

**MATERIAL SAFETY DATA SHEET**

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Version : 6

Date : 26 / 6 / 2015

Supersedes : 9 / 1 / 2014

FRIONETT ACTIV' FOAM**104503****SECTION 1 Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier****Trade name** : FRIONETT ACTIV' FOAM**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant identified uses** : Active foam for small and medium refrigeration and air-conditioning systems cleaning**1.3. Details of the supplier of the safety data sheet**: DEHON SERVICE
26 Avenue du Petit Parc
94683 VINCENNES Cedex France
Tel : +33 (0) 1 43 98 75 00
Fax : +33 (0) 1 43 98 21 51**SUPPLIER :**: DEHON SERVICE
26 Avenue du Petit Parc
94683 VINCENNES Cedex France
Tel : +33 (0) 1 43 98 75 00
Fax : +33 (0) 1 43 98 21 51**DISTRIBUTOR :****Germany:**: Dehon Kälte-Fachvertriebs GmbH
Robert-Bosch-Strasse 14
40668 MEERBUSCH
Tél. : 00 49 2150 7073 0**Spain :**: Friogas sa
Poligono Industrial SEPES
Parcela 10
46500 SAGUNTO (Valencia)
Tél. : 00 34 9 6 266 36 32**Hungary :**: Climalife Hongrie Kft
Rét U.2
H - 2040 BUDAÖRS
Tél. : 00 36 23 431 660**Italy :**: Climalife
Supplied by Inventec Performance Chemicals Italia SRL
Via Pusterla n° 8
I-20013 Magenta (MI)
Tél. : 00 39 02 4840 1206**e-mail**

: ContactFDS@climalife.dehon.com

1.4 Emergency telephone number: EMERGENCY TELEPHONE NUMBER (24h/24) : + 33 (0) 1 72 11 00 03
Anti-poison Center : INRS/ORFILA (France) : +33 (0) 1 45 42 59 59
Anti-poison Centre (Belgium) : +32 70 245 245
Anti-poison Centre (Netherlands) : +31 30 274 8888
Anti-poison Centre (Spain) : +34 91 562 04 20
Anti-poison Centre (United Kingdom) : +44 870 600 6266
Anti-poison Centre (Switzerland) : 145 (from Switzerland) or +41 44 251 51 51
Poisons Information Centre (Hungary) : +36 80 201 199
National Institute of Public Health (Romania) : +40 21 3183606**DEHON SERVICE**26 Avenue du Petit Parc 94683 VINCENNES Cedex France
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FRIONETT ACTIV' FOAM
104503
SECTION 2 Hazards identification
2.1. Classification of the substance or mixture
2.1.1. Regulation (EC) No 1272/2008 (CLP)
Physical hazards : AEROSOLS 1 (H222; H229)

2.1.2 Directive EEC/67/548 or 1999/45/CE : F+; R12

2.2. Label elements
2.2.1 Labelling EC 1272/2008 (CLP)
Contains : Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides (CAS 68391-01-5)

Hazard pictograms

Signal words : Danger

Hazard statements : H222 : Extremely flammable aerosol
H229 : Pressurised container: May burst if heated.

Precautionary statements :

- **Prevention** : P210 : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 : Do not spray on an open flame or other ignition source
P251 : Pressurized container: Do not pierce or burn, even after use
 - **Response** : P301 + P310 : If swallowed, immediately call a doctor.
 - **Storage** : P410 + P412 : Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F
- Regulation (EU) N° 528/2012** : Contains : Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides (CAS 68391-01-5) : 1.98 g/l (TP02)
- 2.3. Other hazards** : None under normal conditions

SECTION 3 Composition/information on ingredients
3.1./3.2. Substance / Preparation : Preparation

Components contributing to the hazard :

Substance name	Contents	CAS No	EC No	Index No	Ref REACH	Classification
n-Butane	: 2.5 to 10 %	106-97-8	203-448-7	601-004-00-0	01-2119474691-32	F+; R12 Flam. Gas 1;H220 Liquefied gas;H280
Propane	: < 2.5 %	74-98-6	200-827-9	601-003-00-5	01-2119486944-21	F+; R12 Flam. Gas 1;H220 Liquefied gas;H280
Isobutane	: < 2.5 %	75-28-5	200-857-2	601-004-00-0	01-2119485395-27	F+; R12 Flam. Gas 1;H220 Liquefied gas;H280
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	: < 1 %	68391-01-5	269-919-4	----	----	Xn; R22 C; R34 N; R50 Acute Tox. 3 (Oral);H301 Skin Corr. 1B;H314 Eye Dam. 1;H318 Aquatic Acute 1;H400

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SECTION 3 Composition/information on ingredients (continued)

