33 300 N2</td> <td>300 bar</td> <td>33L</td> </tr> <tr> <td>S54476-C690-A2</td> <td>CYFD-80 300 N2</td> <td>300 bar</td> <td>80L</td> </tr> <tr> <td>S54476-C690-A3</td> <td>CYFD-140 300 N2</td> <td>300 bar</td> <td>140L</td> </tr> <tr> <td>S54476-C187-A2</td> <td>GAS CYL.</td> <td>200 bar</td> <td>2.7L</td> </tr> <tr> <td>S54476-C3-C2</td> <td>GAS CYL.</td> <td>200 bar</td> <td>10L</td> </tr> <tr> <td>S54476-C1-C5</td> <td>GAS CYL.</td> <td>200 bar</td> <td>80L</td> </tr> <tr> <td>S54476-C271-A1</td> <td>GAS CYL.</td> <td>300 bar</td> <td>20L</td> </tr> <tr> <td>S54476-C1-C15</td> <td>GAS CYL</td> <td>300 bar</td> <td>80L</td> </tr> <tr> <td>S54476-C140-A1</td> <td>GAS CYL.</td> <td>300 bar</td> <td>140L</td> </tr> <tr> <td>S54476-C209-A1</td> <td>S54476-C209-A1</td> <td>42 bar</td> <td>7L</td> </tr> </tbody> </table>	Product code	Sales code	Pressure	Cylinder capacity	S54476-C620-A1	CYF-2.7 200 N2	200 bar	2.7 L	S54476-C620-A2	CYF-10 200 N2	200 bar	10 L	S54476-C680-A1	CYF-80 200 N2	200 bar	80 L	S54476-C680-A3	CYF-20 300 N2	300 bar	20 L	S54476-C680-A2	CYF-80 300 N2	300 bar	80 L	S54476-C640-A1	CYF-140 300 N2	300 bar	140 L	S54476-C690-A1	CYFD-33 300 N2	300 bar	33L	S54476-C690-A2	CYFD-80 300 N2	300 bar	80L	S54476-C690-A3	CYFD-140 300 N2	300 bar	140L	S54476-C187-A2	GAS CYL.	200 bar	2.7L	S54476-C3-C2	GAS CYL.	200 bar	10L	S54476-C1-C5	GAS CYL.	200 bar	80L	S54476-C271-A1	GAS CYL.	300 bar	20L	S54476-C1-C15	GAS CYL	300 bar	80L	S54476-C140-A1	GAS CYL.	300 bar	140L	S54476-C209-A1	S54476-C209-A1	42 bar	7L
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REACH authorisation exemptions	:	Exempted from REACH registration Listed in Annex IV/V of Regulation (EC) No 1907/2006 (REACH), exempted from registration.																																																																				
Reference number	:	A6V12463066																																																																				

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Use of the substance/mixture	:	- Pneumatic control - Extinguishing agent Reserved for professional users
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Uses advised against

Restrictions on use	:	Other consumer uses
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1.3. Details of the supplier of the safety data sheet

Siemens Schweiz AG
 Theilerstrasse 1a
 CH-6300 Zug
 +41 58 724 24 24
 fs.support.sbt@siemens.com

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1.4. Emergency telephone number

Emergency number : For the emergency telephone number for your own country, please contact the relevant local authorities and visit the ECHA (European Chemicals Agency) website:
http://echa.europa.eu/help/nationalhelp_contact_en.asp

Emergency contact (24/24) GBK / Infotrac ID 102973
International phone (001) 352 323 3500

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Gases under pressure : Compressed gas H280

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

Adverse physicochemical, human health and environmental effects

Contains gas under pressure; may explode if heated.

Other hazards which do not result in classification None.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS04

Signal word (CLP) : Warning

Hazard statements (CLP) : H280 - Contains gas under pressure; may explode if heated.

Precautionary statements (CLP) : P403 - Store in a well-ventilated place.

Extra phrases : EIGA-As: Asphyxiant in high concentrations.

2.3. Other hazards

Other hazards which do not result in classification : None.

Not classified in PBT.

