

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
1/14

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

1.1 Product identifier

Product name: C2CIF5 37,7504 %;CHCIF2 62,2496 %

Other Name: R502, C2CIF5 48,8 % (w/w);CHCIF2 51,2 % (w/w)

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

Identified uses: Industrial and professional. Perform risk assessment prior to use.
Refrigerant.

Uses advised against Consumer use.

1.3 Details of the supplier of the safety data sheet

Supplier

BOC
Priestley Road, Worsley
M28 2UT Manchester

Telephone: 0800 111 333

E-mail: ReachSDS@boc.com

1.4 Emergency telephone number: 0800 111 333

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended.

N; R59

The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended.

Physical Hazards

Gases under pressure	Liquefied gas	H280: Contains gas under pressure; may explode if heated.
----------------------	---------------	---

Environmental Hazards

Hazardous to the ozone layer	Category 1	H420: Harms public health and the environment by destroying ozone in the upper atmosphere.
------------------------------	------------	--

2.2 Label Elements



Signal Words: Warning

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
2/14

Hazard Statement(s): H280: Contains gas under pressure; may explode if heated.
H420: Harms public health and the environment by destroying ozone in the upper atmosphere.

Precautionary Statement

Prevention: None.
Response: None.
Storage: P403: Store in a well-ventilated place.
Disposal: None.

Supplemental label information

EIGA-As: Asphyxiant in high concentrations.

2.3 Other hazards: Contact with evaporating liquid may cause frostbite or freezing of skin.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical name	Chemical formula	Concentration	CAS-No.	EC No.	REACH Registration No.	Notes
Chlorodifluoromethane	CHCIF2	62.2496%	75-45-6	200-871-9	01-2119517587-31	#
Chloropentafluoroethane	C2CIF5	37.7504%	76-15-3	200-938-2	Not available.	

The concentrations of the components in the SDS header, product name on page one and in section 3.2 are in mol due to regulatory requirements. All concentrations are nominal.

This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Classification		Notes
Chlorodifluoromethane	DSD:	N; R59	
	CLP:	Ozone 1;H420, Press. Gas Liquef. Gas;H280	
Chloropentafluoroethane	DSD:	N; R59	
	CLP:	Ozone 1;H420, Press. Gas Liquef. Gas;H280	

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

The full text for all R-phrases and H-statements is displayed in section 16.

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
3/14

SECTION 4: First Aid Measures

General: In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

4.1 Description of first aid measures

Inhalation: In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

Eye contact: Rinse the eye with water immediately. Remove contact lenses, if present and easy to do. Continue rinsing. Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.

Skin Contact: Contact with evaporating liquid may cause frostbite or freezing of skin.

Ingestion: Ingestion is not considered a potential route of exposure.

4.2 Most important symptoms and effects, both acute and delayed: Respiratory arrest. Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: Respiratory arrest. Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.

Treatment: Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention.

SECTION 5: Firefighting Measures

General Fire Hazards: Heat may cause the containers to explode.

5.1 Extinguishing media

Suitable extinguishing media: Material will not burn. In case of fire in the surroundings: use appropriate extinguishing agent.

Unsuitable extinguishing media: None.

5.2 Special hazards arising from the substance or mixture: No data available.

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
4/14

Hazardous Combustion Products: If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition: Carbonyl difluoride
; carbon monoxide
; phosgene; carbonyl chloride
; Hydrogen chloride
; Hydrogen fluoride

5.3 Advice for firefighters

Special fire fighting procedures:

In case of fire: Stop leak if safe to do so. Continue water spray from protected position until container stays cool. Use extinguishants to contain the fire. Isolate the source of the fire or let it burn out.

Special protective equipment for firefighters:

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Guideline: EN 469 Protective clothing for firefighters. Performance requirements for protective clothing for firefighting. EN 15090 Footwear for firefighters. EN 659 Protective gloves for firefighters. EN 443 Helmets for fire fighting in buildings and other structures. EN 137 Respiratory protective devices - Self-contained open-circuit compressed air breathing apparatus with full face mask - Requirements, testing, marking.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Evacuate area. Provide adequate ventilation. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. EN 137 Respiratory protective devices - Self-contained open-circuit compressed air breathing apparatus with full face mask - Requirements, testing, marking.

6.2 Environmental Precautions:

Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up:

Provide adequate ventilation.

6.4 Reference to other sections:

Refer to sections 8 and 13.

