

# SAFETY DATA SHEET

Based upon Regulation (EC) No. 1907/2006, as amended by Regulation (EC) No. 453/2010

# sulfur hexafluoride

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

## 1.1 Product identifier:

: sulfur hexafluoride Product name

Synonyms : accudri Sf6; elegas; esaflon; sulfur fluoride (SF6), (OC-6-11)-; sulfur(VI) fluoride; sulphur hexafluoride

Registration number REACH : 01-2119458769-17

Product type REACH : Substance/mono-constituent

CAS number : 2551-62-4 FC number : 219-854-2 RTECS number : WS4900000 Molecular mass : 146.05 g/mol Formula : SF6

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

## 1.2.1 Relevant identified uses

Insulant: electromagnetics Fire-retarding agent

# 1.2.2 Uses advised against

No uses advised against

# 1.3 Details of the supplier of the safety data sheet:

# Supplier of the safety data sheet

**BALCHEM NV** Westvaartdijk 85 B-1850 Grimbergen Belgium **\*\*\*\*** +32 2 251 60 87 +32 2 252 17 51 info.grimbergen@balchem.com

**Distributor of the product BALCHEM NV** 

Westvaartdijk 85 B-1850 Grimbergen Belgium **🕾 +32 2 251 60 87** 

info.grimbergen@balchem.com

# 1.4 Emergency telephone number:

24h/24h (Telephone advice: English, French, German, Dutch): +32 14 58 45 45 (BIG)

# SECTION 2: Hazards identification

# 2.1 Classification of the substance or mixture:

# 2.1.1 Classification according to Regulation EC No 1272/2008

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Press. Gas	Liquefied gas	H280: Contains gas under pressure; may explode if heated.

# 2.1.2 Classification according to Directive 67/548/EEC-1999/45/EC

Not classified as dangerous according to the criteria of Directive(s) 67/548/EEC and/or 1999/45/EC

# 2.2 Label elements:

# Labelling according to Regulation EC No 1272/2008 (CLP)



Signal word H-statements Warning

Contains gas under pressure; may explode if heated.

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)

Technische Schoolstraat 43 A, B-2440 Geel http://www.big.be

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Revision number: 0100

Publication date: 2011-11-05 Date of revision: 2014-10-24 Reference number: 3700

Product number: 10642

1/10

#### P-statements

P410 + P403

Protect from sunlight. Store in a well-ventilated place.

#### 2.3 Other hazards:

CLP

Heat may cause pressure rise in tanks/drums: explosion risk

May cause frostbites

Large spills/in enclosed spaces: risk of oxygen deficiency

Included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006)

# SECTION 3: Composition/information on ingredients

## 3.1 Substances:

	CAS No EC No	Conc (C)	Classification according to DSD/DPD	Classification according to CLP	Note	Remark
L . "	2551-62-4 219-854-2	C>99 %		Press. Gas - Liquefied gas; H280	(1)(2)	Mono-constituent

- (1) For R-phrases and H-statements in full: see heading 16
- (2) Substance with a Community workplace exposure limit

## 3.2 Mixtures:

Not applicable

# **SECTION 4: First aid measures**

# 4.1 Description of first aid measures:

#### General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

#### After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

## After skin contact:

Rinse with water. Take victim to a doctor if irritation persists. In case of frostbites: Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

## After eye contact:

Rinse immediately with plenty of water for 15 minutes. Cover eyes aseptically. Take victim to an ophthalmologist.

## After ingestion:

Not applicable.

# 4.2 Most important symptoms and effects, both acute and delayed:

## 4.2.1 Acute symptoms

# After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Feeling of weakness. Headache. Dizziness. Excited/restless. Coordination disorders. Disturbed motor response. Nausea. Vomiting. Disturbances of consciousness. Accelerated heart action. Respiratory difficulties. Rapid respiration. ON HEATING: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Risk of lung oedema.

# After skin contact:

Frostbites.

# After eye contact:

Frostbites.

After ingestion:

4.2.2 Delayed symptoms

No effects known.

# 4.3 Indication of any immediate medical attention and special treatment needed:

If applicable and available it will be listed below.

