

# Safety Data Sheet R417A

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

### 1.1. Product identifier

**Product name:** REFRIGERANT R417A

**Product code:** R417A

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

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

**Company name:** Ametron Refrigerants  
Delware, USA.  
E: sales@ametronint.com  
Tel: +1(628)8007167

**Emergency tel:** Carechem24 +44 (0)1865 407333

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** Press. Gas: H280

**Most important adverse effects:** Contains gas under pressure; may explode if heated.

### 2.2. Label elements

**Label elements:**

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

**Hazard pictograms:** GHS04: Gas cylinder



**Signal words:** Warning

**Precautionary statements:** P410+403: Protect from sunlight. Store in a well-ventilated place.

### 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

Ametron International LLC, 16192 Coastal Highway Lewes, Delaware 19958 - USA.

# AMETRON

## REFRIGERANTS

### Section 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous ingredients:

REFRIGERANT R134A - REACH registered number(s): 01-2119459374-33

EINECS	CAS	PBT / WEL	CLP Classification	Percent
212-377-0	811-97-2	Substance with a Community workplace exposure limit.	Press. Gas: H280	30-50%

PENTAFLUOROETHANE - REACH registered number(s): 01-2119485636-25

206-557-8	354-33-6	Substance with a Community workplace exposure limit.	Press. Gas: H280	30-50%
-----------	----------	--	------------------	--------

BUTANE

203-448-7	106-97-8	Substance with a Community workplace exposure limit.	Flam. Gas 1: H220; Press. Gas: H280	1-10%
-----------	----------	--	-------------------------------------	-------

### Section 4: First aid measures

#### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Do not use hot water. If frostbite has occurred call a physician.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Not applicable.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious, check for breathing and apply artificial respiration if necessary. Consult a doctor.

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

**Skin contact:** There may be redness or whiteness of the skin in the area of exposure. Frost-bite may occur causing the affected area to become white and numb.

**Eye contact:** There may be severe pain. Corneal burns may occur. May cause permanent damage.

**Ingestion:** There may be irritation of the throat.

**Inhalation:** Inhalation may produce the following symptoms: Shortness of breath, dizziness, weakness, nausea, headache, narcosis, irregular cardiac activity. Asphyxia. May cause cardiac arrhythmia.

**Delayed / immediate effects:** May cause cardiac arrhythmia.

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

**Immediate / special treatment:** Not applicable.

### Section 5: Fire-fighting measures

Ametron International LLC, 16192 Coastal Highway Lewes, Delaware 19958 - USA.

[cont...]

# AMETRON

## R E F R I G E R A N T S

### 5.1. Extinguishing media

**Extinguishing media:** Alcohol resistant foam. Water spray. Carbon dioxide. Dry chemical powder. Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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

**Exposure hazards:** In combustion emits toxic fumes. Non flammable gas.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

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

**Personal precautions:** Refer to section 8 of SDS for personal protection details. Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point.

### 6.2. Environmental precautions

**Environmental precautions:** Stop release if safe to do so. Prevent from entering sewers, basements and work pits, or any place where the accumulation can be dangerous.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Material evaporates. Ventilate the area, especially low or enclosed places where heavy vapours might collect.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed. Store at a temperature not exceeding 45°C.

**Suitable packaging:** Must only be kept in original packaging.

### 7.3. Specific end use(s)

**Specific end use(s):** No data available.

## Section 8: Exposure controls/personal protection

Ametron International LLC, 16192 Coastal Highway Lewes, Delaware 19958 - USA.

# AMETRON

## REFRIGERANTS

### 8.1. Control parameters

#### Hazardous ingredients:

##### REFRIGERANT R134A

#### Workplace exposure limits:

#### Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	4240 mg/m <sup>3</sup>	-	-	-

##### PENTAFLUOROETHANE

EU	1000 ppm	-	-	-
----	----------	---	---	---

##### BUTANE

UK	1450 mg/m <sup>3</sup>	1810 mg/m <sup>3</sup>	-	-
----	------------------------	------------------------	---	---

### DNEL/PNEC Values

#### Hazardous ingredients:

##### REFRIGERANT R134A

##### PENTAFLUOROETHANE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	16444 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Inhalation	1753 mg/m <sup>3</sup>	Consumers	Systemic
PNEC	Fresh water	0.1 mg/l	-	-
PNEC	Fresh water sediments	0.6 mg/kg	-	-

### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency. Vapours are heavier than air and can cause suffocation by reducing the oxygen available for breathing.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses with side-shields. Safety goggles. Face-shield. Safety glasses.

