



SAFETY DATA SHEET
MINIMAL CHARGING FREEZER

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME MINIMAL CHARGING FREEZER
PRODUCT NO. EMCF200/400
APPLICATION Manufacture of electrical equipment
SUPPLIER ELECTROLUBE. A division of
 HK WENTWORTH LTD
 KINGSBURY PARK, MIDLAND
 ROAD
 SWADLINCOTE
 DERBYSHIRE, DE11 0AN
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 +44(0)1283 222 111
 +44(0)1283 550 177
 info@hkw.co.uk
EMERGENCY TELEPHONE +44(0)1283 222 111 between 8.30 am - 5.00pm Mon - Fri

2 HAZARDS IDENTIFICATION

Not regarded as a health or environmental hazard under current legislation.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
1,1,1,2-TETRAFLUOROETHANE R134A	212-377-0	811-97-2	80-100%	-
1,1,DIFLUOROETHANE R152A	200-866-1	75-37-6	10-30%	F+,R12.

The Full Text for all R-Phrases are Displayed in Section 16

COMPOSITION COMMENTS

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

4 FIRST-AID MEASURES

NOTES TO THE PHYSICIAN

Treat symptomatically

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.

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.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

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

SPECIAL FIRE FIGHTING PROCEDURES

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

MINIMAL CHARGING FREEZER

UNUSUAL FIRE & EXPLOSION HAZARDS

Aerosol cans may explode in a fire.

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEAN UP METHODS

Absorb in vermiculite, dry sand or earth and place into containers.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

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

STORAGE PRECAUTIONS

Store at moderate temperatures in dry, well ventilated area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

No particular ventilation requirements.

RESPIRATORY EQUIPMENT

Respiratory protection must be used if air contamination exceeds acceptable level.

HAND PROTECTION

Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

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!

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Aerosol Liquid		
COLOUR	Colourless		
ODOUR	Characteristic		
VOLATILITY DESCRIPTION	Volatile.		
SOLUBILITY	Insoluble in water		
BOILING POINT (°C)	-26.5	RELATIVE DENSITY	1.13 @ 25 °c
BULK DENSITY	1130	VAPOUR PRESSURE	4490 Pa @ 20 °c
AUTO IGNITION TEMPERATURE (°C)	> 750		

10 STABILITY AND REACTIVITY

CONDITIONS TO AVOID

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

HAZARDOUS DECOMPOSITION PRODUCTS

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

11 TOXICOLOGICAL INFORMATION

GENERAL INFORMATION

No specific health warnings noted.

INHALATION

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

MINIMAL CHARGING FREEZER

Other Health Effects

This substance has no evidence of carcinogenic properties.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Not regarded as dangerous for the environment.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

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

14 TRANSPORT INFORMATION



UK ROAD CLASS	2		
PROPER SHIPPING NAME	AEROSOLS		
UN NO. ROAD	1950	UK ROAD PACK GR.	N/A
ADR CLASS NO.	2	ADR CLASS	Class 2: Gases
ADR PACK GROUP	N/A	ADR LABEL NO.	2.2
CEFIC TEC(R) NO.	20G5A,	RID CLASS NO.	2
RID PACK GROUP	N/A	UN NO. SEA	1950
IMDG CLASS	2.2	IMDG PAGE NO.	9022
IMDG PACK GR.	N/A	EMS	F-D, S-U
MFAG	See Guide	MARINE POLLUTANT	No.
UN NO. AIR	1950	AIR CLASS	2.2
AIR PACK GR.	N/A		

15 REGULATORY INFORMATION

RISK PHRASES

NC Not classified.

SAFETY PHRASES

A1 Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
A2 Do not spray on a naked flame or any incandescent material.
S2 Keep out of the reach of children
S23 Do not breathe vapour/spray.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations.

The Control of Substances Hazardous to Health Regulations 1988.

ENVIRONMENTAL LISTING

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

EU DIRECTIVES

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

Dangerous Preparations Directive 1999/45/EC.

Dangerous Substance Directive 67/548/EEC.

MINIMAL CHARGING FREEZER

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.

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

16 OTHER INFORMATION

REVISION COMMENTS

Revised in accordance with CHIP3 and EU Directives 1999/45/EC and 2001/58/EC

ISSUED BY

Helen O'Reilly

REVISION DATE NOVEMBER 2008

REV. NO./REPL. SDS 4

GENERATED

SDS NO. 10527

RISK PHRASES IN FULL

R12 Extremely flammable.

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.