Substance name	Contents	CAS No	EC No	Index No	Ref REACH	Classification
Butadiene 1,3	< 0.1 %	106-99-0	203-450-8	601-013-00-X	----	F+; R12 Carc. Cat. 1; R45 Muta. Cat. 2; R46 Flam. Gas 1;H220 Carc. 1A;H350 Muta. 1B;H340 Liquefied gas;H280

SECTION 4 First aid measures

4.1. Description of first aid measures

- Inhalation** : Move the affected person away from the contaminated area and into the fresh air
If the person feels unwell :
Call a doctor immediately
- Skin contact** : Immediately remove contaminated clothing or footwear
Wash immediately with plenty of soap and water
If case of redness or irritation, call a doctor
- Eye contact** : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum)
If irritation persists, consult an eye specialist
- Ingestion** : Do not give anything to drink. Do not induce vomiting.
Rinse mouth out with water
If swallowed, seek medical advice immediately and show this container or label.
- 4.2. Most important symptoms and effects, both acute and delayed** : No information available
- 4.3. Indication of any immediate medical attention and special treatment needed** : No information available

SECTION 5 Fire-fighting measures

5.1. Extinguishing media

- Suitable extinguishing media** : Carbon dioxide (CO₂)
Specific powders
Foam
Water spray

- Unsuitable extinguishing media** : Strong water jet

5.2. Special hazards arising from the substance or mixture

- Specific hazards** : Heating will cause a rise in pressure with a risk of bursting.
Thermal decomposition generates :
Carbon oxides (CO, CO₂)

5.3. Advice for firefighters

- Specific fire fighting methods** : Do not dispose of fire-fighting water in the environment
Cool down the containers exposed to heat with a water spray
- Protection of fire-fighters** : Impermeable protective equipment
Self-contained breathing apparatus

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SECTION 6 Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures** : Evacuate the danger area.
Only qualified personnel equipped with suitable protective equipment may intervene
Remove all sources of ignition
Do not breathe vapours
- 6.2. Environmental precautions** : Contain the spilled material by bunding
Do not discharge into drains or rivers
- 6.3. Methods and material for containment and cleaning up**
- **Recovery** : Absorb spillage with:
- earth or sand
- inert absorbent material.
- **Cleaning/decontamination** : Wash contaminated area with large amounts of water
- **Disposal** : Dispose of contaminated materials in accordance with current regulations.
- 6.4 Reference to other sections** : For further information refer to section 8 "Exposure controls/personal protection"

SECTION 7 Handling and storage

- 7.1. Precautions for safe handling**
- Technical measures** : Ventilation
Material and equipment suitable for use under explosive conditions
Use non-sparking tools
- Precautions** : Avoid the build-up of electrostatic charge
Work in a well-ventilated area
Smoking is forbidden
- Safe handling advice :** : Do not spray on a naked flame or any incandescent material
- Industrial hygiene** : Always wash hands after handling the product
Do not eat, drink or smoke during use
- 7.2. Conditions for safe storage, including any incompatibilities**
- **Recommended** : Store :
- the container tightly closed
- in a cool, well-ventilated area
- away from any source of ignition
- away from any source of heat
- away from direct sunlight
- at temperature not exceeding 50 °C
- Incompatible products** : Strong bases
Strong oxidizing agents
Oxidizing materials
- Packaging materials**
- **Recommended** : Original packaging
- 7.3. Specific end use(s)** : No data

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SECTION 8 Exposure controls/personal protection
8.1. Control parameters
Engineering measures : Ensure good ventilation of the work station

