SAFETY DATA SHEET

fluorochem.

1. Identification of Substance / Mixture

Product Identifier

1.1.2 Product Name 8-Hydroxyquinoline

1.1.2 Other Names

1.1.1 Product Code F093034 1.1.3 CAS 148-24-3

1.1.4 MDL MFCD00006807

1.1.5 EINECS N/A

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. 3 Aquatic Acute 1 Aquatic Chronic 1 Eye Dam. 1 Repr. 1B Skin Sens. 1

2.2.1 Signal Word

Danger

2.2.2 Pictograms



GHS05



GHS06





2.2.3 Hazards

H301 Toxic if swallowed.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage H360D May damage the unborn child.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

2.2.4 Precautions

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

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

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

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

P302+P352.1 IF ON SKIN: Wash with plenty of water.

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.

P330 Rinse mouth.

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

P362+P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

P405 Store locked up.

P501.2 Dispose of contents/container to an appropriate recycling or disposal facility.

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

8-Hydroxyquinoline 148-24-3 N/A H301 Acute Tox. 3 H317 Skin Sens. 1 H318 Eye Dam. 1

H318 Eye Dam. 1 H360D Repr. 1B H400 Aquatic Acute 1 H410 Aquatic Chronic 1

4. First Aid Measures

4.1.1 Eye 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 Where Diphoterine is not available, rinse mouth with copious amounts of water. Seek urgent medical advice.

4.1.3 Inhalation Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory problems seek immediate

medical attention.

4.1.4 Skin Contact Where Diphoterine is not available, rinse skin with copious amounts of water for at least 20 minutes.

4.1.5 General Advice No additional advice

4.2.1 Most Important Symptoms and Effects No known symptom

4.3.1 Immediate First Aid Measures

No known symptoms or effects.

5. Fire Fighting Measures

5.1.1 Suitable Fire Extinguishing Media Carbon dioxide, alcohol resistant foam or dry chemical powder. Use water to extinguish fire.

5.1.2 Unsuitable Fire Extinguishing Media No known unsuitable media.
 5.2.1 Special Hazards In combustion toxic fumes may form.

5.3.1 Advice for Fire Fighters As in any fire, wear self-contained breathing apparatus and full protective gear.

6. Accidental Release Measures

6.1.1 Personal PrecautionsUse 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 PrecautionsPrevent 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

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 Light sensitive. Keep container tightly closed and upright. Store in a cool, dry and well-ventilated place.

7.2.2 Storage Controls
 7.2.3 Maintaining Integrity
 Product is sensitive to light.
 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

vorkstation location.

8.2.2 Face Protection Wear tightly fitting safety goggles 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.

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

normal use conditions.

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

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

9. Physical and Chemical Properties

9.1.1 State Solid
9.1.2 Appearance Powder

9.1.3 Odour
9.1.4 Odour Threshold
9.1.5 pH
No data available.
No data available.

9.1.6 Melting Point / Freezing Point 74°C

9.1.7 Initial Boiling Point

9.1.8 Boiling Range

9.1.9 Flash Point

9.1.10 Evaporation Rate

9.1.11 Flammability

9.1.12 Upper / Lower Flammability or Explosion Limits

No data available.

9.1.13 Vapour Pressure< 0.1 hPa at 25°C9.1.14 Vapour DensityNo data available.9.1.15 Relative Density1.034 g/cm³ at 20°C

9.1.16 Solubility 0.555 g/L at 20°C in Water

 9.1.17 Partition Coefficient
 1.85 at 25°C

 9.1.18 Auto Ignition Temperature
 No data available.

 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 informationNo additional information available.

10. Stability and Reactivity

10.1.1 Reactivity No known reactivity, based on information available.

10.2.1 Stability Light sensitive.

10.3.1 Possibility of Hazardous Reactions None under normal storage conditions.

10.4.1 Conditions To Avoid Exposure to light. 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 LD50 Oral - Mouse - 177 mg/kg

LD50 Dermal - Rat - male and female - > 10,000 mg/kg

(OECD Test Guideline 402)

11.1.2 Skin Corrosion / Irritation No Toxicology data available for this product.

11.1.3 Serious Eye Damage / Irritation Causes serious eye damage.

11.1.4 Respiratory or Skin Sensitisation Toxic if swallowed

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

May damage the unborn child.

 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 Toxicity to fish LC50 - Fish - 18 mg/l - 96 h

Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 2.4 mg/l - 48 h

(OECD Test Guideline 202)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) -

0.225 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - activated sludge - 2 mg/l - 28 d

(OECD Test Guideline 301D)

 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: 1.85

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 Very toxic to aquatic life with long lasting effects., Very toxic to aquatic life.

13. Disposal Considerations

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

13.1.2 Disposal of Packaging

Transport Information

 IATA UN Number
 2811
 ADR UN Number
 2811
 IMDG UN Number
 2811

14.1.2 IATA Proper TOXIC SOLID, ORGANIC, ADR Proper Shipping TOXIC SOLID, ORGANIC, IMDG Proper Shipping TOXIC SOLID, ORGANIC,

Shipping NameN.O.S. (8-
Hydroxyquinoline)NameN.O.S. (8-
Hydroxyquinoline)N.O.S. (8-
Hydroxyquinoline)Hydroxyquinoline)Hydroxyquinoline)

IATA Packing Group III ADR Packing Group III IMDG Packing Group III 14.1.4 IATA Hazard Class 6.1 IMDG Hazard Class 6.1

14.1.5 IATA Sub Class - None - ADR Sub Class - None - IMDG Sub Class - None -

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

16. Other Information

16.1.2 Information Not Covered in Other Sections

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

19-Oct-2023 17:03:00

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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.