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1. 0

SDS No.: 000010028942
5/14

SECTION 7: Handling and Storage:

7.1 Precautions for safe handling:

Only experienced and properly instructed persons should handle gases under pressure. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Refer to supplier's handling instructions. The substance must be handled in accordance with good industrial hygiene and safety procedures. Protect containers from physical damage; do not drag, roll, slide or drop. Do not remove or deface labels provided by the supplier for the identification of the container contents. When moving containers, even for short distances, use appropriate equipment eg. trolley, hand truck, fork truck etc. Secure cylinders in an upright position at all times, close all valves when not in use. Provide adequate ventilation. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Avoid suckback of water, acid and alkalis. Keep container below 50°C in a well ventilated place. Observe all regulations and local requirements regarding storage of containers. When using do not eat, drink or smoke. Store in accordance with local/regional/national/international regulations. Never use direct flame or electrical heating devices to raise the pressure of a container. 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. Damaged valves should be reported immediately to the supplier. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to repair or modify container valves or safety relief devices. Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment. Keep container valve outlets clean and free from contaminants particularly oil and water. If user experiences any difficulty operating container valve discontinue use and contact supplier. Never attempt to transfer gases from one container to another. Container valve guards or caps should be in place.

7.2 Conditions for safe storage, including any incompatibilities:

Containers should not be stored in conditions likely to encourage corrosion. Stored containers should be periodically checked for general conditions and leakage. Container valve guards or caps should be in place. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from combustible material.

7.3 Specific end use(s):

None.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	type	Exposure Limit Values	Source
Chlorodifluoromethane	TWA	1,000 ppm 3,590 mg/m3	UK. EH40 Workplace Exposure Limits (WELs) (12 2011)
	TWA	1,000 ppm 3,600 mg/m3	EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU (12 2009)

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1. 0

SDS No.: 000010028942
6/14

PNEC-Values

Critical component	type	Value	Remarks
Chlorodifluoromethane	Aquatic (marine water)	0.038 mg/l	-
	Aquatic (intermit. releases)	3.786 mg/l	-
	Soil	0.134 mg/kg	-
	Aquatic (freshwater)	0.378 mg/l	-
	Sediment (marine water)	0.187 mg/kg	-
	Sediment (freshwater)	1.871 mg/kg	-

8.2 Exposure controls

Appropriate engineering controls:

Consider a work permit system e.g. for maintenance activities. Ensure adequate air ventilation. Oxygen detectors should be used when asphyxiating gases may be released. Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Systems under pressure should be regularly checked for leakages. Preferably use permanent leak tight connections (eg. welded pipes). Do not eat, drink or smoke when using the product.

Individual protection measures, such as personal protective equipment

General information:

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. Keep self contained breathing apparatus readily available for emergency use. Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

Eye/face protection:

Safety eyewear, goggles or face-shield to EN166 should be used to avoid exposure to liquid splashes. Wear eye protection to EN 166 when using gases. Guideline: EN 166 Personal Eye Protection.

Skin protection

Hand Protection:

Wear working gloves while handling containers
Guideline: EN 388 Protective gloves against mechanical risks.

Body protection:

No special precautions.

Other:

Wear safety shoes while handling containers
Guideline: ISO 20345 Personal protective equipment - Safety footwear.

Respiratory Protection:

Not required.

Thermal hazards:

No precautionary measures are necessary.

Hygiene measures:

Specific risk management measures are not required beyond good industrial hygiene and safety procedures. Do not eat, drink or smoke when using the product.

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1. 0

SDS No.: 000010028942
7/14

Environmental exposure controls: For waste disposal, see section 13.

SECTION 9: Physical And Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	Gas
Form:	Liquefied gas
Colour:	CHCIF2: Colourless C2CIF5, CCIF2CF3: Colourless
Odour:	CHCIF2: Faint sweetish odour C2CIF5, CCIF2CF3: Odourless
Odour Threshold:	Odour threshold is subjective and is inadequate to warn of over exposure.
pH:	not applicable.
Melting Point:	No data available.
Boiling Point:	-45.4 °C
Sublimation Point:	not applicable.
Critical Temp. (°C):	82.2 °C
Flash Point:	Not applicable to gases and gas mixtures.
Evaporation Rate:	Not applicable to gases and gas mixtures.
Flammability (solid, gas):	This product is not flammable.
Flammability limit - upper (%):	not applicable.
Flammability limit - lower(%):	not applicable.
Vapour pressure:	10.2 bar (20 °C)
Vapour density (air=1):	3.95 (calculated) (15 °C)
Relative density:	1.24
Solubility(ies)	
Solubility in Water:	No data available.
Partition coefficient (n-octanol/water):	Not known.
Autoignition Temperature:	not applicable.
Decomposition Temperature:	Not known.
Viscosity	
Kinematic viscosity:	No data available.
Dynamic viscosity:	No data available.
Explosive properties:	Not applicable.
Oxidising Properties:	not applicable.

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

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
8/14

SECTION 10: Stability and Reactivity

- 10.1 Reactivity:** No reactivity hazard other than the effects described in sub-section below.
- 10.2 Chemical Stability:** Stable under normal conditions.
- 10.3 Possibility of Hazardous Reactions:** May react with aluminium.
- 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. Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.

