nologies

SAFETY DATA SHEET

(In accordance with COMMISSION REGULATION (EU) No 453/2010)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

| Product code | F1201 | |
|---|---|--|
| Product name | fura-2, AM *cell permeant* | |
| Chemical Name | Not applicable | |
| REACH registration number | No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired. | |
| Relevant identified uses of the substance or mixture and uses advised against | | |

| Relevant identified uses | For research use only |
|--------------------------|--|
| Use Description Code | SU22 - Public domain (administration, education, entertainment, services, |
| - | craftsmen), PROC15 - Use as a laboratory reagent, PC21 - Laboratory chemicals, |
| | SU24 - Scientific research and development |
| Uses advised against | Not for consumer use. |

Details of the supplier of the safety data sheet

Manufacturer/Supplier

LIFE TECHNOLOGIES EUROPE BV KWARTSWEG 2 2665 NN BLEISWIJK NETHERLANDS 31-(0)180 392 400 Email: MSDS@lifetech.com

24 hour Emergency Response: 866-536-0631 301-431-8585 Outside of the U.S. ++1-301-431-8585

Country specific Emergency Number (if available): , , , ,

| CHEMTREC Ireland (Dublin) | +(353)-19014670 (Greeting Language: English and Irish) |
|---------------------------|--|
| CHEMTREC UK (London) | +(44)-870-8200418 (Greeting Language: English) |

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Physical hazards Not classified

Health hazards Not classified

Environmental Hazards Not classified

Additional information Not applicable

Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms No Pictogram

Signal word None

hazard statements Not applicable

Precautionary Statements Not applicable Not applicable Precautionary Statements

Prevention Not applicable

Response Not applicable

Storage Not applicable

Disposal Not applicable

Other Hazards This mixture does not contain any substances that are assessed to be a PBT or a vPvB

SECTION 3: Composition/information on ingredients

| Component | CAS-No. | EINECS-No. | Weight percent | REACH registration number | Classification according to Regulation (EC) No 1272/2008 [CLP] |
|---|---------|------------|----------------|------------------------------|---|
| 1-[2-(5-Carboxyoxazol-2-yl)-6- aminobenzofuran-5-oxy]-2-(2- amino-5-methylphenoxy)-etha ne-N,N,NN-tetraacetic acid pentaacetoxymethyl ester 108964-32-5 (98-100) | | - | 98-100 | - | Not classified |

Description of first aid measures

| Skin contact | Rinse with plenty of water. Immediate medical attention is not required. |
|--------------------|---|
| Eye contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present |
| | and easy to do. |
| INGESTION | Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice. |
| Inhalation | Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary. |
| Notes to Physician | Treat symptomatically. |

Most important symptoms and effects, both acute and delayed Not applicable.

Indication of any immediate medical attention and special treatment needed None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable Extinguishing Media Unsuitable Extinguishing Media Water spray. Carbon dioxide (CO2). Foam. Dry chemical. No information available.

Special hazards arising from the substance or mixture Not known.

Advice for fire-fighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See Section 8 for more detail.

Environmental precautions

Avoid discharge into drains and waterways whenever possible.

Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

See section 8 for more information.

Precautions for safe handling

Use personal protective equipment as required. Wear personal protective equipment.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure Limits

