SAFETY DATA SHEET
MINIMAL CHARGING FREEZER

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

1.1. Product identifier

Product name MINIMAL CHARGING FREEZER

Product No. MCF, EMCF200, EMCF400, ZE

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

Identified uses Manufacture of electrical equipment

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 1JR
UNITED KINGDOM
+44 (0)1530 419600
+44 (0)1530 416640
info@hkw.co.uk

1.4. Emergency telephone number

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

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Not classified.
Environment	Not classified.

Classification (1999/45/EEC) Not classified.

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

Human health

Contact with liquefied gas might cause frostbites, in some cases with tissue damage.

Physical and Chemical Hazards

Aerosol containers can explode when heated, due to excessive pressure build-up. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited.

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008

No pictogram required.

Precautionary Statements

P102	Keep out of reach of children.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P251	Pressurized container: Do not pierce or burn, even after use.
P260	Do not breathe vapour/spray.
P410+412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Methylal	**10-30%**
CAS-No.: 109-87-5	**EC No.:**
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xi;R36/38.

1,1,DIFLUOROETHANE R152A	**10-30%**
CAS-No.: 75-37-6	**EC No.: 200-866-1**
Classification (EC 1272/2008) Flam. Gas 1 - H220 Press. Gas, Liquefied - H280	Classification (67/548/EEC) F+;R12.

QUARTENARY AMMONIUM ETHOSULPHATE	**1-5%**
CAS-No.: 68308-64-5	**EC No.:**
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xn;R22. C;R34.

The Full Text for all R-Phrases and Hazard Statements are 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.

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

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

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards

Aerosol cans may explode in a fire.

Specific hazards

Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

5.3. Advice for firefighters

Special Fire Fighting Procedures

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

Protective equipment for fire-fighters

Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of vapours and contact with skin and eyes.

6.2. Environmental precautions

Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in section 13.

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.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.2. Exposure controls

Process conditions

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.

Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment

Respiratory protection must be used if air contamination exceeds acceptable level. Respirators should conform to Australian Standard AS 1716

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 hands 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. Liquid
Colour	Colourless.
Odour	Characteristic.
Solubility	Insoluble in water
Initial boiling point and boiling range (°C)	-26.5 (-15.7 F)
Relative density	1.13 @ 25 °c (77 F)
Bulk Density	1130
Vapour pressure	4490 Pa @ 20 °c (68 F)
Auto Ignition Temperature (°C)	> 750 (1382 F)

9.2. Other information

Volatility Description	Volatile

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Not available.

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

Materials To Avoid

No specific, or groups of materials are likely to react to produce a hazardous situation.

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

Toxicological information

No information available.

Other Health Effects

This substance has no evidence of carcinogenic properties.

General information

No specific health warnings noted.

Inhalation

High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting. Move the exposed person to fresh air at once.

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.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Not regarded as dangerous for the environment.

12.1. Toxicity

12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

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

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Do not puncture or incinerate even when empty.

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

General	This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG. These provisions allow transport of aerosols of less than 1litre packed in cartons of less than 30kg gross to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported as Limited Quantities. Aerosols not so packed must show the following

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

14.3. Transport hazard class(es)

ADR/RID/ADN Class	2.2

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

Not applicable.

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 relevant

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

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.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

15.2. Chemical Safety Assessment

SECTION 16: OTHER INFORMATION

Issued By	Helen O'Reilly
Revision Date	APRIL 2013
Revision	6

SDS No.	10527
Risk Phrases In Full	
R34	Causes burns.
R12	Extremely flammable.
R22	Harmful if swallowed.
R36/38	Irritating to eyes and skin.
NC	Not classified.
Hazard Statements In Full	
H280	Contains gas under pressure; may explode if heated.
H220	Extremely flammable gas.