8.1.1. Occupational Exposure Limits :

- n-Butane : France : LEP - VME (8h; mg/m³) : 1900
- n-Butane : France : LEP - VME (8h; ppm) : 800
- n-Butane : United Kingdom : WEL - TWA (8h; mg/m³) : 1450
- n-Butane : United Kingdom : WEL - TWA (8h; ppm) : 600
- n-Butane : United Kingdom : WEL - STEL (15min; mg/m³) : 1850
- n-Butane : United Kingdom : WEL - STEL (15min; ppm) : 750
- n-Butane : Germany : MAK - TWA (8h; mg/m³) : 2400
- n-Butane : Germany : MAK - TWA (8h; ppm) : 1000
- n-Butane : Germany : MAK - STEL (15min; mg/m³) : 9600
- n-Butane : Germany : MAK - STEL (15min; ppm) : 4000
- n-Butane : Hungary : ÁK - TWA (8h; mg/m³) : 2350
- n-Butane : Hungary : ÁK - STEL (15min; mg/m³) : 9400
- n-Butane : USA (NIOSH) : REL - TWA (8h; mg/m³) : 1900
- n-Butane : USA (NIOSH) : REL - TWA (8h; ppm) : 800
- Propane : USA (OSHA) : PEL - TWA (8h; mg/m³) : 1800
- Propane : USA (OSHA) : PEL - TWA (8h; ppm) : 1000
- Propane : Germany : MAK - TWA (8h; mg/m³) : 1800
- Propane : Germany : MAK - TWA (8h; ppm) : 1000
- Propane : Germany : MAK - STEL (15min; mg/m³) : 7200
- Propane : Germany : MAK - STEL (15min; ppm) : 4000
- Propane : Belgium : GWBB - TWA (8h; ppm) : 1000
- Propane : Romania : OEL - VME (8h; ppm) : 778
- Propane : Romania : OEL - VME (8h; mg/mc) : 1400
- Propane : Romania : OEL - VLE (15min; mg/mc) : 1800
- Propane : Romania : OEL - VLE (15min; ppm) : 1000
- Isobutane : Germany : MAK - TWA (8h; mg/m³) : 2400
- Isobutane : Germany : MAK - TWA (8h; ppm) : 1000
- Isobutane : Germany : MAK - STEL (15min; mg/m³) : 9600
- Isobutane : Germany : MAK - STEL (15min; ppm) : 4000
- Butadiene 1,3 : United Kingdom : WEL - TWA (8h; mg/m³) : 22
- Butadiene 1,3 : United Kingdom : WEL - TWA (8h; ppm) : 10
- Butadiene 1,3 : Germany : MAK - TWA (8h; mg/m³) : 5
- Butadiene 1,3 : Germany : MAK - TWA (8h; ppm) : 2
- Butadiene 1,3 : Hungary : ÁK - STEL (15min; mg/m³) : 1
- Butadiene 1,3 : Netherlands : MAC - TWA (8h; mg/m³) : 46.2
- Butadiene 1,3 : Belgium : GWBB - TWA (8h; mg/m³) : 4.5
- Butadiene 1,3 : Belgium : GWBB - TWA (8h; ppm) : 2
- Butadiene 1,3 : USA (OSHA) : PEL - TWA (8h; ppm) : 1
- Butadiene 1,3 : USA (OSHA) : PEL - STEL (15min; ppm) : 15
- Butadiene 1,3 : Romania : OEL - VME (8h; mg/mc) : 22
- Butadiene 1,3 : Romania : OEL - VME (8h; ppm) : 10

8.2. Exposure controls
Personal protection :

- **Respiratory protection** : In the event of insufficient ventilation: Mask with AX canister
In a confined area : Self-contained breathing apparatus
- **Hand protection** : Nitrile-rubber protective gloves
- **Eye protection** : Sealed safety goggles
- **Skin protection** : Majority cotton antistatic clothing

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SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

9.1.a. Appearance

Physical state : Liquid (Aerosol)

Colour : Colourless

9.1.b. Odour : green freshness

9.1.c. Odour threshold : No information available

9.1.d. pH : Weak base

9.1.e. Melting point / Freezing point : No data

9.1.f. Initial boiling point - boiling range : ≤ 35 °C

9.1.g. Flash point : < 0 °C

9.1.h. Evaporation rate : No data

9.1.i. Flammability : Extremely flammable aerosol

9.1.j. Explosion limits (lower - upper)

Explosion limits - lower : 2,1 % (volume)

Explosion limits - upper : 16 % (volume)

9.1.k. Vapour pressure : 4,1 Bar absolute at 20 °C

9.1.l. Vapour density : No information available

9.1.m. Density : < 1 g/cm³ at 20 °C

9.1.n. Solubility

-in water : Insoluble

9.1.o. Partition coefficient : n-octanol / water : No information available

9.1.p. Auto-ignition temperature : No information available

9.1.q. Thermal decomposition : No information available

9.1.r. Viscosity : No information available

9.1.s. Explosive Properties : Not explosive material according to EC criteria

9.1.t. Oxidising properties : Non oxidizing material according to EC criteria

9.2. Other information : -

SECTION 10 Stability and reactivity

10.1. Reactivity : No information available

10.2. Chemical stability : Stable at ambient temperature and under normal conditions of use

10.3. Possibility of hazardous reactions : At high temperatures : Toxic gases are released :
Carbon oxides (CO, CO₂)
Nitrogen oxides

10.4. Conditions to avoid : - high temperatures
- flames or sparks
Avoid :
Heat
Freezing

10.5. Incompatible materials : No information available

10.6. Hazardous decomposition products : On thermal decomposition (pyrolysis), releases :
Carbon oxydes (CO, CO₂)

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SECTION 10 Stability and reactivity (continued)
SECTION 11 Toxicological information
11.1. Information on toxicological effects