**Skin protection:** Protective clothing.

### Section 9: Physical and chemical properties

Ametron International LLC, 16192 Coastal Highway Lewes, Delaware 19958 - USA.

# AMETRON

## REFRIGERANTS

### 9.1. Information on basic physical and chemical properties

<b>State:</b>	Liquified gas	<b>Flammability limits %: lower:</b>	None
<b>Colour:</b>	Colourless	<b>Flash point°C:</b>	Not applicable.
<b>Odour:</b>	Characteristic odour		
<b>Boiling point/range°C:</b>	-39.1		
<b>upper:</b>	None		
<b>Vapour pressure:</b>	9.835 Bar at 25oC		

### 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions. Stable at room temperature.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Hot surfaces. Sources of ignition. Flames.

### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Strong acids.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

**Hazardous ingredients:**

REFRIGERANT R134A

PENTAFLUOROETHANE

GASES	RAT	4H LC50	800000	ppmV
-------	-----	---------	--------	------

**Toxicity values:** No data available.

Ametron International LLC, 16192 Coastal Highway Lewes, Delaware 19958 - USA.



# AMETRON

## REFRIGERANTS

### Symptoms / routes of exposure

**Skin contact:** There may be redness or whiteness of the skin in the area of exposure. Frost-bite may occur causing the affected area to become white and numb.

**Eye contact:** There may be severe pain. Corneal burns may occur. May cause permanent damage.

**Ingestion:** There may be irritation of the throat.

**Inhalation:** Inhalation may produce the following symptoms: Shortness of breath, dizziness, weakness, nausea, headache, narcosis, irregular cardiac activity. Asphyxia. May cause cardiac arrhythmia.

**Delayed / immediate effects:** May cause cardiac arrhythmia.

### Section 12: Ecological information

#### 12.1. Toxicity

**Hazardous ingredients:**

REFRIGERANT R134A

#### 12.2. Persistence and degradability

**Persistence and degradability:** Not biodegradable.

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

#### 12.4. Mobility in soil

**Mobility:** No data available.

#### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

#### 12.6. Other adverse effects

**Other adverse effects:** Ozone Depletion Potential (ODP): 0 (R11 = 1) R417A Global Warming Potential (GWP): 2346 (CO<sub>2</sub>=1) Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

### Section 13: Disposal considerations

#### 13.1. Waste treatment methods

**Disposal operations:** Product evaporates.

**Recovery operations:** Consult manufacturer or supplier for information regarding recovery and recycling of the product. If recovery is not possible, incinerate at a licenced instalation.

**Waste code number:** 14 06 01

**Disposal of packaging:** Return to supplier.

Ametron International LLC, 16192 Coastal Highway Lewes, Delaware 19958 - USA.

# AMETRON

## R E F R I G E R A N T S

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

### Section 14: Transport information

#### 14.1. UN number

UN number: UN1078

#### 14.2. UN proper shipping name

Shipping name: REFRIGERANT GAS, N.O.S.  
(NORFLUANE; PENTAFLUOROETHANE)

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

Transport class: 2

#### 14.4. Packing group

#### 14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

#### 14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: C/E

Transport category: 3

### Section 15: Regulatory information

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

Specific regulations: Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

#### 15.2. Chemical Safety Assessment

### Section 16: Other information

#### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H220: Extremely flammable gas.

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

Ametron International LLC, 16192 Coastal Highway Lewes, Delaware 19958 - USA.




## R E F R I G E R A N T S

**Legal disclaimer:** Ametron Refrigerants Ltd believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated. Ametron Refrigerants expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

**Ametron International LLC, 16192 Coastal Highway Lewes, Delaware 19958 - USA.**

 [www.ametronint.com](http://www.ametronint.com)

 [sales@ametronint.com](mailto:sales@ametronint.com)

 +1(628) 800 7167