SECTION 11: Toxicological Information

General information: None.

11.1 Information on toxicological effects

Acute toxicity - Oral Product Based on available data, the classification criteria are not met.

Acute toxicity - Dermal Product Based on available data, the classification criteria are not met.

Acute toxicity - Inhalation Product Not classified for acute toxicity based on available data.

Component information

Chlorodifluoromethane LC 50 (Rat, 4 h): > 250000 ppm Remarks: Inhalation

Skin Corrosion/Irritation Product

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

Serious Eye Damage/Eye Irritation Product

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

Component information

Chlorodifluoromethane Not irritating

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
9/14

Respiratory or Skin Sensitisation

Product Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Product Based on available data, the classification criteria are not met.

Carcinogenicity

Product Based on available data, the classification criteria are not met.

Reproductive toxicity

Product Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Product Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Product Based on available data, the classification criteria are not met.

Aspiration Hazard

Product Not applicable to gases and gas mixtures..

Other Relevant Toxicity Information

Chlorodifluoromethane Cardiac sensitisation threshold limit
50000 ppm
May produce irregular heart beat and nervous symptoms.

SECTION 12: Ecological Information

12.1 Toxicity

Acute toxicity

Product No ecological damage caused by this product.

Acute toxicity - Fish

Component information

Chlorodifluoromethane EC 50 (Fish, 96 h): 433 mg/l

Acute toxicity - Aquatic Invertebrates

Component information

Chlorodifluoromethane EC 50 (Water flea (Daphnia magna), 48 h): 433 mg/l

Toxicity to aquatic plants

Component information

Chlorodifluoromethane EC 50 (Alga, 72 h): 3,776 mg/l

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
10/14

12.2 Persistence and Degradability

Product

Not applicable to gases and gas mixtures..

12.3 Bioaccumulative Potential

Product

The product is expected to biodegrade and is not expected to persist for long periods in an aquatic environment.

12.4 Mobility in Soil

Product

Because of its high volatility, the product is unlikely to cause ground or water pollution.

Component information

Chlorodifluoromethane

Henry's Law Constant: 227.7 MPa (22 °C)

Chloropentafluoroethane

Henry's Law Constant: 16,823 MPa (25 °C)

12.5 Results of PBT and vPvB assessment

Product

Not classified as PBT or vPvB.

12.6 Other Adverse Effects:

Global Warming Potential

Global warming potential: 4,701.2

Contains greenhouse gas(es) not covered by 842/2006/EC. Contains greenhouse gas(es). When discharged in large quantities may contribute to the greenhouse effect.

Component information

Chlorodifluoromethane

UN / IPCC. Greenhouse Gas Global Warming Potentials (IPCC Fourth Assessment Report, Climate Change, Table TS.2

- Global warming potential: 1810 100-yr

Chloropentafluoroethane

UN / IPCC. Greenhouse Gas Global Warming Potentials (IPCC Fourth Assessment Report, Climate Change, Table TS.2

- Global warming potential: 7370 100-yr

Ozone Depleting Potential

May have a damaging effect on the ozone layer.

Component information

Chlorodifluoromethane

EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances

- Ozone Depletion Potential: 0.055 Group VIII

Chloropentafluoroethane

EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances

- Ozone Depletion Potential: 0.6 Group I

SAFETY DATA SHEET

G2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
11/14

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

General information: Must not be discharged to atmosphere. Do not discharge into any place where its accumulation could be dangerous. Refer to manufacturer/supplier for information on recovery/recycling Consult supplier for specific recommendations.

Disposal methods: 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. Dispose of container via supplier only. Discharge, treatment, or disposal may be subject to national, state, or local laws.

European Waste Codes

Container: 16 05 05: Gases in pressure containers other than those mentioned in 16 05 04.

SECTION 14: Transport Information

ADR

14.1 UN Number: UN 1973
14.2 UN Proper Shipping Name: CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE (REFRIGERANT GAS R 502)
14.3 Transport Hazard Class(es)
Class: 2
Label(s): 2.2
Hazard No. (ADR): 20
Tunnel restriction code: (C/E)
Emergency Action Code: 2TE
14.4 Packing Group: -
14.5 Environmental hazards: not applicable
14.6 Special precautions for user: -

RID

14.1 UN Number: UN 1973
14.2 UN Proper Shipping Name: CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE (REFRIGERANT GAS R 502)
14.3 Transport Hazard Class(es)
Class: 2
Label(s): 2.2
14.4 Packing Group: -
14.5 Environmental hazards: not applicable
14.6 Special precautions for user: -