# SECTION 5: Firefighting measures

# 5.1 Extinguishing media:

Reason for revision: ATP4

# 5.1.1 Suitable extinguishing media:

Adapt extinguishing media to the environment.

# 5.1.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known.

Publication date: 2011-11-05
Date of revision: 2014-10-24
Reference number: 3700

Revision number: 0100 Product number: 10642 2 / 10

# 5.2 Special hazards arising from the substance or mixture:

On burning: release of toxic and corrosive gases/vapours (sulphur oxides, hydrofluoric acid).

## 5.3 Advice for firefighters:

#### 5.3.1 Instructions:

Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: cool from behind cover. Do not move the load if exposed to heat. After cooling: persistant risk of physical explosion. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.

# 5.3.2 Special protective equipment for fire-fighters:

Insulating gloves. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. Heat/fire exposure: compressed air/oxygen apparatus.

# SECTION 6: Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures:

Keep upwind. Seal off low-lying areas. Close doors and windows of adjacent premises. No naked flames. Carry out specific temperature controls. Large spills/in confined spaces: consider evacuation.

#### 6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

# 6.1.2 Protective equipment for emergency responders

Insulating gloves. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.

Suitable protective clothing

See heading 8.2

# **6.2 Environmental precautions:**

Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Tip the container on one side to stop the leakage.

# 6.3 Methods and material for containment and cleaning up:

Damaged/cooled tanks must be emptied. Wash clothing and equipment after handling.

## **6.4 Reference to other sections:**

See heading 13.

# SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

# 7.1 Precautions for safe handling:

Keep away from naked flames/heat. Gas/vapour heavier than air at 20°C. Observe normal hygiene standards.

# 7.2 Conditions for safe storage, including any incompatibilities:

## 7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Store in a cool area. Keep only in the original container. Keep out of direct sunlight. Ventilation at floor level. Fireproof storeroom. Meet the legal requirements.

# 7.2.2 Keep away from:

Heat sources.

# 7.2.3 Suitable packaging material:

Steel, stainless steel, monel steel, aluminium.

# 7.2.4 Non suitable packaging material:

Carbon steel, copper.

# 7.3 Specific end use(s):

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

# SECTION 8: Exposure controls/personal protection

# 8.1 Control parameters:

# 8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

# The Netherlands

Time-weighted average exposure limit 8 h /Private 6000 mg/m <sup>3</sup>	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	988 ppm	
Time weighted average exposure limit on it invaled 10000 mg/m	Time-weighted average exposure limit 8 h (Private	6000 mg/m³	
occupational exposure limit value)	occupational exposure limit value)		

# Belgium

Soufre (hexafluorure de)	Time-weighted average exposure limit 8 h	1000 ppm	
	Time-weighted average exposure limit 8 h	6057 mg/m³	

Reason for revision: ATP4 Publication date: 2011-11-05 Date of revision: 2014-10-24

Reference number: 3700 Product number: 10642

Revision number: 0100 3/10

# **USA (TLV-ACGIH)**

Sulfur hexafluoride	Time-weighted average exposure limit 8 h (TLV -	1000 ppm	
	Adopted Value)		

#### Germany

Schwefelhexafluorid	Time-weighted average exposure limit 8 h (TRGS	1000 ppm	
	900)		
	Time-weighted average exposure limit 8 h (TRGS	6100 mg/m³	
	900)		

#### France

Soufre (hexafluorure de)	e) Time-weighted average exposure limit 8 h (VL: 10		
	Valeur non réglementaire indicative)		
	Time-weighted average exposure limit 8 h (VL:	6000 mg/m <sup>3</sup>	
	Valeur non réglementaire indicative)		

#### UK

Sulphur hexafluoride	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1000 ppm	
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	6070 mg/m³	
	Short time value (Workplace exposure limit (EH40/2005))	1250 ppm	
	Short time value (Workplace exposure limit (EH40/2005))	7590 mg/m³	

## b) National biological limit values

If limit values are applicable and available these will be listed below.