Not classified in vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Nitrogen	CAS-No.: 7727-37-9 EC-No.: 231-783-9	100	Press. Gas (Comp.), H280

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

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Comments : The purity of the substance in this section is used for classification purposes only, and does not represent the actual purity of the substance as provided, for which further documentation needs to be consulted.

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Can cause asphyxia at high concentration. Symptoms may be loss of consciousness or motor control.
The victim may not realize the asphyxiation.
Wear isolating breathing apparatus and move the victim to an uncontaminated area.
Keep the victim warm and call a doctor.
Perform artificial respiration if breathing has stopped.

First-aid measures after inhalation : Can cause asphyxia at high concentration. Symptoms may be loss of consciousness or motor control.
The victim may not realize the asphyxiation.
Wear isolating breathing apparatus and move the victim to an uncontaminated area.
Keep the victim warm and call a doctor.
Perform artificial respiration if breathing has stopped.

First-aid measures after skin contact : Unexpected adverse reactions to this product.

First-aid measures after eye contact : Unexpected adverse reactions to this product.

First-aid measures after ingestion : Ingestion is not considered a possible mode of exposure.

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

Symptoms/effects : Respiratory arrest.

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

Hazards: None.

Processing: None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : This product does not burn. In case of fire in the vicinity: Use a suitable fire extinguisher agent.

Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : General Fire Hazards: Heat can cause containers to explode.

Hazardous decomposition products when fire : None.

5.3. Advice for firefighters

Firefighting instructions : In case of fire: Seal the leak if it can be done safely.
Continue to spray with water from a protected area until the container is cold.
Use extinguishing agents to contain the fire. Isolate the source of the fire or allow it to burn.

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Protection when fire	: Fire-fighters must wear standard protective equipment, including flame retardant clothing, face mask helmet, gloves, rubber boots and, in enclosed spaces, self-contained breathing apparatus. Guideline: EN 469:2005: Protective clothing for fire-fighters. Performance requirements for fire-fighting protective clothing. EN 15090: Shoes for fire-fighters. EN 659: Protective gloves for fire-fighters. EN 443: Helmets for fire fighting in buildings and other structures. EN 137: Respiratory protection devices - Independent open circuit compressed air breathing apparatus with full face mask - requirements, testing, marking.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Wear insulating breathing apparatus when entering the area, unless you have checked that the area is safe. GUIDELINE, EN 137: Respiratory protection devices - Independent open circuit compressed air breathing apparatus with full face mask - requirements, testing, marking.
Emergency procedures	: Evacuate the area. Ensure effective ventilation. Prevent discharge into sewers, basements, or anywhere where accumulation can be dangerous.

6.1.2. For emergency responders

Protective equipment	: Wear insulating breathing apparatus when entering the area, unless you have checked that the area is safe. GUIDELINE, EN 137: Respiratory protection devices - Independent open circuit compressed air breathing apparatus with full face mask - requirements, testing, marking.
Emergency procedures	: Evacuate the area. Ensure effective ventilation. Prevent discharge into sewers, basements, or anywhere where accumulation can be dangerous.

6.2. Environmental precautions

Contain leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Other information	: Ensure effective ventilation.
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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

Additional hazards when processing

: Safety when handling the gas container:

Refer to the supplier's instructions for handling the container.

Do not allow products to rise in the container.

Protect the bottles from physical damage, do not pull, roll, slide or drop them.

To move the bottles, even over a short distance, use a trolley (bottle roller, etc.), designed for transporting bottles.

Leave the valve protection cap in place until the container is secured again either by a wall or a bracket or placed in a container or put into position for use.

Never attempt to repair or modify a container valve or its pressure relief devices.

Damaged taps must be reported immediately to the supplier. Keep tap outlets of containers clean and uncontaminated, especially with oil or water.

If the container has been equipped with it, as soon as it has been disconnected from the plant, replace the valve outlet cap or plug.

Never attempt to transfer gases from one cylinder/container to another.

Never use a direct flame or electric heating to increase the pressure in the container.

Do not remove or damage the labels provided by the supplier to identify the contents of the bottle.

Prevent water from being sucked into the container.