| Chemica | | EU OEL (TWA) | EU OEL (STEL) | EU Skin Notation |
|--|-------------------------|-----------------------|-------------------------------|---------------------------|
| 1-[2-(5-Carboxyoxazol-2-yl)-6-aminobenzofuran-5-oxy]-2-(| | None | None | None |
| 2-amino-5-methylphenoxy)-ethane-N,N,NN-tetraacetic | | | | |
| acid pentaaceto | | | | |
| 10896 | | | | |
| | | | 1 1 | |
| Chemical Name | Austria | Belgium (TWA) | Denmark (TWA) | Finland OEL (TWA) |
| I-[2-(5-Carboxyoxazol-2-yl)- | None | None | None | None |
| 6-aminobenzofuran-5-oxy]-2 | | | | |
| (2-amino-5-methylphenoxy) | | | | |
| -ethane-N,N,NN-tetraacetic | | | | |
| acid pentaacetoxymethyl | | | | |
| ester | | | | |
| 108964-32-5 | | | | |
| | | | | |
| Chemical Name | France OEL (VME) | Germany OEL (TWA) | Ireland (TWA) | Italy OEL (TWA) |
| I-[2-(5-Carboxyoxazol-2-yl)- | None | None | None | None |
| 6-aminobenzofuran-5-oxy]-2 | | | | |
| (2-amino-5-methylphenoxy) | | | | |
| -ethane-N,N,NN-tetraacetic | | | | |
| acid pentaacetoxymethyl | | | | |
| ester | | | | |
| 108964-32-5 | | | | |
| Chemical Name | Sweden - Occupational | Netherlands OEL (MAC) | Spain OEL (TWA) | United Kingdom |
| Chemical Name | Exposure Limits - TLVs | Nethenands OEL (MAC) | | onnea Kingaoni |
| | (LLVs) | | | |
| 1-[2-(5-Carboxyoxazol-2-yl)- | None | None | None | None |
| 6-aminobenzofuran-5-oxy]-2 | | | | |
| (2-amino-5-methylphenoxy) | | | | |
| -ethane-N,N,NN-tetraacetic | | | | |
| acid pentaacetoxymethyl | | | | |
| ester | | | | |
| 108964-32-5 | | | | |
| | | | | |
| Chemical Name | European Union | United Kingdom | France OEL (VME) | Germany OEL (TWA |
| I-[2-(5-Carboxyoxazol-2-yl)- | None | None | None | None |
| 6-aminobenzofuran-5-oxy]-2 | | | | |
| (2-amino-5-methylphenoxy) | | | | |
| -ethane-N,N,NN-tetraacetic | | | | |
| acid pentaacetoxymethyl ester | | | | |
| ester 108964-32-5 | | | | |
| 100304-32-3 | | | I | |
| | | | | |
| Chemical Name | Italy OEL (TWA) | Portugal | Netherlands OEL (MAC) | Finland OEL (TWA) |
| | Italy OEL (TWA) None | Portugal None | Netherlands OEL (MAC) None | Finland OEL (TWA) None |
| 1-[2-(5-Carboxyoxazol-2-yl)- | i i i | | · · · · · | |
| 1-[2-(5-Carboxyoxazol-2-yl)- 6-aminobenzofuran-5-oxy]-2 | i i i | | · · · · · | |
| 1-[2-(5-Carboxyoxazol-2-yl)- 6-aminobenzofuran-5-oxy]-2 ·(2-amino-5-methylphenoxy) | i i i | | · · · · · | |
| 1-[2-(5-Carboxyoxazol-2-yl)- 6-aminobenzofuran-5-oxy]-2 ·(2-amino-5-methylphenoxy) | i i i | | · · · · · | |
| 1-[2-(5-Carboxyoxazol-2-yl)- 3-aminobenzofuran-5-oxy]-2 (2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic | i i i | | · · · · · | |
| 1-[2-(5-Carboxyoxazol-2-yl)- 6-aminobenzofuran-5-oxy]-2 (2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl | i i i | | · · · · · | |
| I-[2-(5-Carboxyoxazol-2-yl)- 5-aminobenzofuran-5-oxy]-2 (2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl ester | i i i | | · · · · · | None |
| I-[2-(5-Carboxyoxazol-2-yl)- 5-aminobenzofuran-5-oxy]-2 (2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl ester 108964-32-5 Chemical Name | None | None Denmark | None Poland | None |
| 1-[2-(5-Carboxyoxazol-2-yl)- 5-aminobenzofuran-5-oxy]-2 (2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl ester 108964-32-5 Chemical Name 1-[2-(5-Carboxyoxazol-2-yl)- | None | None | None | None |
| 1-[2-(5-Carboxyoxazol-2-yl)- 5-aminobenzofuran-5-oxy]-2 (2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl ester 108964-32-5 Chemical Name 1-[2-(5-Carboxyoxazol-2-yl)- 5-aminobenzofuran-5-oxy]-2 | None | None Denmark | None Poland | None |
| 1-[2-(5-Carboxyoxazol-2-yl)- 5-aminobenzofuran-5-oxy]-2 (2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl ester 108964-32-5 Chemical Name 1-[2-(5-Carboxyoxazol-2-yl)- 5-aminobenzofuran-5-oxy]-2 (2-amino-5-methylphenoxy) | None | None Denmark | None Poland | None |
| 1-[2-(5-Carboxyoxazol-2-yl)- 5-aminobenzofuran-5-oxy]-2 (2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl ester 108964-32-5 Chemical Name 1-[2-(5-Carboxyoxazol-2-yl)- 5-aminobenzofuran-5-oxy]-2 (2-amino-5-methylphenoxy) | None | None Denmark | None Poland | None |
| 1-[2-(5-Carboxyoxazol-2-yl)- 6-aminobenzofuran-5-oxy]-2 -(2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl ester 108964-32-5 | None | None Denmark | None Poland | None |

| 108964-32-5 | | | | |
|---|---------|--------|---------------------|-----------------|
| | | | I | |
| Chemical Name | Ireland | Norway | Lithuania OEL (TWA) | Spain OEL (TWA) |
| 1-[2-(5-Carboxyoxazol-2-yl)- 6-aminobenzofuran-5-oxy]-2 -(2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl | | None | None | None |
| ester 108964-32-5 | | | | |