# 8.1.2 Sampling methods

Product name	Test	Number
Sulfur Hexafluoride	NIOSH	6602

## 8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

#### 8.1.4 DNEL/PNEC values

# **DNEL - Workers**

# sulfur hexafluoride

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Long-term systemic effects inhalation	2535 mg/m <sup>3</sup>	
	Long-term local effects inhalation	2535 mg/m <sup>3</sup>	

# **DNEL - General population**

## sulfur hexafluoride

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Long-term systemic effects inhalation	631 mg/m³	
	Long-term local effects inhalation	631 mg/m³	

# PNEC

# sulfur hexafluoride

Compartments	Value	Remark
Fresh water	0.15 mg/l	
Agua (intermittent releases)	1.5 mg/l	

# 8.1.5 Control banding

If applicable and available it will be listed below.

# 8.2 Exposure controls:

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

## 8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

# 8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Do not eat, drink or smoke during work.

# a) Respiratory protection:

Wear gas mask with filter type B if conc. in air > exposure limit.

# b) Hand protection:

Insulated gloves.

- materials (good resistance)

 $Butyl\ rubber,\ chloroprene\ rubber,\ neoprene,\ polyethylene,\ PVC,\ tetrafluoroethylene.$ 

- materials (poor resistance)

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Date of revision: 2014-10-24

Reference number: 3700

Revision number: 0100 Product number: 10642 4 / 10

c) Eye protection:

Safety glasses.

d) Skin protection:

Protective clothing.

## 8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

# SECTION 9: Physical and chemical properties

# 9.1 Information on basic physical and chemical properties:

Physical form	Liquefied gas				
Odour	Odourless				
Odour threshold	No data available				
Colour	Colourless				
Particle size	Not applicable (gas)				
Explosion limits	No data available				
Flammability	Non combustible				
Log Kow	1.64 ; Calculated ; EPIWIN ; 20 °C				
Dynamic viscosity	0.01576 mPa.s ; 25 °C				
Kinematic viscosity	0.008383 mm²/s ; 25 °C				
Melting point	-50.8 ℃				
Boiling point	No data available				
Flash point	No data available				
Evaporation rate	No data available				
Relative vapour density	No data available				
Vapour pressure	23670 hPa ; 25 °C				
Solubility	water ; 0.031 g/l ; 25 °C				
	ethanol ; soluble				
	ether ; soluble				
	potassium hydroxide ; soluble				
	oils/fats ; soluble				
Relative density	1.88 ; -50 °C				
Decomposition temperature	800 °C				
Auto-ignition temperature	No data available				
Explosive properties	No chemical group associated with explosive properties				
Oxidising properties	No chemical group associated with oxidising properties				
рН	7 ; 0.031 g/l ; 25 °C				

# 9.2 Other information:

Critical temperature	46 °C
Critical pressure	37590 hPa
Surface tension	0.012 N/m ; -50 °C
Absolute density	1910 kg/m³; -50 °C
Sublimation temperature	-64 °C

# SECTION 10: Stability and reactivity

# 10.1 Reactivity:

Substance has neutral reaction.

# 10.2 Chemical stability:

Stable under normal conditions.

# 10.3 Possibility of hazardous reactions:

No data available.

# 10.4 Conditions to avoid:

Keep away from naked flames/heat.

# 10.5 Incompatible materials:

No data available.

# 10.6 Hazardous decomposition products:

On burning: release of toxic and corrosive gases/vapours (sulphur oxides, hydrofluoric acid).

# SECTION 11: Toxicological information

# 11.1 Information on toxicological effects:

11.1.1 Test results

# Acute toxicity

Revision number: 0100

Reason for revision: ATP4 Publication date: 2011-11-05
Date of revision: 2014-10-24

Reference number: 3700 Product number: 10642

Product number: 10642 5 / 10

## sulfur hexafluoride

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value	Remark
						determination	
Oral						Data waiving	
Dermal						Data waiving	
Inhalation (gases)	LC0		>800000 ppm	23 h	Rat	Inconclusive,	
						insufficient data	

As the substance is a gas, inhalation is the most appropriate route of exposure  $% \left\{ 1,2,...,n\right\}$ 