• **Acute toxicity** : No information available

On ingredients

n-Butane : Rat inhalation LC50 [mg/l/4h] : 658

Isobutane : Rat inhalation LC50 [mg/l/4h] : 658

• **Skin corrosion/irritation** : No information available

• **Serious eye damage/irritation** : May cause slight temporary irritation to ocular mucous membranes

• **Respiratory or skin sensitisation** : No information available

• **Germ cell mutagenicity** : No information available

• **Carcinogenicity** : No information available

• **Reproductive toxicity** : No information available

• **STOT-single exposure** : No information available

• **STOT-repeated exposure** : No information available

• **Aspiration hazard** : No information available

SECTION 12 Ecological information

12.1. Toxicity : No information available
Do not allow the product, as is, to spread into the environment

Effects on the aquatic environment
On ingredients

n-Butane : 48 Hour - EC50 - Daphnia magna [mg/l] : 14.22

: 96 Hours - LC50 - Fish [mg/l] : 24.11

Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides : 48 Hours - LC50 - Daphnia magna [mg/l] : 0.016

12.2. Persistence and degradability

Persistence : n-butane :
Half-life in water : <2.6 d
Half-life in air : 3.2 d
isobutane :
Half-life in air : 6.9 d

12.3. Bioaccumulative potential

Octanol/water partition coefficient : n-butane / isobutane : Not potentially bioaccumulable.

12.4. Mobility in soil : No information available

12.5. Results of PBT and vPvB assessment : No information available

12.6. Other adverse effects : No information available

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SECTION 13 Disposal considerations
13.1. Waste treatment methods
WASTE FROM PRODUCT :
Destruction/Disposal : Dispose of in accordance with relevant local regulations

CONTAMINATED PACKAGING :
Destruction/Disposal : Empty the packaging completely prior to disposal
 Dispose of at an licensed site

NOTE : The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal

SECTION 14 Transport information
14.1. UN number : UN 1950

14.2. UN proper shipping name : AEROSOLS

14.3. Transport hazard class(es)
Rail/road (RID/ADR) : Class : 2

Sea transport : 2.1

Air transport (OACI/IATA) : 2.1

Hazard Label(s) : 2.1

14.4. Packing group : -

14.5. Environmental hazards : Marine pollutant : NO
 Not classified as dangerous to the aquatic environment

14.6. Special precautions for user
Rail/road (RID/ADR) : Classification code : 5F
 Hazard identification number : -
 Tunnel restriction code : (D)
 Limited quantities : 1 L

Sea transport : EmS Nr : F-D, S-U
 Segregation group : -

Air transport (OACI/IATA) : Cargo aircraft:
 Packing instruction: 203
 Quantity: 150 kg
 Passenger aircraft:
 Packing instruction: 203
 Quantity: 75 kg

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable

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SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.

France : ICPE Classification : applicable
Germany : : WGK (Water-endangerment class) : 0
REGULATION EC No 648/2004 : Contains :
- Phosphates : < 5 %
- Non-ionic surfactants < 5 %
- aliphatic hydrocarbons : 5 % or over but less than 15 %
- Disinfectants
- Perfumes
- d-Limonene

15.2. Chemical safety assessment : No information available

SECTION 16 Other information

Further information : Product for professional use only
For more information regarding the use of this product, please refer to our technical information or contact the sales department in your region
This safety data sheet has been written in conformity with the regulation (UE) 453/2010.

Text of R-Phrases in § 3 : R12 : Extremely flammable.
R22 : Harmful if swallowed.
R34 : Causes burns.
R45 : May cause cancer.
R46 : May cause heritable genetic damage.
R50 : Very toxic to aquatic organisms.

Text of H-Phrases in § 3 : H220 - Extremely flammable gas
H280 - Contains gas under pressure; may explode if heated
H301 - Toxic if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H340 - May cause genetic defects
H350 - May cause cancer
H400 - Very toxic to aquatic life

*** Update** : All chapters have been modified since the previous version

This sheet complements the technical sheets but does not replace them. The information given is based on our knowledge of the product, at the time of publication. It is given in good faith.

Besides, the attention of the user is drawn to the possible risks incurred by using the product for any other use than that for which it was intended.

In no way does this exempt the user from knowing and applying all the regulations controlling his activity. He alone will take on the responsibility for taking the precautions involved by the use of the product.

The aim of all the mandatory regulations mentioned is just to help the user to fulfil his obligations regarding the use of hazardous products.

This information must not be considered exhaustive. It does not exempt the user from ensuring that other obligations than those mentioned could apply, related to the storage and use of the product, this being his sole responsibility.

End of document

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