SAFETY DATA SHEET

fluorochem.

1. Identification of Substance / Mixture

Product Identifier

1.1.2 Product Name Cyclopropylamine

1.1.2 Other Names

1.1.1 Product Code F003712 1.1.3 CAS 765-30-0 1.1.4 MDL MFCD00001301

1.1.5 EINECS 212-142-2

1.1.6 REACH Registration Number

1.2.1 Relevant Uses For research and development purposes only.

1.2.2 Uses Advised Against No uses advised against.

1.3 Supplier Details

1.3.1 Company Fluorochem Ltd

1.3.2 Address Unit 14, Graphite Way

Hadfield

Glossop Derbys. SK13 1QH

United Kingdom 01457 860111

1.3.4 Email sds@fluorochem.co.uk

+44 20 3807 3798 1.4.1 Emergency Telephone

2. Hazards Identification

2.1.1 Classification

1.3.3 Telephone

Acute Tox. 4 Eye Dam. 1 Skin Corr. 1B Skin Sens. 1

2.2.1 Signal Word

Flam. Liq. 2

Danger

2.2.2 Pictograms





GHS02

2.2.3 Hazards

H225 Highly flammable liquid and vapour. H302+H332 Harmful if swallowed or if inhaled. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage.

2.2.4 Precautions

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P241.1 Use explosion-proof equipment.

P242 Use non-sparking tools

P243 Take action to prevent static discharges.

P260.1 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area

P280.4 Wear protective gloves/protective clothing and eye/face protection. P301+P310.1 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353.1 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P310.1 Immediately call a POISON CENTER/doctor.

P321 Specific treatment.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention

P342+P311.1 If experiencing respiratory symptoms: Call a POISON CENTER/doctor. P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P370+P378.4 In case of fire: Use sand, extinguishing powder or alcohol-resistant foam to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501.3 Dispose of contents/container to hazardous waste disposal.

2.2.5 Other Classification Hazards

3. Composition of Ingredients

SUBSTANCE

3.1.1 Name 3.1.2 CAS Einecs 3.1.3 Composition Hazards

Cyclopropylamine 765-30-0 212-142-2 H225 Flam. Liq. 2 H302+H332 Acute Tox. 4 H314 Skin Corr. 1B H317 Skin Sens. 1 H318 Eye Dam. 1

4. First Aid Measures

4.1.1 Eve contact Where Diphoterine is not available, rinse eyes with copious amounts of water for at least 20 minutes. Protect

uninjured eye. Remove contact lenses if present and easy to do. Continue rinsing and seek immediate medical

attention.

4.1.2 Ingestion If swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical

4.1.3 Inhalation Remove person to fresh air and keep comfortable for breathing. Immediately seek medical attention. If breathing is

irregular or stopped, administer artificial respiration

4.1.4 Skin Contact Where Diphoterine is not available, wash immediately with plenty of water and soap. Remove contaminated clothing

immediately. Immediately seek medical attention.

4.1.5 General Advice No additional advice 4.2.1 Most Important Symptoms and Effects Severe burns may occur.

4.3.1 Immediate First Aid Measures No special immediate treatment required

5. Fire Fighting Measures

5.1.1 Suitable Fire Extinguishing Media Use sand, extinguishing powder or alcohol resistant foam to extinguish fire.

5.1.2 Unsuitable Fire Extinguishing Media No known unsuitable media

5.2.1 Special Hazards Thermal decomposition can lead to release of irritating gases and vapours. 5.3.1 Advice for Fire Fighters As in any fire, wear self-contained breathing apparatus and full protective gear.

Accidental Release Measures

6.1.1 Personal Precautions Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate

ventilation. Keep personnel away from spill/leak

6.2.1 Environmental Precautions Prevent further leakage if safe to do so. Prevent product from entering drains. Do not let product enter waterways or

sewer systems. Discharge into the environment must be avoided.

6.3.1 Containment - Methods and Materials

Absorb the spilled material with an inert absorbent (e.g. sand, silica gel, rag, vermiculite) before transferring into an airtight container. Remove all sources of ignition. Dispose of appropriately according to local regulations.

6.4.1 Referenced SDS Sections

For personal protection see section 8, For disposal see section 13,

Handling and Storage

Personal Precautions

7.1.1 Safe Handling Wear appropriate personal protective equipment. Use only under a chemical fume hood. Keep away from heat/

> sparks/open flame/hot surfaces. Take measures to prevent the build-up of electrostatic charge. Ensure adequate exhaust ventilation, especially if dust, aerosol or fumes will be generated. Avoid contact with skin, eyes and clothing.

For precautions see section 2.2

7.1.2 Protection Against Explosion and Fire

Where possible, use anti static and spark proof equipment when handling.

7.1.3 General Occupational Hygiene

Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after use. Do not eat,

drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

Conditions for Safe Storage and Incompatabilities

7.2.1 Managing Storage Risks Keep container tightly closed and upright. Store in a cool, dry and well-ventilated place.

7.2.2 Storage Controls Keep container tightly closed in a cool area away from sunlight or heat sources. 7.2.3 Maintaining Integrity Keep container tightly closed in a cool area away from sunlight or heat sources.

7.2.4 Other Advice No other specific advice available.

7.3.1 Specific End Use(s) No specific end uses are advised. The products supplied are for research purposes only.

8. Exposure Controls / Personal Protection

8.1.1 Control Parameters

8.2.1 Engineering Measures Use only under a chemical fume hood ensuring adequate ventilation, especially in confined areas. Use explosion-

proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the

8.2.2 Face Protection Wear tightly fitting safety googles which adhere to European standard EN 166. Ensure eye bath is to hand.

8.2.3 Hand Protection Handle with impermeable gloves. Inspect gloves before use. Gloves must satisfy the specifications of EU Directive

89/686/EEC and the standard EN374 derived from it. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with

applicable laws and good laboratory practices. Wash and dry hands.

8.2.4 Skin Protection Wear appropriate protective clothing ensuring all skin is covered. Wear safety shoes that meet at least S1 standards.

The type of protective equipment must be selected according to the concentration and amount of the dangerous

substance at the specific workplace.

Product should be handled in a fume cupboard with adequate extraction. No respiratory equipment is needed under 8.2.5 Respiratory Protection

normal use conditions.

8.2.6 Hygiene Protection Ensure hair or skin particles cannot enter the chemical container.

Avoid discharge into the environment, see section 6.2. 8.2.7 Environment Exposure Controls

9. Physical and Chemical Properties

9.1.1 State Liquid

9.1.2 Appearance No data available No data available 9.1.4 Odour Threshold No data available. 9.1.5 pH No data available.

9.1.6 Melting Point / Freezing Point -35.39°C

9.1.7 Initial Boiling Point 50.5°C at 760mmHg 9.1.8 Boiling Range No data available.

9.1.9 Flash Point 1°C

9.1.10 Evaporation Rate No data available. 9.1.11 Flammability No data available 9.1.12 Upper / Lower Flammability or No data available.

Explosion Limits

9.1.16 Solubility

148 mmHg at 25°C 9.1.13 Vapour Pressure 9.1.14 Vapour Density No data available. 9.1.15 Relative Density 0.824 g/cm3 at 20°C 1000 g/L at 25°C in Water 9.1.17 Partition Coefficient 0.07 9.1.18 Auto Ignition Temperature 275°C

9.1.19 Decomposition Temperature No data available. 9.1.20 Viscosity No data available. 9.1.21 Explosive Properties No data available 9.1.22 Oxidising Properties No data available

9.2.1 Other information No additional information available

10. Stability and Reactivity

10.1.1 Reactivity No known reactivity, based on information available. 10.2.1 Stability Stable under recommended storage conditions.

10.3.1 Possibility of Hazardous Reactions None under normal storage conditions.

10.4.1 Conditions To Avoid Heat, sparks, open flames, sources of ignition. Exposure to moisture.

10.5.1 Incompatible Materials Strong oxidising agents. 10.6.1 Hazardous Decomposition Products No Data Available.

11. Toxicology Information

11.1.1 Acute Toxicity Oral LD50, Rat, 545mg/kg Inhalation LC50, Rat, 10.5mg/l/4 h

11.1.2 Skin Corrosion / Irritation Strong corrosive effect on skin and mucous membranes.

11.1.3 Serious Eye Damage / Irritation Causes serious eye damage.

11.1.4 Respiratory or Skin Sensitisation May cause an allergic skin reaction.

11.1.5 Germ Cell Mutagenicity No Toxicology data available for this product. 11.1.6 Carcinogenicity No Toxicology data available for this product. 11.1.7 Reproductive Toxicity No Toxicology data available for this product. 11.1.8 STOT-single Exposure No Toxicology data available for this product. 11.1.9 STOT-repeated Exposure No Toxicology data available for this product. 11.1.10 Aspiration Hazard No Toxicology data available for this product. 11.2.1 Additional Toxicology Information No Toxicology data available for this product.

12. Ecological Information

12.1.1 Toxicity No Ecological data available for this product. 12.2.1 Persistence and Degradability No Ecological data available for this product. 12.3.1 Bio-Accumulative Potential No Ecological data available for this product.

12.4.1 Mobility in Soil Log Pow: 0.07

12.5.1 Results of PBT and vPvB assessment No Ecological data available for this product.

12.7.1 Endocrine Disrupting Properties Avoid release to the environment

12.6.1 Other Adverse Effects No Ecological data available for this product.

13. Disposal Considerations

13.1.1 Disposal Operations Ensure product is disposed of by licensed waste carriers.

Ensure INNER PACKAGING is disposed of by licensed waste carriers. Some OUTER PACKAGING MAY be 13.1.2 Disposal of Packaging

recyclable if not contaminated.

14. Transport Information

IATA UN Number	2733	ADR UN Number	2733	IMDG UN Number	2733
14.1.2 IATA Proper Shipping Name	AMINES, FLAMMABLE, CORROSIVE, N.O.S. (Cyclopropylamine)	ADR Proper Shipping Name	AMINES, FLAMMABLE, CORROSIVE, N.O.S. (Cyclopropylamine)	IMDG Proper Shipping Name	AMINES, FLAMMABLE, CORROSIVE, N.O.S. (Cyclopropylamine)
IATA Packing Group	II	ADR Packing Group	II	IMDG Packing Group	II
14.1.4 IATA Hazard Class	3	ADR Hazard Class	3	IMDG Hazard Class	3
14.1.5 IATA Sub Class	8	ADR Sub Class	8	IMDG Sub Class	8

15. Regulatory Information

15.1.1 Regulatory Information As far as Fluorochem is aware, there are no further regulations controlling this product.

15.2.1 Chemical Safety Assessment

No Chemical Safety Assessment is available for this product.

16. Other Information

16.1.2 Information Not Covered in Other

ADR: Accord Europeen sur le transport des merchandises Dangereuses par Route(European Agreement concerning

the International Carriage of Dangerous Goods by road)

RID:Reglement International concernant le transport des merchandises dangereuses par chemin de fer (Regulations

concerning the International transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association ICAO:International Civil

Aviation Organization

ICAO-TI: Technical Instructions by the ICAO

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS:Chemical Abstracts Service

Revision

Date Modified

16.1.1 Disclaimer

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The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user. This SDS adheres to Regulation (EC) No 1907/2006, and as of 13th April 2023, also conforms to EU

Regulation 2020/878.