## Conclusion

Low acute toxicity by the inhalation route

## Corrosion/irritation

# sulfur hexafluoride

Route of exposure	Result	Method	Exposure time	Time point	Species	Value	Remark
						determination	
Eye						Data waiving	
Skin						Data waiving	
Inhalation	Not irritating		23 h		Rat	Literature study	

The liquid form can cause frostbites, typical for all liquified gases

#### Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes  $% \left\{ 1,2,\ldots ,n\right\}$ 

Not classified as irritating to the respiratory system

## Respiratory or skin sensitisation

## sulfur hexafluoride

Route of exposure	Result	Method	 Observation time point	Species	Value determination	Remark
Skin					Data waiving	

The study on skin sensitisation does not need to be conducted as the substance is a gas

# Conclusion

Not classified as sensitizing for skin

# Specific target organ toxicity

# sulfur hexafluoride

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Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value		
								determination		
Oral								Data waiving		
Dermal								Data waiving		
Inhalation (gases)	NOAEC		302687 mg/m³ air		No effect	28 days (6h/day)	Rat (male/female)	Experimental value		

As the substance is a gas, inhalation is the most appropriate route of exposure

## Conclusion

Not classified for subchronic toxicity

# Mutagenicity (in vitro)

# sulfur hexafluoride

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Result	Method	Test substrate	Effect	Value determination								
Negative with metabolic	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value								
activation, negative without												
metabolic activation												
Negative with metabolic	OECD 476	Mouse (lymphoma L5178Y	No effect	Experimental value								
activation, negative without		cells)										
metabolic activation												

# Mutagenicity (in vivo)

# sulfur hexafluoride

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474	28 days (6h/day)	Rat (male/female)		Experimental value

# Carcinogenicity

# sulfur hexafluoride

Route of exposure	Parameter	Method	Value	Exposure time	 Value determination	Organ	Effect
Inhalation					Data waiving		
Dermal					Data waiving		

Reason for revision: ATP4 Publication date: 2011-11-05
Date of revision: 2014-10-24

Reference number: 3700

Revision number: 0100 Product number: 10642 6 / 10

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## Reproductive toxicity

sulfur hexafluoride

	Parameter	Method	Value	Exposure time	Species	Effect	- 0-	Value determination
Developmental toxicity	NOAEC	OECD 422	302687 mg/m <sup>3</sup>	28 days	Rat	No effect		Experimental
			air	(6h/day)	(male/female)			value
Maternal toxicity	NOAEC	OECD 422	302867 mg/m <sup>3</sup>	28 days	Rat	No effect		Experimental
			air	(6h/day)				value
Effects on fertility	NOAEC (P/F1)	OECD 422	302867 mg/m <sup>3</sup>	28 days	Rat	No effect		Experimental
			air	(6h/day)	(male/female)			value

## **Conclusion CMR**

Not classified for reprotoxic or developmental toxicity

Not classified for mutagenic or genotoxic toxicity

Not classified for carcinogenicity

## **Toxicity other effects**

sulfur hexafluoride

No (test)data available

## Chronic effects from short and long-term exposure

sulfur hexafluoride

No effects known.

# SECTION 12: Ecological information

# 12.1 Toxicity:

sulfur hexafluoride

	Parameter	Method	Value	Duration	Species		Fresh/salt water	Value determination
Acute toxicity fishes	LC50	ECOSAR	236 mg/l	96 h	Pisces		Fresh water	QSAR
Acute toxicity invertebrates	LC50	ECOSAR	247 mg/l	48 h	Daphnia sp.	Static system	Fresh water	QSAR
Toxicity algae and other aquatic	ErC50	ECOSAR	151 mg/l	96 h	Algae	Static system	Fresh water	QSAR
plants								

# Conclusion

Slightly harmful to fishes (LC50(96h) 100-1000 mg/l)

Slightly harmful to invertebrates (Daphnia)

Slightly harmful to algae (EC50: 100 - 1000 mg/l)

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

# 12.2 Persistence and degradability:

sulfur hexafluoride

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
Other	891 day(s)	500000 /cm³	Experimental value
		•	-

Half-life water (t1/2 water)

Method		Primary degradation/mineralisation	Value determination
	3.5 h		Calculated value

