

SAFETY DATA SHEET

Product name / chemical name: R507A / of  $C_2H_3F_3$  50%;  $C_2HF_5$  50% (% by weight)

SDS according to setting: EU 2015/830

(\*) oncly chemical-announcement

(\*\*) to be filled either 3.1 or 3.2

SECTION 1	SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY/UNDERTAKING		
1.1	Product identifier		
	Product name	R507A Refrigerant	
	<b>Chemical name, formula</b> Mixture of $C_2H_3F_3$ 50%; $C_2HF_5$ 50%; (% by weight)		
	CAS	1,1,1-Trifluoroethane C <sub>2</sub> H <sub>3</sub> F <sub>3</sub> , CAS nr 420-46-2, REACH 01-2119492869-13	
	REACH-rek.nro	Pentafluoroethane C <sub>2</sub> HF <sub>5</sub> , CAS nr 354-33-6, REACH 01-2119485636-25	

1.	2 Relevant identified uses of the	Relevant identified uses of the substance		
	Identified uses	dentified uses Industrial and professional use. Perform risk assessment prior to use.		
		Refrigerant.		
	Use advised against	Consumer use.		

1.3	Details of the supplier of the safety data sheet		
	Darmont Ou		
	Darment Oy		
	VAT	FI09368266	
	Address	Ruosilantie 18	
	Postal code and city	00390 HELSINKI	
	Telephone	+358 20 5588 250	
	E-mail	info@darment.fi	
	www-site, www-shop site	darment.fi, kauppa.darment.fi	

## **Emergency telephone numbers in Finland**

tel. **112** 

tes. 0800 147 111, HUS Poison Information Center (free calls), tel. 09 471 977, open 24 h/day.

SECTION 2: HAZARDS IDENTIFICATION	
2.1	Classification of the substance or mixture

## Classification accordint to Regulation (EU) N:o 1272/2008 as amended.

**Physical Hazards** 

Gases under pressure

Liquefied gas

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



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# 2.2 Label Elements

GHS Hazard Pictogram(s) Hazard Statement(s):				
	H280	Contains gas ur	nder pressure; may explode if heated.	
	Precautionary Statements			
	Prevention	None		
	Response	None		
	Storage	P410 + P403	Protect from sunlight. Store in a well-ventilated place.	
•	Disposal	None		
Signal Word: Warning	Supplement	al label informati	ion:	
	Asphyxiant in	n high concentrat	tions.	
		-		

2.3 Other hazards

Misuse or inhalation abuse may cause death without warning symptoms due to cardiatic effects. May cause suffocation due to displace of oxygen.

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

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS				
3.2 Mixtures				
Chemical name, trade name	CAS No, EC-No, REACH Reg. No	Concentration (% w/w)	Classification CLP	
1,1,1-Trifluoroethane, $C_2H_3F_3$ , R143a	CAS 420-46-2 EU 206-996-5 REACH 01-2119492869-13	50 %	Flam. Gas 1; H221, Press. Gas Liquefied Gas; H280	
Pentafluoroethane, C <sub>2</sub> HF <sub>5</sub> , R125	CAS No 354-33-6 EC No 206-557-8 REACH 01-2119485636-25	50%	Press. Gas Liquefied Gas; H280	

All concentrations are nominal. Classification, CLP Regulation No. 1272/2008.

SECTION 4: FIRST AID MEASURES	
4.1	Description of first aid measures

**Inhalation:** In high concentrations may cause asphyxiation. Symptoms may include loss of mobility or 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 or 112. Apply artificial respiration if breathing stopped.

**Skin contact:** Contact with evaporating liquid may cause frostbite or freezing of skin. thaw frostbite skin lukewarm water, get medical attention immediately.

**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.

**Ingestion:** Ingestion is not considered a potential route of exposure. But In case of ingestion, seek medical advice immediately and show the safety data sheet for this product.

Notes to physician: Do not give drugs from adrenaline-ephedrine group.



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#### 4.2 Most important symptoms an effects, acute and delayed

Respiratory arrest. Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling. May cause cardiac arrhythmia.

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

Hazards: Respiratory arrest. Cardiatic sensitization, anaesthetif effects, light-headedness, dizziness, confusion, lack of coordination, drowsinesss, unconsciousness.

Skin contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling, Eye contact may cause redness and discomfort. Get medical attention immediately.

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

#### **SECTION 5: FIREFIGHTING MEASURES**

Heat may cause the containers to explode. Material will not burn.

