

## 1. Identification of Substance / Mixture

## Product Identifier

Product Name	5-Ethoxy-1H-benzo[d]imidazole-2-thiol
Other Names	5-Ethoxy-1,3-dihydro-2H-benzimidazole-2-thione 5-Ethoxy-2-mercaptobenzimidazole 5-Ethoxy-2-benzimidazolethiol
Product Code	235875
CAS	55489-15-1
MDL	MFCD01326487
EINECS	611-274-1
REACH Registration Number	
Relevant Uses	Research and Development
Uses Advised Against	No uses advised against.

## Supplier Details

Company	Fluorochem Limited
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Emergency Telephone	+44(0)1457 860111 (08:00 - 17:30)

## 2. Hazards Identification

Classification	Acute Tox. 4 Skin Sens. 1 STOT RE 2
Signal Word	Warning
Pictograms	 GHS07



GHS08

Hazards	<b>H302</b> Harmful if swallowed. <b>H317</b> May cause an allergic skin reaction. <b>H373</b> May cause damage to organs through prolonged or repeated exposure.
Precautions	<b>P260</b> Do not breathe dust/fume/gas/mist/vapours/spray. <b>P261</b> Avoid breathing dust/fume/gas/mist/vapours/spray. <b>P264</b> Wash hands thoroughly after handling. <b>P270</b> Do not eat, drink or smoke when using this product. <b>P272</b> Contaminated work clothing should not be allowed out of the workplace. <b>P280</b> Wear face protection. <b>P301+P312</b> IF SWALLOWED: Call a doctor if you feel unwell. <b>P302+P352</b> IF ON SKIN: Wash with plenty of water. <b>P314</b> Get medical advice/attention if you feel unwell. <b>P321</b> Specific treatment. <b>P330</b> Rinse mouth. <b>P333+P313</b> If skin irritation or rash occurs: Get medical advice/attention. <b>P362+P364</b> Take off contaminated clothing and wash it before reuse.

## Other Classification Hazards

## 3. Composition of Ingredients

SUBSTANCE				
Name	CAS	Einecs	Composition	Hazards
5-Ethoxy-1H-benzo[d]imidazole-2-thiol	55489-15-1	611-274-1	<= 100%	H302 Acute Tox. 4 H317 Skin Sens. 1 H373 STOT RE 2

## 4. First Aid Measures

Eye contact	Where Diphoterine is not available, rinse eyes with copious amounts of water for at least 20 minutes.
Ingestion	If swallowed rinse the mouth with plenty of water (only if the person is conscious) and contact a poison centre or physician if you feel unwell.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If victim begins to feel unwell, seek urgent medical advice.

<b>Skin Contact</b>	After contact with skin, wash immediately with plenty of water and soap. Remove contaminated clothing immediately. In case of skin reactions, consult a physician.
<b>General Advice</b>	No additional advice.
<b>Most Important Symptoms and Effects</b>	No known symptoms or effects.
<b>Immediate First Aid Measures</b>	No additional first aid measures required.

5. Fire Fighting Measures

<b>Suitable Fire Extinguishing Media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable Fire Extinguishing Media</b>	No known unsuitable media.
<b>Special Hazards</b>	Thermal decomposition can lead to release of irritating gases and vapours.
<b>Advice for Fire Fighters</b>	As in any fire, wear self-contained breathing apparatus and full protective gear.

6. Accidental Release Measures

<b>Personal Precautions</b>	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Keep personnel away from spill/leak.
<b>Environmental Precautions</b>	Do not let product enter drains or waterways. Avoid discharge into the environment.
<b>Containment - Methods and Materials</b>	Spill Response should only be carried out by trained or qualified personnel.
<b>Referenced SDS Sections</b>	For personal protection see section 8. For disposal see section 13.

7. Handling and Storage

<i><b>Personal Precautions</b></i>	
<b>Safe Handling</b>	Wear appropriate personal protective equipment. Use only under a chemical fume hood ensuring adequate ventilation, especially if dust, aerosol or fumes will be generated. Avoid contact with skin, eyes and clothing. For precautions see section 2.2.
<b>Protection Against Explosion and Fire</b>	Where possible, use anti static and spark proof equipment when handling.
<b>General Occupational Hygiene</b>	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***

<b>Managing Storage Risks</b>	Keep container tightly closed and upright. Store in a cool, dry and well-ventilated place.
<b>Storage Controls</b>	No special requirements
<b>Maintaining Integrity</b>	Keep container tightly closed in a cool area away from sunlight or heat sources.
<b>Other Advice</b>	No other specific advice available.
<b>Specific End Use(s)</b>	No specific end uses are advised. The products supplied are for research purposes only.