Half-life soil (t1/2 soil)

Method	Primary degradation/mineralisation	Value determination
		Not applicable (gas)

# Conclusion

Biodegradability: not applicable

# 12.3 Bioaccumulative potential:

sulfur hexafluoride

# Log Kow

Method	Remark	Value	Temperature	Value determination
EPIWIN		1.64	20 °C	Calculated

# Conclusion

Low potential for bioaccumulation (Log Kow < 4)

Reason for revision: ATP4 Publication date: 2011-11-05 Date of revision: 2014-10-24

Reference number: 3700 Product number: 10642

Revision number: 0100 7/10

# 12.4 Mobility in soil:

sulfur hexafluoride

#### Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
4.52 atm m³/mol		25 °C		Experimental value

#### Percent distribution

Method	Fraction air	 Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	100 %	0 %	0 %	0 %	Calculated value

#### Conclusion

Not applicable (gas)

## 12.5 Results of PBT and vPvB assessment:

The criteria of PBT and vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006 do not apply to inorganic substances.

# 12.6 Other adverse effects:

sulfur hexafluoride

Global warming potential (GWP)

Fluorinated greenhouse gases	Lifetime	Radiative efficiency	SAR‡ (100-yr)	Global warming	GWP 500-yr time
				potential (GWP)	horizon
Sulphur hexafluoride				22800	

Included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006)

# Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

# **SECTION 13: Disposal considerations**

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

## 13.1 Waste treatment methods:

#### 13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

16 05 05 (gases in pressure containers and discarded chemicals: gases in pressure containers other than those mentioned in 16 05 04). Depending on branch of industry and production process, also other waste codes may be applicable. Can be considered as non hazardous waste according to Directive 2008/98/EC.

# 13.1.2 Disposal methods

Refer to manufacturer/supplier for information on recovery/ recycling. Remove waste in accordance with local and/or national regulations. Use appropriate containment to avoid environmental contamination.

## 13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).

15 01 04 (metallic packaging).

# **SECTION 14: Transport information**

# Road (ADR)

1080
Sulphur hexafluoride
20
2
2A
2.2
no
Combination packagings: not more than 120 ml per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

# Rail (RID)

14.1	UN number:	
[	JN number	1080

Reason for revision: ATP4 Publication date: 2011-11-05
Date of revision: 2014-10-24