SAFETY DATA SHEET

G2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
12/14

IMDG

14.1 UN Number: UN 1973
14.2 UN Proper Shipping Name: CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE (REFRIGERANT GAS R 502)
14.3 Transport Hazard Class(es)
Class: 2.2
Label(s): 2.2
EmS No.: F-C, S-V
14.3 Packing Group: -
14.5 Environmental hazards: not applicable
14.6 Special precautions for user: -

IATA

14.1 UN Number: UN 1973
14.2 Proper Shipping Name: Refrigerant gas R 502
14.3 Transport Hazard Class(es):
Class: 2.2
Label(s): 2.2
14.4 Packing Group: -
14.5 Environmental hazards: not applicable
14.6 Special precautions for user: -
Other information
Passenger and cargo aircraft: Allowed.
Cargo aircraft only: Allowed.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: not applicable

Additional identification: 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 that they are firmly secured. Ensure that the container valve is closed and not leaking. Container valve guards or caps should be in place. Ensure adequate air ventilation.

SECTION 15: Regulatory information

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

EU Regulations

Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer:

Chemical name	CAS-No.	Concentration
Chlorodifluoromethane	75-45-6	60 - 70%
Chloropentafluoroethane	76-15-3	30 - 40%

Directive 96/61/EC: concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registry (EPER):

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
13/14

Chemical name	CAS-No.	Concentration
Chlorodifluoromethane	75-45-6	60 - 70%
Chloropentafluoroethane	76-15-3	30 - 40%

National Regulations

Management of Health and Safety at Work Regulations (1999 No. 3242). The Regulatory Reform (Fire Safety) Order 2005 (2005 No. 1541). Control of Substances Hazardous to Health Regulations (COSHH, 2002 No. 2677). Provision and Use of Work Equipment Regulations (PUWER, 1998 No. 2306). Personal Protective Equipment Regulations (1992 No. 2966). Control of Major Accident Hazards Regulations (COMAH, 2015 No. 483). Pressure Systems Safety Regulations (PSSR, 2000 No. 128). Only products that comply with the food regulations (EC) No. 1333/2008 and (EU) No. 231/2012 and are labelled as such may be used as food additives. This Safety Data Sheet has been produced to comply with Regulation (EU) 453/2010.

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other Information

Revision Information: Not relevant.

Key literature references and sources for data: Various sources of data have been used in the compilation of this SDS, they include but are not exclusive to:
 Agency for Toxic Substances and Diseases Registry (ATSDR) (<http://www.atsdr.cdc.gov/>).
 European Chemical Agency: Guidance on the Compilation of Safety Data Sheets.
 European Chemical Agency: Information on Registered Substances <http://apps.echa.europa.eu/registered/registered-sub.aspx#search>
 European Industrial Gases Association (EIGA) Doc. 169 Classification and Labelling guide.
 International Programme on Chemical Safety (<http://www.inchem.org/>)
 ISO 10156:2010 Gases and gas mixtures - Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets.
 Matheson Gas Data Book, 7th Edition.
 National Institute for Standards and Technology (NIST) Standard Reference Database Number 69.
 The ESIS (European chemical Substances 5 Information System) platform of the former European Chemicals Bureau (ECB) ESIS (<http://ecb.jrc.ec.europa.eu/esis/>).
 The European Chemical Industry Council (CEFIC) ERICards.
 United States of America's National Library of Medicine's toxicology data network TOXNET (<http://toxnet.nlm.nih.gov/index.html>)
 Threshold Limit Values (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH).
 Substance specific information from suppliers.
 Details given in this document are believed to be correct at the time of publication.
 EH40 (as amended) Workplace exposure limits.

SAFETY DATA SHEET

C2CIF5 37,7504 %;CHCIF2 62,2496 %

Issue Date: 19.11.2015
Last revised date: 19.11.2015

Version: 1.0

SDS No.: 000010028942
14/14

Wording of the R-phrases and H-statements in sections 2 and 3

H280	Contains gas under pressure; may explode if heated.
H420	Harms public health and the environment by destroying ozone in the upper atmosphere.
R59	Dangerous for the ozone layer.

Training information:

Users of breathing apparatus must be trained. The hazard of asphyxiation is often overlooked and must be stressed during operator training. Ensure operators understand the hazards.

Classification according to Regulation (EC) No 1272/2008 as amended.

Press. Gas Liq. Gas, H280
Ozone 1, H420

Other information:

Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out. Ensure adequate air ventilation. Ensure all national/local regulations are observed. 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. Note: When the Product Name appears in the SDS header the decimal sign and its position comply with rules for the structure and drafting of international standards, and is a comma on the line. As an example 2,000 is two (to three decimal places) and not two thousand, whilst 1.000 is one thousand and not one (to three decimal places).

Last revised date:

19.11.2015

Disclaimer:

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.