8. Exposure Controls / Personal Protection

Control Parameters									
Country	Info	Long Term (ppm)	Long Term (mgm3)	Short Term (ppm)	Short Term (mgm3)	Ceiling (ppm)	Ceiling (mgm3)	Other Unit	Remarks
<b>Engineering Measures</b>		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 workstation location.							
<b>Face Protection</b>		Wear tightly fitting safety goggles which adhere to European standard EN 166. Ensure eye bath is to hand.							
<b>Hand Proection</b>		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.							
<b>Skin Protection</b>		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.							
<b>Respiratory Protection</b>		Product should be handled in a fume cupboard with adequate extraction. No respiratory equipment is needed under normal use conditions.							
<b>Hygiene Protection</b>		Ensure hair or skin particles cannot enter the chemical container.							
<b>Environment Exposure Controls</b>		Avoid discharge into the environment, see section 6.2.							

9. Physical and Chemical Properties

Solid

<b>State</b>	
<b>Appearance</b>	Powder or Crystalline Powder or Solid
<b>Odour</b>	No data available.
<b>Odour Threshold</b>	No data available.
<b>pH</b>	No data available.
<b>Melting Point / Freezing Point</b>	246 to 250Å°C
<b>Initial Boiling Point</b>	No data available.
<b>Boiling Range</b>	No data available.
<b>Flash Point</b>	No data available.
<b>Evaporation Rate</b>	No data available.
<b>Flammability</b>	No data available.
<b>Upper / Lower Flammability or Explosion Limits</b>	No data available.
<b>Vapour Pressure</b>	No data available.
<b>Vapour Density</b>	No data available.
<b>Relative Density</b>	1.32g/cm3
<b>Solubility</b>	No data available.
<b>Partion Coefficient</b>	No data available.
<b>Auto Ignition Temperature</b>	No data available.
<b>Decomposition Temperature</b>	No data available.
<b>Viscosity</b>	No data available.
<b>Explosive Properties</b>	No data available.
<b>Oxidising Properties</b>	No data available.
<b>Other information</b>	

## 10. Stability and Reactivity

<b>Reactivity</b>	No known reactivity, based on information available.
<b>Stability</b>	Stable under recommended storage conditions.
<b>Possibility of Hazardous Reactions</b>	None under normal storage conditions.
<b>Conditions To Avoid</b>	Excess heat. Exposure to moisture.
<b>Incompatible Materials</b>	Strong oxidising agents.
<b>Hazardous Decomposition Products</b>	In combustion emits toxic fumes of carbon dioxide / carbon monoxide. In combustion emits toxic fumes of sulphur oxides. In combustion emits toxic fumes of nitrogen oxides.

## 11. Toxicology Information

<b>Acute Toxicity</b>	No Toxicology data available for this product.
<b>Skin Corrosion / Irritation</b>	No Toxicology data available for this product.
<b>Serious Eye Damage / Irritation</b>	Lachrymator
<b>Respiratory or Skin Sensitisation</b>	May cause an allergic skin reaction.
<b>Germ Cell Mutagenicity</b>	May cause damage to organs through prolonged or repeated exposure.
<b>Carcinogenicity</b>	No Toxicology data available for this product.
<b>Reproductive Toxicity</b>	No Toxicology data available for this product.
<b>STOT-single Exposure</b>	May cause damage to organs through prolonged or repeated exposure.
<b>STOT-repeated Exposure</b>	May cause damage to organs through prolonged or repeated exposure.
<b>Aspiration Hazard</b>	No Toxicology data available for this product.
<b>Additional Toxicology Information</b>	No Toxicology data available for this product.

## 12. Ecological Information

<b>Toxicity</b>	No Ecological data available for this product.
<b>Persistence and Degradability</b>	No Ecological data available for this product.
<b>Bio-Accumulative Potential</b>	No Ecological data available for this product.
<b>Mobility in Soil</b>	No Ecological data available for this product.
<b>Results of PBT and vPvB assessment</b>	No Ecological data available for this product.
	No Ecological data available for this product.

Endocrine Disrupting Properties

Other Adverse Effects

No Ecological data available for this product.

13. Disposal Considerations

Disposal Operations

Ensure product is disposed of by licensed waste carriers.

Disposal of Packaging

Ensure INNER PACKAGING is disposed of by licensed waste carriers. Some OUTER PACKAGING MAY be recyclable if not contaminated.

14. Transport Information

This product is classified as non-hazardous for transport.

15. Regulatory Information

Regulatory Information

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

Chemical Safety Assessment

No Chemical Safety Assessment available for this product.

16. Other Information

Information Not Covered in Other Sections

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)  
RID:Reglement International concernant le transport des marchandises 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

14.006

Date Modified

10/01/2023

Disclaimer

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.