# 5.1 Extinguishing media

Suitable extinguishing media: Not applicable, will not burn Unsuitable Extinguishing media: Not applicable, will not burn

# 5.2 Special hazards arising from the substance or mixture

Exposure to combustion products may be ahazard to health. Fire or excessive heat may cause vessels bursting due to the high vapour pressure.

Hazardous Combustion Products: Carbon oxides, fluorine compounds, hydrogen fluoride.

#### 5.3 Advice for firefighters

**Special fire fighting procedures:** In case of fire stop leak if safe to do so. Continue spraying water from protected position until container stays cool. Use extinguishant. Isolate the source of the fire or let it burn out.

Follow the internal emergency plan and general accident and emergency guidelines.

Depending on the intensity of the fire, it may be necessary to wear full protective clothing and self-contained breathing apparatus. Safety equipment and first aid equipment must be available at the minimum level.

**Firefighters** must wear standard protective equipment: a fire-resistant jacket, a helmet with a face shield, gloves and rubber boots even in an enclosed area with an oxygen device.

**Instructions:** EN 469 Protective clothing for firefighters. Requirements and test methods for fire rating. EN 15090 Safety footwear for firefighters. EN 659 Protective gloves for firefighters. EN 443 Helmets for fire fighting in houses and others constructions. Standard EN 137 Compressed air breathing apparatus - Portable open circuit compressed air devices - Requirements, testing, marking.



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# SECTION 6: ACCIDENTAL RELEASE MEASURES

# 6.1 Personal precautions, protective equipments 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.

Standard 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 References to other sections

Refer to sections 8 and 13.



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SECTION	7: HANDLING AND STORAGE
7.1	Precautions for safe handling
	Only experienced and properly instructed persons should handle gases under pressure.
	<ul> <li>Use only properly specified equipment which is suitable for this product, its supply pressure and</li> </ul>
	temperature.
	<ul> <li>Refer to supplier's handling instructions.</li> </ul>
	<ul> <li>The substance must be handled in accordance with good industrial hygiene and safety procedures.</li> </ul>
	<ul> <li>Protect containers from physical damage; do not drag, roll, slide or drop.</li> </ul>
	<ul> <li>Do not remove or deface labels provided by the supplier for the identification of the container contents.</li> </ul>
	<ul> <li>When moving containers, even for short distances, use appropriate equipment eg. trolley, hand truck,</li> </ul>
	fork truck etc.
	<ul> <li>Secure cylinders in an upright position at all times, close all valves when not in use.</li> </ul>
	<ul> <li>Provide adequate ventilation.</li> </ul>
	<ul> <li>Suck back of water into the container must be prevented.</li> </ul>
	<ul> <li>Do not allow backfeed into the container.</li> </ul>
	<ul> <li>Avoid suckback of water, acid and alkalis.</li> </ul>
	<ul> <li>Keep container below 50°C in a well ventilated place.</li> </ul>
	<ul> <li>Observe all regulations and local requirements regarding storage of containers.</li> </ul>
	<ul> <li>When using do not eat, drink or smoke.</li> </ul>
	<ul> <li>Observe all legal and local requirements for the storage of cylinders / containers.</li> </ul>
	<ul> <li>Never use direct flame or electrical heating devices to raise the pressure of a container.</li> </ul>
	<ul> <li>Leave valve protection caps in place until the container has been secured against either a wall or bench</li> </ul>
	or placed in a container stand and is ready for use.
	<ul> <li>Damaged valves should be reported immediately to the supplier Close container valve after each use</li> </ul>
	and when empty, even if still connected to equipment.
	<ul> <li>Never attempt to repair or modify container valves or safety relief devices.</li> </ul>
	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 contaminates particularly oil and water.
	• If user experiences any difficulty operating container valve discontinue use and contact supplier.
	<ul> <li>Never attempt to transfer gases from one container to another.</li> </ul>
	<ul> <li>Container valve guards or caps should be in place.</li> </ul>
7.2	Conditions for safe storage including any incompatibilities
	Containers should not be stored in conditions likely to encourage corrosion.
	<ul> <li>Stored containers should be periodically checked for general conditions and leakage.</li> </ul>
	<ul> <li>Container valve guards or caps should be in place.</li> </ul>
	<ul> <li>Store containers in location free from fire risk and away from sources of heat and ignition.</li> </ul>
	<ul> <li>Keep away from:</li> </ul>
	self-reactive substances and mixtures
	• organic peroxides
	• oxidizing agents
	<ul> <li>flammable and/or pyrophoric liquids and solids</li> </ul>
	<ul> <li>self-heating materials</li> </ul>
	<ul> <li>substances and mixtures that emit flammable gases if in contact with water</li> </ul>
	• explosives
	toxic mixtures and substances

• toxic mixtures and substances



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7.3 Spec

Specific end use(s) None.