Precautions for safe handling

: To avoid the risk of electrostatic discharge, the system must be properly earthed.

The product must be handled in accordance with good industrial hygiene and safety procedures.

Only persons with experience and appropriate training may handle gases under pressure.

Consider adding pressure relief valve(s) to the plant.

Make sure that the entire gas plant has been (or is regularly) checked for leaks before use.

Do not smoke while handling the product.

Use only the specified equipment, appropriate for this product, its pressure and temperature of use. Contact your gas supplier in case of doubt.

Avoid backflow of water, acids and alkalis. Do not inhale the gas. Avoid exposing the product to the air.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Observe all local regulations and requirements for the storage of containers.

Containers must not be stored under conditions that may aggravate corrosion.

Container valve guards or caps must be in place.

Containers must be stored in an upright position and secured to prevent them from falling out.

Containers in stock must be periodically checked for their general condition and the absence of leaks.

Store the container in a well-ventilated place at a temperature below 50°C.

Store containers in places not exposed to the risk of fire and away from sources of heat and ignition.

Keep away from combustible materials.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Nitrogen (7727-37-9)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Nitrogen
Remark (ACGIH)	TLV® Basis: Simple Asphyxiant
Regulatory reference	ACGIH 2022

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Apply a work permit system, for example for maintenance activities.

Ensure suitable air ventilation.

Ensure adequate ventilation, including suitable source vacuum ventilation to ensure that the occupational exposure limit is not exceeded.

Oxygen sensors should be used when asphyxiating gases can be released.

Pressurized systems should be tested regularly for leaks.

Preferably use permanent connections (e.g. welded pipes).

Do not eat, drink or smoke when using.

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8.2.2. Personal protection equipment

Personal protective equipment:

General information:

A risk evaluation must be held and documented in each working zone in order to evaluate the risks associated with using the product, and to choose the PPE which corresponds to these risks.

You must consider the following recommendations. Ensure access to autonomous breathing equipment, ready to use if necessary.

The choice of personal protection equipment for the body should be based on the task in question and the associated risks.

8.2.2.1. Eye and face protection

Eye protection:

Eye protection (according to EN 166) when using gas.

Guideline: EN 166 Personal eye protection.

8.2.2.2. Skin protection

Skin and body protection:

No special requirements.

Hand protection:

Wear handling gloves when handling packages.

Guideline: EN 388: gloves.

Other skin protection

Materials for protective clothing:

Wear safety shoes when handling packages.

Guideline: EN ISO 20345: Personal protective equipment - Safety footwear.

8.2.2.3. Respiratory protection

Respiratory protection:

Not required.

8.2.2.4. Thermal hazards

Thermal hazard protection:

No precautions are necessary.

8.2.3. Environmental exposure controls

Environmental exposure controls:

For waste disposal, see SDS section 13.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Gas
Colour	: Colourless.
Appearance	: Compressed gas.
Odour	: Odourless.

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Odour threshold	: The detection of thresholds by smell is subjective and inappropriate to alert in case of overexposure.
Melting point	: -210.01 °C
Freezing point	: Not applicable
Boiling point	: -196 °C
Flammability	: This product is not flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not applicable to gas and gas mixtures.
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not applicable
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: 0.171 mPa.s (10.9°C)
Solubility	: Water: 20 mg/l
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: 0.67
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not applicable
Relative density	: 0.8
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Critical temperature : -147 °C

9.2.2. Other safety characteristics

Other properties : Vapour pressure (air=1): 0.97, Molecular weight: 28.01 g/mol (N₂)

Additional information : Gas or vapour heavier than air. Can accumulate in confined areas, especially at or below ground level.

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SECTION 10: Stability and reactivity

10.1. Reactivity

No danger of reactivity other than the effects described in the sub-paragraphs below.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

No reaction with any common materials in dry or wet conditions.

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 (ORAL) : Not classified

ACUTE TOXICITY (DERMAL) : Not classified

ACUTE TOXICITY (INHALATION) : Not classified

ADDITIONAL INFORMATION : Based on the available data, the classification criteria are not met.

