



SAFETY DATA SHEET FREEZER 200ML WITH HFO

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name FREEZER 200ML WITH HFO
Product No. FREH
EFREH200
ZE

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

Identified uses Office Equipment Cleaning Product
Uses Advised Against At this moment in time we do not have information on use restrictions. They will be included in this safety data sheet when available

1.3. Details of the supplier of the safety data sheet

Supplier: ELECTROLUBE. A division of HK
WENTWORTH LTD
ASHBY PARK, COALFIELD WAY,
ASHBY DE LA ZOUCH, LEICESTERSHIRE
LE65 1JF
UNITED KINGDOM
+44 (0)1530 419600
+44 (0)1530 416640
info@hkw.co.uk

Supplied by:
RS Components Ltd,
Birchington Road, Corby, Northants, NN17 9RS.
Tel: +44 (0) 1536 402888 (8am to 8pm)
Email: technical.help@rs-components.com

1.4. Emergency telephone number

+44 (0)1530 419600 between 8.30am - 5.00pm Mon – Fri

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (67/548/EEC) Not classified.

2.2. Label elements

Risk Phrases

NC Not classified.

Safety Phrases

A1 Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

2.3. Other hazards

Contact with liquid may cause cold burns / frostbite.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE	80-100%
CAS-No.: 29118-24-9	EC No.: 471-480-0
Classification (EC 1272/2008) Liquef. Gas - H280	Classification (67/548/EEC) Not classified.

FREEZER 200ML WITH HFO

The Full Text for all R-Phrases and Hazard Statements is Displayed in Section 16

Composition Comments

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation.

Move the exposed person to fresh air at once. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

DO NOT INDUCE VOMITING! Rinse mouth thoroughly.

Skin Contact

Wash the skin immediately with soap and water. Get medical attention if any discomfort continues. Contact with gas may cause frostbite

Eye Contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

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

Inhalation.

Vapours may cause headache, fatigue, dizziness and nausea.

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

Treat symptomatically

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing Media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Hazardous Combustion Products

Fire creates: Hydrogen fluoride (HF).

Unusual Fire & Explosion Hazards

Aerosol cans may explode in a fire.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk.

Protective Measures In Fire

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Not relevant considering the small amounts used.

6.3. Methods and material for containment and cleaning up

Stop leak if possible without risk. DO NOT touch spilled material! Ventilate well.

6.4. Reference to other sections

See section 11 for additional information on health hazards. Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

7.2. Conditions for safe storage, including any incompatibilities

Store at moderate temperatures in dry, well ventilated area.

FREEZER 200ML WITH HFO

7.3. Specific end use(s)**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters**

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE	SUP	1000 ppm				

8.2. Exposure controls**Engineering Measures**

Provide adequate ventilation.

Respiratory Equipment

In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment.

Hand Protection

Protective gloves must be used if there is a risk of direct contact or splash. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Use protective gloves made of: Viton rubber (fluor rubber). Gloves should conform to EN374

Eye Protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene Measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. **DO NOT SMOKE IN WORK AREA!**

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance	Aerosol Liquefied Gas
Colour	Colourless
Odour	Slight odour Characteristic
Initial Boiling Point and Boiling Range:	-19
Relative Density	1.12 @ 21.1 °C
Vapour Pressure	0.4192 kPa @ 20 °c
Evaporation Rate	4
Flash Point (°C)	Not applicable. does not flash
Auto Ignition Temperature (°C)	368

9.2. Other information

Volatility Description	Highly volatile.
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SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

No information available

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions**Hazardous Polymerisation**

Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with acids and alkalis.

10.5. Incompatible materials

FREEZER 200ML WITH HFO**Materials To Avoid**

Alkali metals.

10.6. Hazardous decomposition products

Fire or high temperatures create: Carbon monoxide (CO). Hydrogen fluoride (HF). Carbonyl fluoride

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Other Health Effects**

This substance has no evidence of carcinogenic properties.

Acute Toxicity (Oral LD50)

Not applicable.

Acute Toxicity (Dermal LD50)

No information available.

Acute Toxicity (Inhalation LC50) > 965 mg/l (vapours) Rat 4 hours**General Information**

No specific health warnings noted.

Inhalation

High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

SECTION 12: ECOLOGICAL INFORMATION**12.1. Toxicity****Acute Toxicity - Fish** NOEC 96 hours > 117 mg/l Cyprinus carpio (Common carp)**Acute Toxicity - Aquatic Invertebrates** EC50 48 hours > 160 mg/l Daphnia magna**Acute Toxicity - Aquatic Plants** NOEC 72 hours > 170 mg/l Selenastrum capricornutum**12.2. Persistence and degradability****Degradability:**

The product is not readily biodegradable.

12.3. Bioaccumulative potential**Bioaccumulative Potential:**

No data available on bioaccumulation.

12.4. Mobility in soil**Mobility:**

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB Substances.

12.6. Other adverse effects

The product contains volatile, organic compounds which have a photochemical ozone creation potential.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Empty containers must not be burned because of explosion hazard. Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION**14.1. UN number****UN No. (ADR/RID/ADN)** 1950**UN No. (IMDG)** 1950**UN No. (ICAO)** 1950**14.2 UN Proper shipping name****Proper Shipping Name** AEROSOLS

FREEZER 200ML WITH HFO**14.3 Transport hazard class(es)**

ADR/RID/ADN Class	2
ADR/RID/ADN Class	Class 2: Gases
ADR Label No.	2.2
IMDG Class	2.2
ICAO Class/Division	2.2
Transport Labels	

**14.4. Packing group**

ADR/RID/ADN Packing group	N/A
IMDG Packing group	N/A
ICAO Packing group	N/A

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

EMS	F-D, S-U
Tunnel Restriction Code	(E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Uk Regulatory References**

Chemicals (Hazard Information & Packaging) Regulations.

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

Environmental Listing

Rivers (Prevention of Pollution) Act 1961. Control of Pollution (Special Waste Regulations) Act 1980.

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

System of specific information relating to Dangerous Preparations. 2001/58/EC.

Dangerous Preparations Directive 1999/45/EC.

Dangerous Substance Directive 67/548/EEC.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

FREEZER 200ML WITH HFO

Issued By	Pawel Zmarzly
Revision Date	JUNE 2011
Revision	0
SDS No.	13180
Risk Phrases In Full	
NC	Not classified.
Hazard Statements In Full	
H280	Contains gas under pressure; may explode if heated.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.