# **SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

# 8.1 Control parameters

DNEL Values			
Critical ingredient	Туре	Value	Comments
Pentafluoroethane	Worker – inhalative, longterm – systemic	16444 mg/m <sup>3</sup>	Repeated dose toxicity.
	General population – inhalation, systemic, long-term	1753 mg/m <sup>3</sup>	Repeated dose toxicity.
1,1,1-Trifluoroethane	Worker – inhalative, longterm – systemic	38800 mg/m3	Repeated dose toxicity.
	General population – inhalation, systemic, long-term	10700 mg/m3	Repeated dose toxicity.

# **PNEC** Values

Critical component	Туре	Value	Remarks
Pentafluoroethane	Aquatic (freshwater)	100 μg /l	-
	Aquatic (intermit.releases)	1 mg/l	-
	Sediment (freshwater)	600 μg /kg	-
1,1,1-Trifluoroethane	Aquatic (freshwater)	350 μg/l	-



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#### 8.2 Exposure controls

#### Appropriate engineering controls

- Consider a work permit system e.g. for maintenance activities.
- Ensure adequate ventilation including exhaust ventilation to ensure that the specified exposure limit value 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 like 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 and face protection

To avoid exposure to liquid splashes, safety glasses, eye protection or face shields should be used in accordance with EN 166. (Instructions: EN 166 Personal Eye Protection.)

#### **Skin protection**

Hand protection: Wear working gloves while handling containers. (Guidelines: EN 388 Protective gloves against mechanical risks)

Body protection: No special precautions.

**Other:** Wear safety shoes while handling containers. Guideline: SO 20345:2011 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.

Environmental exposure controls: Waste disposal, see sec. 13.



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0.1. Information on basic physical and chemical proper	ties
Appearance, physical state, form and color	Liquefied gas, colorless.
Odor	slight, ether-like
Odor threshold	No data available
рН	Not applicable
Melting point	No data available
Boiling point (°C) at 1 bar	- 46,7
Evaporation rate	>1 (CCL4=1.0)
Flammability (solid, gas)	This product is not flammable
Flammability limit upper / lower	None. / None.
Vapor pressure	12826 hPa (25°C)
Relative density	1,05 (25°C)
Relative vapor density (Air=1,0)	3,5
Solubility (ies), 25°C	No data available
Partition coefficient, n-oktanol/water	Not applicable
Autoignition temperature	Not applicable
Decomposition temperature	No data available
Viscosity, kinematich / dynamic	Not applicable
Explosive properties	No explosive
Oxidizing properties	The mixture is not classified as oxidizing.

9.2 Other information

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

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

Can react with strong oxidizing agents.



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10.4	Conditions to avoid

Heat, open flames and sparks.

# 10.5 Incompatible materials

Oxidizing agents.

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: TOXICOLOGICAL INFORMATION		
11.1	Information on toxicological effects	

General information: Likely routes of exposure: Inhalation, skin or eye contact.

#### Acute toxicity

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

Acute t	toxicity /	Inhalation
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Component information		
Pentafluoroethane	LC∟o (Rat 4 h)	800000 ppm
1,1,1-Trifluoroethane	$LC_0$ (Rat 4 h)	591000 ppm
Repeated dose toxicity		
Component information		
Pentafluoroethane	NOAEL (Rat)	50000 ppm
1,1,1-Trifluoroethane	NOEC (Rat)	40000 ppm

## Skin corrosion / irritation

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

#### Serious eye damage / eye irritation

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

#### **Respiratory or skin sensitization**

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

#### Germ cell mutagenicity

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

#### Carcinogenicity

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

#### **Reproductive toxicity**

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

### Specific target organ toxicity – single exposure

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



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# Specific target organ toxicity - repeated exposure

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

# Aspiration toxicity

Not classified based on available information.