Reference number: 3700
Product number: 10642

Revision number: 0100 Product number: 10642 8 / 10

4.2 UN proper shipping name:	Culation benefit as 11
Proper shipping name	Sulphur hexafluoride
4.3 Transport hazard class(es):	
Hazard identification number	20
Class	2
Classification code	2A
4.4 Packing group:	
Packing group	
Labels	2.2 (+13)
4.5 Environmental hazards:	
Environmentally hazardous substance mark	no
4.6 Special precautions for user:	<u> </u>
Special provisions	
Limited quantities	Combination packagings: not more than 120 ml per inner packaging liquids. A package shall not weigh more than 30 kg. (gross mass)
nd waterways (ADN)	
4.1 UN number:	
UN number	1080
4.2 UN proper shipping name:	12000
Proper shipping name	Sulphur havafluorida
1 1 9	Sulphur hexafluoride
4.3 Transport hazard class(es):	
Class	2
Classification code	2A
4.4 Packing group:	
Packing group	
Labels	2.2
4.5 Environmental hazards:	
Environmentally hazardous substance mark	no
4.6 Special precautions for user:	
Special provisions	
Limited quantities	Combination packagings: not more than 120 ml per inner packaging liquids. A package shall not weigh more than 30 kg. (gross mass)
(IMDG/IMSBC) 4.1 UN number:	
	1080
UN number	1080
UN number 4.2 UN proper shipping name:	
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UN number  4.2 UN proper shipping name: Proper shipping name  4.3 Transport hazard class(es): Class  4.4 Packing group: Packing group Labels  4.5 Environmental hazards: Marine pollutant	Sulphur hexafluoride  2.2  2.2
UN number  4.2 UN proper shipping name: Proper shipping name  4.3 Transport hazard class(es): Class  4.4 Packing group: Packing group Labels  4.5 Environmental hazards: Marine pollutant Environmentally hazardous substance mark	Sulphur hexafluoride  2.2
UN number  4.2 UN proper shipping name: Proper shipping name  4.3 Transport hazard class(es): Class  4.4 Packing group: Packing group Labels  4.5 Environmental hazards: Marine pollutant Environmentally hazardous substance mark  4.6 Special precautions for user:	Sulphur hexafluoride  2.2  2.2
UN number  4.2 UN proper shipping name: Proper shipping name  4.3 Transport hazard class(es): Class  4.4 Packing group: Packing group Labels  4.5 Environmental hazards: Marine pollutant Environmentally hazardous substance mark	Sulphur hexafluoride  2.2  2.2
UN number  4.2 UN proper shipping name: Proper shipping name  4.3 Transport hazard class(es): Class  4.4 Packing group: Packing group Labels  4.5 Environmental hazards: Marine pollutant Environmentally hazardous substance mark  4.6 Special precautions for user: Special provisions Limited quantities	Sulphur hexafluoride  2.2
UN number  4.2 UN proper shipping name: Proper shipping name  4.3 Transport hazard class(es): Class  4.4 Packing group: Packing group Labels  4.5 Environmental hazards: Marine pollutant Environmentally hazardous substance mark  4.6 Special precautions for user: Special provisions Limited quantities	Sulphur hexafluoride  2.2  - no  Combination packagings: not more than 120 ml per inner packaging liquids. A package shall not weigh more than 30 kg. (gross mass) d the IBC Code:
UN number  4.2 UN proper shipping name: Proper shipping name  4.3 Transport hazard class(es): Class  4.4 Packing group: Packing group Labels  4.5 Environmental hazards: Marine pollutant Environmentally hazardous substance mark  4.6 Special precautions for user: Special provisions Limited quantities	Sulphur hexafluoride  2.2
UN number  4.2 UN proper shipping name: Proper shipping name  4.3 Transport hazard class(es): Class  4.4 Packing group: Packing group Labels  4.5 Environmental hazards: Marine pollutant Environmentally hazardous substance mark  4.6 Special precautions for user: Special provisions Limited quantities  4.7 Transport in bulk according to Annex II of MARPOL 73/78 and Annex II of MARPOL 73/78	Sulphur hexafluoride  2.2  - no  Combination packagings: not more than 120 ml per inner packaging liquids. A package shall not weigh more than 30 kg. (gross mass) d the IBC Code:
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Reference number: 3700

Revision number: 0100 Product number: 10642 9 / 10

Passenger and cargo transport: limited quantities: maximum net quantity per packaging

# SECTION 15: Regulatory information

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

#### **European legislation:**

VOC content Directive 2010/75/EU

VOC content	Remark
	Not applicable (inorganic)

European drinking water standards (Directive 98/83/EC)

## sulfur hexafluoride

Parameter	Parametric value	Note	Reference
Fluoride	1,5 mg/l		Listed in Annex I, Part B, of Directive 98/83/EC on the quality of
			water intended for human consumption.

#### National legislation The Netherlands

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 06
Waterbezwaarlijkheid	11

#### **National legislation Germany**

Schwangerschaft Gruppe	D
WGK	nwg; Classification non-water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of
	27 July 2005 (Anhang 1)
TA-Luft	5.2.4; II

#### **National legislation France**

No data available

#### **National legislation Belgium**

No data available

# Other relevant data

No data available

# 15.2 Chemical safety assessment:

A chemical safety assessment has been performed.

# SECTION 16: Other information

# Labelling according to Directive 67/548/EEC-1999/45/EC (DSD/DPD)

Not classified as dangerous in compliance with Directive 67/548/EEC and/or Directive 1999/45/EC

# Full text of any H-statements referred to under headings 2 and 3:

H280 Contains gas under pressure; may explode if heated.

(\*) = INTERNAL CLASSIFICATION BY BIG

PBT-substances = persistent, bioaccumulative and toxic substances

DSD Dangerous Substance Directive
DPD Dangerous Preparation Directive

CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

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