SKIN CORROSION/IRRITATION : Not classified

Additional information : Based on the available data, the classification criteria are not met.

SERIOUS EYE DAMAGE/IRRITATION : Not classified

Additional information : Based on the available data, the classification criteria are not met.

RESPIRATORY OR SKIN SENSITISATION : Not classified

Additional information : Based on the available data, the classification criteria are not met.

GERM CELL MUTAGENICITY : Not classified

Additional information : Based on the available data, the classification criteria are not met.

CARCINOGENICITY : Not classified

Additional information : Based on the available data, the classification criteria are not met.

REPRODUCTIVE TOXICITY : Not classified

Additional information : Based on the available data, the classification criteria are not met.

STOT-SINGLE EXPOSURE : Not classified

Additional information : Based on the available data, the classification criteria are not met.

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STOT-REPEATED EXPOSURE : Not classified

Additional information : Based on the available data, the classification criteria are not met.

ASPIRATION HAZARD : Not classified

Additional information : Not applicable to gases and gas mixtures.

INFORMATION ON THE LIKELY ROUTES OF EXPOSURE :

Dermal contact : No data available

Eyes contact : No data available

Inhalation : No data available

Ingestion : No data available

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2 Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Additional information : No environmental damage caused by this product.

12.2. Persistence and degradability

Nitrogen (7727-37-9)

Additional information	The substance arrives naturally.
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12.3. Bioaccumulative potential

Nitrogen (7727-37-9)

Partition coefficient n-octanol/water (Log Pow)	0.67
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Additional information	The product is assumed to be biodegradable; its persistence in aquatic environments is expected to be low.
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12.4. Mobility in soil

Nitrogen (7727-37-9)

Additional information	Not applicable, the substance is a gas.
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12.5. Results of PBT and vPvB assessment

Nitrogen (7727-37-9)
Not classified in PBT.
Not classified in vPvB.

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : No environmental damage caused by this product.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not release in any place where its accumulation could be dangerous. Discharge to the atmosphere and in a well ventilated place.

Additional information : Disposal methods:
Refer to the EIGA Code of Practice (Doc. 30 "Gas Layout", downloadable at <http://www.eiga.org>) for more advice on appropriate methods of use.
Have the cylinder collected up by the supplier only.
Release, treatment and disposal may be subject to national, regional or local laws.

European List of Waste (LoW) code : Container:
16 05 05: Gases in pressure receptacles other than those mentioned in 16 05 04.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : UN 1066
UN-No. (IMDG) : UN 1066
UN-No. (IATA) : UN 1066
UN-No. (ADN) : UN 1066
UN-No. (RID) : UN 1066

14.2. UN proper shipping name

Proper Shipping Name (ADR) : NITROGEN, COMPRESSED
Proper Shipping Name (IMDG) : NITROGEN, COMPRESSED
Proper Shipping Name (IATA) : NITROGEN, COMPRESSED
Proper Shipping Name (ADN) : NITROGEN, COMPRESSED
Proper Shipping Name (RID) : NITROGEN, COMPRESSED
Transport document description (ADR) : UN 1066 NITROGEN, COMPRESSED, 2.2, (E)
Transport document description (IMDG) : UN 1066 NITROGEN, COMPRESSED, 2.2
Transport document description (IATA) : UN 1066 NITROGEN, COMPRESSED, 2.2

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Transport document description (ADN) : UN 1066 NITROGEN, COMPRESSED, 2.2

Transport document description (RID) : UN 1066 NITROGEN, COMPRESSED, 2.2

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 2.2

Danger labels (ADR) : 2.2

:



IMDG

Transport hazard class(es) (IMDG) : 2.2

Danger labels (IMDG) : 2.2

:



IATA

Transport hazard class(es) (IATA) : 2.2

Danger labels (IATA) : 2.2

:



ADN

Transport hazard class(es) (ADN) : 2.2

Danger labels (ADN) : 2.2

:



RID

Transport hazard class(es) (RID) : 2.2

Danger labels (RID) : 2.2

:



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14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Special transport precautions	: Transport exclusively in vehicles where the transport compartment is separate from the driver's cab. Ensure that the driver of the vehicle is aware of the potential hazards of the load and what to do in the event of an accident. Before transporting containers make sure they are firmly secured. Make sure the cylinder valve is closed and not leaking. Guards or caps should be in place on the packages. Ensure proper air ventilation.
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Overland transport

Special provisions (ADR)	: 378, 653, 660, 662
Classification code (ADR)	: 1A
Tunnel restriction code (ADR)	: E

Transport by sea

Special provisions (IMDG)	: 378
EmS-No. (Fire)	: F-C
EmS-No. (Spillage)	: S-V

Air transport

Special provisions (IATA)	: A69, A202
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Inland waterway transport

Special provisions (ADN)	: 378, 653, 662
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Rail transport

Special provisions (RID)	: 378, 653, 660, 662
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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

15.1.1. EU-Regulations

- Extinguishing agent cylinder under pressure is not on the REACH Candidate List
- Extinguishing agent cylinder under pressure is not on the REACH Annex XIV List
- Extinguishing agent cylinder under pressure is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Extinguishing agent cylinder under pressure

Safety Data Sheet

according to the Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

- Extinguishing agent cylinder under pressure is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers. Directive 89/686/EEC on personal protective equipment. Only products complying with food regulations (EC) 1333/2008 and (EU) 231/2012 and labelled as such may be used as food additives.

15.2. Chemical safety assessment

No chemical safety assessment has been performed.

SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
	Issue date	Modified	

Abbreviations and acronyms:	
CAS-No.	Chemical Abstract Service number
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
LC50	Median lethal concentration
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
VOC	Volatile Organic Compounds
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
ThOD	Theoretical oxygen demand (ThOD)
EN	European Standard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
SDS	Safety Data Sheet
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
N.O.S.	Not Otherwise Specified
EC-No.	European Community number
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration

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OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
R&Ds	"Scientific Research and Development": any scientific experimentation, analysis or chemical research activity carried out in controlled conditions and on quantities of less than 1 tonne per year.
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT	Specific target organ toxicity
STP	Sewage treatment plant
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
BLV	Biological limit value
OEL	Occupational Exposure Limit
IOELV	Indicative Occupational Exposure Limit Value
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

- Data sources : A variety of data sources have been used in compiling this SDS, but they are not exclusive:
Agency for Toxic Substances and Disease Registration (ATSDR) (<http://www.atsdr.cdc.gov/>).
European Chemicals Agency: Guidance on compiling Safety Data Sheets.
European Chemicals Agency: Information on Registered Substances <http://apps.echa.europa.eu/registered/register-ed-sub.aspx#search>
European Industrial Gases Association (EIGA) Doc 169/11 Classification, Labelling.
International Chemical Safety Program (<http://www.inchem.org/>)
ISO 10156:2010 gases and gas mixtures -- Determination of flammability and oxidation potential for the selection of valve outlet connections.
Matheson Gas Data Book, 7th Edition.
National Institute for Standards and Technology (NIST) Standard referring to database number 69.
ESIS (European Chemicals 5 Information System) Platform of the former European Chemicals Bureau (ECB) ESIS (<http://ecb.jrc.ec.europa.eu/esis/>).
European Chemical Industry Council (CEFIC)
TOXNET, the Toxicology Data Network of the National Library of the United States of America (<http://toxnet.nlm.nih.gov/index.html>).
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit values (TLV).
Substance specific supplier information.
The information in this document is considered accurate at the time of printing.
- Training advice : Users of breathing apparatus must be trained. The risks of asphyxia are often underestimated and should be emphasized during operator training. Make sure that operators understand the risks.
- Other information : A compatibility and safety study must be performed before using this product for a new process. Ensure suitable air ventilation. Make sure that all national or local regulations are followed. Despite the care taken in its drafting, no liability can be accepted in case of damage or accident resulting from its use. This SDS was prepared by EDITIONS T.I. - Service QuickFDS Consulting.

Full text of H- and EUH-statements:	
H280	Contains gas under pressure; may explode if heated.
Press. Gas (Comp.)	Gases under pressure : Compressed gas

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.