SECTION	TION 12: ECOLOGICAL INFORMATION				
12.1	Toxicity				
	Components:				
	A such a description of the				
	Acute toxicity – Fish: Pentafluoroethane:	LC <sub>50</sub> (4 days)	81,8 mg/l		
	Pentanuor bethane.	LC <sub>50</sub> (4 days) LC <sub>50</sub> (72 h)	450 mg/l		
		LC <sub>50</sub> (48 h)	450 mg/l		
		LC <sub>50</sub> (24 h)	560 mg/l		
		LC <sub>0</sub> (4 days)	200 mg/l		
	1,1,1-Trifluoroethane	LC <sub>10</sub> (4 days)	40 mg/l		
	Acute toxicity – Aquatic i	nvertebrates <sup>.</sup>			
	Pentafluoroethane:	EC <sub>50</sub> (48 h)	97,9 mg/l		
		LC <sub>50</sub> (24 h)	960 mg/l		
		NOEC (48 h)	97,9 mg/l		
	Toxicity to Aquatic Plants				
	Pentafluoroethane:	EC₅₀ (4 days)	142 mg/l		
		EC50 (72 h)	114 mg/l		
		NOEC (72 h)	13,2 mg/l		
	1,1,1-Trifluoroethane	EC50 (72 h)	71 mg/l		
	Toxicity to Micro-organisms				
	1,1,1-Trifluoroethane	EC <sub>0</sub> (6 h)	730 mg/l		
12.2	Persistence and degradat	oility			
	Components:				
	Pentafluoroethane:	Not readi	ily biodegradable.		
	1,1,1-Trifluoroethane:				
12.3	Bioaccumulative potentia	al			
	Components:				
	components.				
	Pentafluoroethane:				
	Partition coefficient: n-oc	tanol/water:	Pow: 1.48 (25 °C)		
	1,1,1-Trifluoroethane:				
	Partition coefficient: n-oc	tanol/water:	log Pow:1,06 – 1,74 (20°C)		



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12.4	Mobility in soil	

No data available

# 12.5 Results of PBT and vPvB

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT), neither it contains any substance considered to be very persistent and very bioaccumulating (vPvB).

#### 12.6 Other adverse effects

# **Global Warming Potential**:

GWP 3985 ODP 0

Ozone Depletion Potential:

Contains fluorinated greenhouse gases. When discharged in large quantities may contribute to the greenhouse effect. For GWP value of mixture and quantities, refer to container label.

#### **Component Information**

#### Pentafluoroethane

EU. F-Gases Subject to Emission Limits/Reporting (Annexes I, II), Regulation 517/2014/EU on FGGs- Global warming potential: 3500 Annex 1: Fluorinated greenhouse gases referred to in Point 1 of Article 2; Section 1: Hydrofluorocarbons (HFCs) and its mixtures.

#### 1,1,1-Trifluoroethane:

EU. F-Gases Subject to Emission Limits/Reporting (Annexes I, II), Regulation 517/2014/EU on FGGs- Global warming potential: 4470 Annex 1: Fluorinated greenhouse gases referred to in Point 1 of Article 2; Section 1: Hydrofluorocarbons (HFCs) and its mixtures.

# SECTION 13: DISPOSAL CONSIDERATIONS 13.1. Waste treatment methods

## **General information:**

Avoid discharges to atmosphere. Do not discharge into any place where its accumulation could be dangerous. Refer to manufacturer or supplier for information on recovery or recycling.

## **Disposal methods**

Refer to the EIGA code of practice (Doc.30 "Disposal of Gases", 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: 14 06 01\*: chlorofluorocarbons, HCFC, HFC

EU legistlation: Directive 2008/98/ETY, 2014/955/EU, EU Comission Regulation nr 1357/2014.

National legistlation (FI): Waste Act, 646/2011, 1104/2011, 195/2012, 1178/2013, 25/2014, 410/2014, 528/2014, 1062/2015, 1518/2015, 328/2016, 996/2016, 626/2017, 834/2017, 321/2018, 445/2018, 686/2018, 757/2018, 967/2018, 247/2019, 438/2019, 1421/2019.



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#### **SECTION 14: TRANSPORT INFORMATION** ADR 14.1 UN Number UN 3163 14.2 UN Proper Shipping Name LIQUIFIED GAS, N.O.S. (Pentafluoroethane, 1,1,1-Trifluoroethane). 14.3 Transport Hazard Classes 2 14.4 Packing Group Classification code 2A Hazard No. (ADR) 20 Labels 2.2 Tunnel restriction code (C/E) 14.5 Environmental Hazards Not applicable 14.6 Special precautions for users RID 14.1 UN Number UN 3163 LIQUIFIED GAS, N.O.S. (Pentafluoroethane, 14.2 UN Proper Shipping Name 1,1,1-Trifluoroethane). 14.3 Transport Hazard Classes 2 14.4 Packing Group \_ Class 2A Labels 2.2 14.5 Environmental Hazards Not applicalble 14.6 Special precautions for user: IMDG 14.1 UN Number UN 3163 14.2 UN Proper Shipping Name LIQUIFIED GAS, N.O.S. (Pentafluoroethane, 1,1,1-Trifluoroethane). 14.3 Class 2.2 14.4 Packing Group 2.2 Labels F-C, S-V EmS No. 14.5 Environmental Hazards Not applicable 14.6 Special precautions for user ΙΑΤΑ 14.1 UN Number UN 3163 14.2 UN Proper Shipping Name LIQUIFIED GAS, N.O.S. (Pentafluoroethane, 1,1,1-Trifluoroethane). 14.3 Transport Hazard Classes 2.2 14.4 Packing Group Passenger and cargo aircraft: 200 Cargo aircraft only: 200 14.5 Environmental Hazards Not applicable 14.6 Special precautions for user



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# 14.7 Transport in bulk according to Annex II of MARPOL 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 517/2014 on fluorinated greenhouse gases
- Regulation (EC) No 1907/2006 Annex XVII Restrictions on manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.
- Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work.
- Regulation (EU) 2016/425 on personal protective equipment.
- Directive 2014/34/EU on equipment and protective systems intended for use in potentially explosive atmospheres (ATEX).
- 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) 2015/830.

#### National regulations:

- Chemicals Act 599/2013
- Act amending the Chemicals Act 554/2014, 746/2016, 199/2017, 656/2018, 756/2018, 711/2020.
- Classification and Labeling of Chemicals 807/2001: amendment 687/2005, 206/2007, 655/2008, 6/2010
- Government Decree on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products 837/2005.
- Government Decree on the limitation of emissions to air from certain activities and Installations using organic solvents 64/2015
- Waste Act, 646/2011, 1104/2011, 195/2012, 1178/2013, 25/2014, 410/2014, 528/2014, 1062/2015, 1518/2015, 328/2016, 996/2016, 626/2017, 834/2017, 321/2018, 445/2018, 686/2018, 757/2018, 967/2018, 247/2019, 438/2019, 1421/2019.

Concentrations known as harmful 268/2014

#### 15.2 Chemical safety assessment

Chemical Safety Assessment has been carried out for these substances.



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#### **SECTION 16: OTHER INFORMATION**

Revision information: Not relevant.

#### Data sources of this SDS

Safety Data Sheet provided by the manufacturer. Legislation on hazardous chemicals valid at the time of writing. European Chemicals Agency, Guidance on the compilation of safety data sheets / REACH Regulation (EU) 1907/2006, ARTICLE 31: Requirements for safety data sheets. European Chemicals Agency, Information on registered substances. International Programme on Chemical Safety.

#### WWW-SOURCES

echa.europa.eu eiga.org esis.jrc.ec.europa.eu eur-lex.europa.eu atsdr.cc.gov www.lvm.fi/en/home http://toxnet.nlm.nih.gov/ http://www.who.int/ipcs/en/ www.ericards.net

## **Rating methods of classification**

Regulation (EU) No 1272/2008 (CLP), Regulation on classification, labeling and packaging of substances and mixtures. Regulation (EU) 1999/45 (DPD)

## Precautionary, Wording of the H-statements in section 2 and 3

H221Flammable gasH280Contains gas under pressure; may explode on heated.P410 + P403Protect from sunlight. Store in a well-ventilated place.

Classification according to Regulation (EC) N:o 1272/2008 as amended

Press. Gas Liquefied Gas; H280

## **Training information**

It is recommended that persons handling the product have minimum training in the prevention and protection of work-related hazards. This makes it easier to understand and interpret the safety data sheet and product labels. Users of breathing apparatus must be trained. Ensure all operators understand the flammability hazard.

## **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. Ensure equipment is adequately earthed. 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.

#### **Disclaimer:**

This information is provided without warranty. The data is trusted to be flawless. This information should be used to make an independent determination of the practices that protect workers and the environment.



SAFETY DATA SHEET

Product name / chemical name: R507A / of  $C_2H_3F_3$  50%;  $C_2HF_5$  50% (% by weight)

SDS according to setting: EU 2015/830

The information contained in this MSDS is based on sources, scientific and technical knowledge, existing national and EU legislation. The release is intended to serve the safe use of the product. We do not know or control the working methods or conditions of the users of the product. The user is always ultimately responsible for taking measures to ensure compliance with the regulations in force in the handling, storage, use and disposal of chemicals. In this context, it is noted that the information provided in the SDS also helps employers to fulfill their obligations under Directive 98/24 / EU10 on the protection of the health and safety of workers from the risks related to chemical agents at work. On the basis of the safety data sheet, users should be able to take the necessary measures in the field of health and safety to ensure safety and protect the environment.

The Safety Data Sheet is provided for in Article 31 of REACH Regulation (EU) No 1907/2006 and in Annex II to the Regulation.