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protection equipment

| Respiratory protection | In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards. |
|--------------------------|---|
| Hand Protection | Wear suitable gloves Glove material: Compatible chemical-resistant gloves. |
| Eye protection | Tight sealing safety goggles. |
| Skin and body protection | Wear suitable protective clothing. |
| Hygiene measures | Handle in accordance with good industrial hygiene and safety practice. |

Environmental exposure controls

Avoid discharge into drains and waterways whenever possible.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| Appearance Odour pH Melting point / melting range Boiling point / boiling range Flash point Autoignition temperature Decomposition temperature Evaporation rate Flammability (solid, gas) Upper explosion limit Lower explosion limit Vapour Pressure Relative density Specific gravity Solubility Partition coefficient: n-octanol/water Explosive properties | Solid no data available Not applicable °C Mixture has not been tested °C Mixture has not been tested no data available Mixture has not been tested Mixture has not been tested no data available no data available no data available no data available no data available |
|--|--|
| Explosive properties OTHER INFORMATION | Mixture has not been tested no data available |
| | |

°F Mixture has not been tested

SECTION 10: Stability and reactivity

| Reactivity | None known. |
|------------------------------------|---|
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | Hazardous reaction has not been reported. |
| Conditions to Avoid | No information available. |
| Incompatible Materials | No dangerous reaction known under conditions of normal use. |
| Hazardous decomposition products | no data available. |

SECTION 11: Toxicological information

Information on toxicological effects

To the best of our knowledge, the chemical, physical, biological, and toxicological properties of this product have not been thoroughly investigated.

| Chemical Name | LD50 (oral,rat/mouse) | LD50 (dermal,rat/rabbit) | LC50 (inhalation,rat/mouse) |
|-----------------------------------|-----------------------|--------------------------|-----------------------------|
| 1-[2-(5-Carboxyoxazol-2-yl)-6-ami | no data available | no data available | no data available |
| nobenzofuran-5-oxy]-2-(2-amino-5 | | | |
| -methylphenoxy)-ethane-N,N,NN-t | | | |
| etraacetic acid | | | |
| pentaacetoxymethyl ester | | | |

Principle Routes of Exposure, Potential health effects

| ritation No information availab | | |
|---------------------------------|--------------------------|--|
| Corrosivity | No information available | |
| Sensitisation | No information available | |
| STOT - Single Exposure | No information available | |
| STOT - Repeated Exposure | No information available | |
| Carcinogenicity | No information available | |
| Mutagenicity | No information available | |
| Reproductive toxicity | No information available | |

SECTION 12: Ecological information

Toxicity

The environmental impact of this product has not been fully investigated.

| Chemical Name | Freshwater Algae Data | Water Flea Data | Freshwater Fish Species Data | Microtox Data | log Pow |
|--|--------------------------|-------------------|---------------------------------|-------------------|-------------------|
| 1-[2-(5-Carboxyoxazol-2-yl)- 6-aminobenzofuran-5-oxy]-2 -(2-amino-5-methylphenoxy) -ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl ester | | no data available | no data available | no data available | no data available |

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects

No information available.

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not classified as dangerous in the meaning of transport regulations.

| UN Number | Not applicable | | |
|------------------------------|----------------|--|--|
| UN proper shipping name | Not applicable | | |
| Transport hazard class(es) | Not applicable | | |
| Packing group | Not applicable | | |
| Environmental Hazards | Not applicable | | |
| Special precautions for user | Not applicable | | |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

Substances of Very High Concern None.

Restricted substances under EC 1907/2006, Annex XVII None.

Substances listed under Annex I of Regulation (EC) No 689/2008 None.

Restricted substances under Annex V of Regulation (EC) No 689/2008 None.

Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC None.

German Water hazard classes (Wassergefährdungsklassen) Not classified.

Other International Inventories

| Chemical Name | EINECS (European Union) | ELINCS (European List of Notified Chemical Substances) | ENCS (Japan) | PICCS (Philippines) |
|---|----------------------------|---|--------------|---------------------|
| 1-[2-(5-Carboxyoxazol-2-yl)-6-aminobenzofuran-5-oxy]-2-(2-amino-5-methylphenoxy)-ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl ester | - | - | - | - |

| Chemical Name | AICS (Australia) | South Korea (KECL) | Canada (DSL) | NDSL |
|---|------------------|-----------------------|--------------|------|
| 1-[2-(5-Carboxyoxazol-2-yl)-6-aminobenzofuran-5-oxy]-2-(2-amino-5-methylphenoxy)-ethane-N,N,NN-tetraacetic acid pentaacetoxymethyl ester | - | - | - | - |

Chemical Safety Assessment

No Chemical safety assessment has been carried out.

SECTION 16: Other information

Reason for revision

Update according to Commission Regulation (EU) No 453/2010.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE"