**Cette section présente les différents flacons présents dans le kit. Les fiches de sécurité de tous ces composants sont disponibles dans la langue choisie à la suite du document.**

**This section shows all the vials in the kit. The Safety Datasheets are available in the selected language in the next part of the document.**

## Nomenclature of the product

| Description | Component | Nb of vials | pH | Color | Physical state |
|---|---|---|---|---|---|
| HTRF Lysis buffer (4X) - 130 mL | | 2 | 7 | Colorless | Liquid |
| HTRF B-arrestin 2 total kit - Ctrl lys. | 64BAR2TTDA | 3 | 7 | Colorless | Liquid |
| HTRF B-arrestin 2 total kit - 20K pts d2 antibody | | 2 | 7 | Blue | Liquid |
| HTRF B-arrestin 2 total kit - 20K pts Eu Cryptate antibody | | 2 | 7 | Colorless | Liquid |
| HTRF P-T prot. - Detect. Buf. 50 mL | | 2 | 7 | Colorless | Liquid |

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

### *1.1 Product identifier:*

**Designation / Trade name: HTRF B-arrestin 2 total kit - Ctrl lys. 64BAR2TTDA**

CAS No.: Index No: EC No: REACH No:

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

Relevant identified uses: Use of the substance or mixture for Laboratory Research use only ;
Uses advised against: Do not use for diagnostics, therapeutics or other clinical uses. ;

### *1.3 Details of the supplier of the safety data sheet:*

Supplier:
Name: CISBIO BIOASSAYS, company of Revvity Group - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone : +33 4 66 79 67 05 - Fax : +33 4 66 79 67 50
E-Mail (competent person): codolet.sds@revvity.com

### *1.4 EMERGENCY TELEPHONE NUMBER:*

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59
Ce numéro permet d'obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d'appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
https://www.cisbio.com
https://www.revvity.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

## SECTION 2 : HAZARDS IDENTIFICATION

### *2.1 Classification of the substance or mixture:*

| Classification in accordance with 29 CFR 1910 (OSHA HCS) | Category code | Hazard statement | Precautionary statement |
|---|---|---|---|
| The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS) | None | None | None |

### *2.2 Label elements*

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: HTRF B-arrestin 2 total kit - Ctrl lys. 64BAR2TTDA

Substances contained in this product:

Hazard pictograms

Signal word:

Hazard and precautionary statements:

***2.3 Other hazards***

The mixture contains substances classified as 'Substances of Very High Concern' (SVHC) published by the European CHemicals Agency (ECHA) under article 57 of REACH at levels of 0.1% or higher. This substance or mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher ;

Adverse human health effects:

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### *3.2 Mixtures*

Hazardous ingredients:

| Substance name | CAS n° | Index n° | EC n° | Classification in accordance with 29 CFR 1910 (OSHA HCS) | Concentration (%) | SCL | M-factor |
|---|---|---|---|---|---|---|---|
| 4-(2-hydroxyethyl)piperazin-1-ylethanesulphonic acid | 7365-45-9 | | 230-907-9 | | < 3% | | |
| Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy- | 9002-93-1 | | | Acute toxicity - Acute Tox. 4 - H302 - Oral<br>Hazardous to the aquatic environment - Aquatic Acute 1 - H400<br>Hazardous to the aquatic environment - Aquatic Chronic 1 - H410<br>Serious eye damage/eye irritation - Eye Dam. 1 - H318<br>Skin corrosion/irritation - Skin Irrit. 2 - H315 | < 1% | | |

Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

## SECTION 4 : FIRST AID MEASURES

### *4.1 Description of first aid measures*

**General information**: Do not leave affected person unattended. ;
**Following inhalation**: In case of respiratory tract irritation, consult a physician. ;
**Following skin contact**:After contact with skin, wash immediately with water ;
**Following eye contact**: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
**Following ingestion**: Do NOT induce vomiting. ;
**Self-protection of the first aider**:

### *4.2 Most important symptoms and effects, both acute and delayed*

Symptoms: No known symptoms to date. ;
Effects:

### *4.3 Indication of any immediate medical attention and special treatment needed*

Notes for the doctor:

## SECTION 5 : FIREFIGHTING MEASURES

### *5.1 Extinguishing media:*

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire ;

***5.2 Special hazards arising from the substance or mixture***

Hazardous combustion products: /

***5.3 Advice for fire-fighters***

Wear Protective clothing. ;
Additional information:

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

***6.1 Personal precautions, protective equipment and emergency procedures***

Emergency procedures: Provide adequate ventilation. ;

***6.2 Environmental precautions***

Do not allow to enter into surface water or drains. ;

***6.3 Methods and material for containment and cleaning up***

For cleaning up: Suitable material for taking up: Absorbing material, organic ;
Other information:

***6.4 Reference to other sections***

Additional information:

## SECTION 7 : HANDLING AND STORAGE

***7.1 Precautions for safe handling***

Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes. ;
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ;
Advice on general occupational hygiene : Handle in accordance with good industrial hygiene and safety practice ;

***7.2 Conditions for safe storage, including any incompatibilities***

Requirements for storage rooms and vessels: Keep container tightly closed. ;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

***7.3 Specific end uses:***

Recommendations on specific end uses: Observe technical data sheet. ;

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### *8.1 Control parameters*

Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)

| Source : | Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELS) from 29 CFR 1910.1000 | | | | | |
|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)** | **OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m3)** | **OSHA Permissible Exposure Limit (PEL) STEL (ppm)** | **OSHA Permissible Exposure Limit (PEL) STEL (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | |

| Source : | TRGS 903, November 2015, BAuA | | | |
|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **BGW (mg/m3)** | **BGW (ppm)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | |

8.1.2 DNEL/PNEC-values:

- DNEL worker

| Source : | GESTIS – substance database | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Acute – dermal, local effects (mg/kg/day)** | **Long-term – dermal, local effects (mg/kg/day)** | **Long-term – dermal, systemic effects (mg/kg/day)** | **Acute – inhalation, local effects (mg/m3)** | **Acute – inhalation, systemic effects (mg/m3)** | **Long-term – inhalation, local effects (mg/m3)** | **Long-term – inhalation, systemic effects (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | 23.5-23.5 | | |

- DNEL consumer

| Source : | GESTIS – substance database | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Acute – dermal, local effects (mg/kg/day)** | **Long-term – dermal, local effects (mg/kg/day)** | **Long-term – dermal, systemic effects (mg/kg/day)** | **Acute – inhalation, local effects (mg/m3)** | **Acute – inhalation, systemic effects (mg/m3)** | **Long-term – inhalation, local effects (mg/m3)** | **Long-term – inhalation, systemic effects (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | |

- PNEC

| Source : | INERIS | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | PNEC AQUATIC | | | | | | | | | PNEC Sediment | | | | | |
| | | | freshwater | | | marine water | | | intermittent release | | | freshwater | | | marine water | | |
| | | | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | | | | | | | | | |

| Source : | INERIS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | Others | | | | | | | | | | | | |
| | | | PNEC soil | | | PNEC sewage treatment plant | | | PNEC air | | | PNEC secondary poisoning | | | |
| | | | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | | | | | | | |

### *8.2 Exposure controls*

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7
8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields ;
Skin protection:Gloves ;
Respiratory protection:Ensure adequate ventilation ;
Thermal hazards:
8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### *9.1 Information on basic physical and chemical properties*

Appearance

| | |
|---|---|
| Physical state | Liquid ; |
| Colour | Colorless ; |
| Odour | |
| Odour threshold (ppm) | |

| | Value | Concentration (mol/L) | Method | Temperature (°C) | Pressure (kPa) | Remark |
|---|---|---|---|---|---|---|
| pH | 7 | | | | | |
| Melting point (°C) | | | | | | |
| Freezing point (°C) | | | | | | |
| Initial boiling point/boiling range (°C) | | | | | | |
| Flash point (°C) | | | | | | |
| Evaporation rate (kg/m²/h) | | | | | | |
| Flammability (type : ) (%) | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Upper/lower flammability or explosive limits | Upper explosive limit (%) | | | | | | |
| | Lower explosive limit (%) | | | | | | |
| Vapour pressure (kPa) | | | | | | | |
| Vapour density (g/cm³) | | | | | | | |
| Densities | Density (g/cm³) | | | | | | |
| | Relative density (g/cm³) | | | | | | |
| | Bulk density (g/cm³) | | | | | | |
| | Critical density (g/cm³) | | | | | | |
| Solubility (Type : ) (g/L) | | | | | | | |
| Partition coefficient (log Pow) n-octanol/water at pH : | | | | | | | |
| Auto-ignition temperature (°C) | | | | | | | |
| Decomposition temperature (°C) Decomposition energy : kJ | | | | | | | |
| Viscosity | Viscosity, dynamic (poiseuille) | | | | | | |
| | Viscosity, cinematic (cm³/s) | | | | | | |
| Explosive properties | | | | | | | |
| Oxidising properties | | | | | | | |

### *9.2 Other information:*

No other relevant data available

## SECTION 10 : STABILITY AND REACTIVITY

### *10.1 Reactivity*

This material is considered to be non-reactive under normal use conditions. ;

### *10.2 Chemical stability*

### *10.3 Possibility of hazardous reactions*

### *10.4 Conditions to avoid:*

### *10.5 Incompatible materials:*

### *10.6 Hazardous decomposition products:*

Does not decompose when used for intended uses. ;

## SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution

### *11.1 Information on toxicological effects*

Substances

- **Acute toxicity**

Animal data:

Acute oral toxicity:

| Substance name | LD50 (mg/kg) | Species | Method | Symptoms / delayed effects | Remark |
|---|---|---|---|---|---|
| 9002-93-1 | 1800-1800 | Rat | | | |

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- **Skin corrosion/irritation**

Animal data:

| Substance name | Species | Method | Exposure time | Result/evaluation | Score | Remark |
|---|---|---|---|---|---|---|
| 9002-93-1 | | | | | | |

In-vitro skin test method:
In-vitro skin test result:

Assessment / Classification:

- **Eye damage/irritation**

Animal data:

| Substance name | Species | Method | Exposure time | Result/evaluation | Score | Remark |
|---|---|---|---|---|---|---|
| 9002-93-1 | Rabbit | | | Eye irritation | | |

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

  - Carcinogenicity

Practical experience / human evidence:

Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

## SECTION 12 : ECOLOGICAL INFORMATION

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for

mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

### *12.1 Aquatic toxicity:*

Acute (short-term) fish toxicity

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **LC50 (mg/L)** | **EC50 (mg/L)** | **Test duration** | **Species** | **Result/ Evaluation** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | 8,9 | | 96 | Pimephales promelas (fathead minnow) | | | | |

Chronic (long-term) fish toxicity

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **NOEC (mg/L)** | **Test duration** | **Species** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | | |

Acute (short-term) toxicity to crustacea

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **EC50 (mg/L)** | **Test duration** | **Species** | **Result/ Evaluation** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | 26 | 48 | | | | | |

Chronic (long-term) toxicity to crustacea

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **NOEC (mg/L)** | **Test duration** | **Species** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | | |

Acute (short-term) toxicity to algae and cyanobacteria

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **EC50 (mg/L)** | **Test duration** | **Species** | **Result/ Evaluation** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | | | |

Toxicity to microorganisms and other aquatic plants / organisms

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **EC50 (mg/L)** | **Species** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | |

Assessment / Classification:

### *12.2 Persistence and degradability*

Biodegradation:

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Inoculum** | **Biodegradation parameter** | **Degradation rate (%)** | **Method** | **Remark** |
| 9002-93-1 | | 9002-93-1 | | BOD (% of COD). | 36-36 | | In accordance with the required stability the product is poorly biodegradable. |

Abiotic Degradation:

| Source : | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Abiotic degradation test type** | **Half-life time (j)** | **Temperature (°C)** | **pH** | **Method** | **Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | | |

Assessment / Classification:

### *12.3 Bioaccumulative potential*

Bioconcentration factor (BCF):

| Source : | | | | | | |
|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Species** | **Result** | **Method** | **Remark** |
| 9002-93-1 | | 9002-93-1 | | | | |

### *12.4 Mobility in soil*

| Source : | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC n°** | **CAS n°** | **Distribution** | **Transport type** | **Henry's law constant (Pa.m3/mol)** | **Log KOC** | **Half-life time in soil (j)** | **Half-life time in fresh water (j)** | **Half-life time in sea water (j)** | **Method** | **Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | | | | | |

### *12.5 Results of PBT and vPvB assessment*

### *12.6 Other adverse effects:*

Additional ecotoxicological information:

## SECTION 13 : DISPOSAL CONSIDERATIONS

### *13.1 Waste treatment methods*

Waste treatment options:
Dispose of waste according to applicable legislation. ;

Other disposal recommendations:
Additional information:

## SECTION 14 : TRANSPORT INFORMATION

ADR/RID/AND/IMDG/IATA

| | |
|---|---|
| UN No. | |
| UN Proper shipping name | |
| Transport hazard class(es) | |
| Hazard label(s) | |
| Packing group | |

***Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code***

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No: Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing instructions for IMDG: IBC Instructions:
IBC Provisions: IMO tank instructions:
UN tank instructions: Tanks and bulk Provisions:
EmS : Stowage and segregation for IMDG:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage: Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity :
Passenger and Cargo Aircraft Packaging Instructions :
Passenger and Cargo Aircraft Maximal Net Quantity :
Cargo Aircraft only Packaging Instructions :

Cargo Aircraft only Maximal Net Quantity :
ERG code: Special Provisions for IATA:

## SECTION 15 : REGULATORY INFORMATION

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

### *15.2 Chemical Safety Assessment:*

For the following substances of this mixture a chemical safety assessment has been carried out :

## SECTION 16 : OTHER INFORMATION

### *16.1 Indication of changes*

Date of the previous version:06/09/2023
Modifications:

### *16.2 Abbreviations and acronyms:*

### *16.3 Key literature references and sources for data*

### *16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g):*

See SECTION 2.1 (classification).

### *16.5 Relevant R-, H- and EUH-phrases (number and full text):*

| Code | Hazard statments |
|---|---|
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage. |
| H400 | Very toxic to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |

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

### *1.1 Product identifier:*

**Designation / Trade name: HTRF Lysis buffer (4X) - 130 mL**

CAS No.: Index No: EC No: REACH No:

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

Relevant identified uses: Use of the substance or mixture for Laboratory Research use only ;
Uses advised against: Do not use for diagnostics, therapeutics or other clinical uses. ;

### *1.3 Details of the supplier of the safety data sheet:*

Supplier:
Name: CISBIO BIOASSAYS, company of Revvity Group - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone : +33 4 66 79 67 05 - Fax : +33 4 66 79 67 50
E-Mail (competent person): codolet.sds@revvity.com

### *1.4 EMERGENCY TELEPHONE NUMBER:*

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59
Ce numéro permet d'obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d'appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
https://www.cisbio.com
https://www.revvity.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

## SECTION 2 : HAZARDS IDENTIFICATION

### *2.1 Classification of the substance or mixture:*

| Classification in accordance with 29 CFR 1910 (OSHA HCS) | Category code | Hazard statement | Precautionary statement |
|---|---|---|---|
| Hazardous to the aquatic environment - Aquatic Chronic 3 - H412 | Aquatic Chronic 3 | H412 | P273\|P501 |

### *2.2 Label elements*

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: HTRF Lysis buffer (4X) - 130 mL

Substances contained in this product:

Hazard pictograms

Signal word:

Hazard and precautionary statements:

| Code | Hazard statments |
|---|---|
| H412 | Harmful to aquatic life with long lasting effects |
| P273 | Avoid release to the environment. |
| P501 | Dispose of contents/container to ... |

### *2.3 Other hazards*

The mixture contains substances classified as 'Substances of Very High Concern' (SVHC) published by the European CHemicals Agency (ECHA) under article 57 of REACH at levels of 0.1% or higher. This substance or mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher ;

Adverse human health effects:

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### *3.2 Mixtures*

Hazardous ingredients:

| Substance name | CAS n° | Index n° | EC n° | Classification in accordance with 29 CFR 1910 (OSHA HCS) | Concentration (%) | SCL | M-factor |
|---|---|---|---|---|---|---|---|
| 4-(2-hydroxyethyl)piperazin-1-ylethanesulphonic acid | 7365-45-9 | | 230-907-9 | | < 10% | | |
| Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy- | 9002-93-1 | | | Acute toxicity - Acute Tox. 4 - H302 - Oral<br>Hazardous to the aquatic environment - Aquatic Acute 1 - H400<br>Hazardous to the aquatic environment - Aquatic Chronic 1 - H410<br>Serious eye damage/eye irritation - Eye Dam. 1 - H318<br>Skin corrosion/irritation - Skin Irrit. 2 - H315 | < 1% | | |

Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

## SECTION 4 : FIRST AID MEASURES

### *4.1 Description of first aid measures*

**General information**: Do not leave affected person unattended. ;
**Following inhalation**: In case of respiratory tract irritation, consult a physician. ;
**Following skin contact**:After contact with skin, wash immediately with water ;
**Following eye contact**: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
**Following ingestion**: Do NOT induce vomiting. ;
**Self-protection of the first aider**:

### *4.2 Most important symptoms and effects, both acute and delayed*

Symptoms: No known symptoms to date. ;
Effects:

### *4.3 Indication of any immediate medical attention and special treatment needed*

Notes for the doctor:

## SECTION 5 : FIREFIGHTING MEASURES

### *5.1 Extinguishing media:*

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire ;

### *5.2 Special hazards arising from the substance or mixture*

Hazardous combustion products: /

### *5.3 Advice for fire-fighters*

Wear Protective clothing. ;
Additional information:

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### *6.1 Personal precautions, protective equipment and emergency procedures*

Emergency procedures: Provide adequate ventilation. ;

### *6.2 Environmental precautions*

Do not allow to enter into surface water or drains. ;

### *6.3 Methods and material for containment and cleaning up*

For cleaning up: Suitable material for taking up: Absorbing material, organic ;
Other information:

### *6.4 Reference to other sections*

Additional information:

## SECTION 7 : HANDLING AND STORAGE

### *7.1 Precautions for safe handling*

Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes. ;
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ;
Advice on general occupational hygiene : Handle in accordance with good industrial hygiene and safety practice ;

### *7.2 Conditions for safe storage, including any incompatibilities*

Requirements for storage rooms and vessels: Keep container tightly closed. ;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

### *7.3 Specific end uses:*

Recommendations on specific end uses: Observe technical data sheet. ;

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### *8.1 Control parameters*

Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)

| Source : | Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELS) from 29 CFR 1910.1000 | | | | | |
|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)** | **OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m3)** | **OSHA Permissible Exposure Limit (PEL) STEL (ppm)** | **OSHA Permissible Exposure Limit (PEL) STEL (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | |

| Source : | TRGS 903, November 2015, BAuA | | | |
|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **BGW (mg/m3)** | **BGW (ppm)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | |

8.1.2 DNEL/PNEC-values:

- DNEL worker

| Source : | GESTIS – substance database | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Acute – dermal, local effects (mg/kg/day)** | **Long-term – dermal, local effects (mg/kg/day)** | **Long-term – dermal, systemic effects (mg/kg/day)** | **Acute – inhalation, local effects (mg/m3)** | **Acute – inhalation, systemic effects (mg/m3)** | **Long-term – inhalation, local effects (mg/m3)** | **Long-term – inhalation, systemic effects (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | 23.5-23.5 | | |

- DNEL consumer

| Source : | GESTIS – substance database | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Acute – dermal, local effects (mg/kg/day)** | **Long-term – dermal, local effects (mg/kg/day)** | **Long-term – dermal, systemic effects (mg/kg/day)** | **Acute – inhalation, local effects (mg/m3)** | **Acute – inhalation, systemic effects (mg/m3)** | **Long-term – inhalation, local effects (mg/m3)** | **Long-term – inhalation, systemic effects (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | |

- PNEC

| Source : | INERIS | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | PNEC AQUATIC | | | | | | | | | PNEC Sediment | | | | | |
| | | | freshwater | | | marine water | | | intermittent release | | | freshwater | | | marine water | | |
| | | | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | | | | | | | | | |

| Source : | INERIS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | Others | | | | | | | | | | | | |
| | | | PNEC soil | | | PNEC sewage treatment plant | | | PNEC air | | | PNEC secondary poisoning | | | |
| | | | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | | | | | | | |

### *8.2 Exposure controls*

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7
8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields ;
Skin protection:Gloves ;
Respiratory protection:Ensure adequate ventilation ;
Thermal hazards:
8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### *9.1 Information on basic physical and chemical properties*

Appearance

| | |
|---|---|
| Physical state | Liquid ; |
| Colour | Colorless ; |
| Odour | |
| Odour threshold (ppm) | |

| | Value | Concentration (mol/L) | Method | Temperature (°C) | Pressure (kPa) | Remark |
|---|---|---|---|---|---|---|
| pH | 7 | | | | | |
| Melting point (°C) | | | | | | |
| Freezing point (°C) | | | | | | |
| Initial boiling point/boiling range (°C) | | | | | | |
| Flash point (°C) | | | | | | |
| Evaporation rate (kg/m²/h) | | | | | | |
| Flammability (type : ) (%) | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Upper/lower flammability or explosive limits | Upper explosive limit (%) | | | | | | |
| | Lower explosive limit (%) | | | | | | |
| Vapour pressure (kPa) | | | | | | | |
| Vapour density (g/cm³) | | | | | | | |
| Densities | Density (g/cm³) | | | | | | |
| | Relative density (g/cm³) | | | | | | |
| | Bulk density (g/cm³) | | | | | | |
| | Critical density (g/cm³) | | | | | | |
| Solubility (Type : ) (g/L) | | | | | | | |
| Partition coefficient (log Pow) n-octanol/water at pH : | | | | | | | |
| Auto-ignition temperature (°C) | | | | | | | |
| Decomposition temperature (°C) Decomposition energy : kJ | | | | | | | |
| Viscosity | Viscosity, dynamic (poiseuille) | | | | | | |
| | Viscosity, cinematic (cm³/s) | | | | | | |
| Explosive properties | | | | | | | |
| Oxidising properties | | | | | | | |

### *9.2 Other information:*

No other relevant data available

## SECTION 10 : STABILITY AND REACTIVITY

### *10.1 Reactivity*

This material is considered to be non-reactive under normal use conditions. ;

### *10.2 Chemical stability*

### *10.3 Possibility of hazardous reactions*

### *10.4 Conditions to avoid:*

### *10.5 Incompatible materials:*

### *10.6 Hazardous decomposition products:*

Does not decompose when used for intended uses. ;

## SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution

### *11.1 Information on toxicological effects*

Substances

- **Acute toxicity**

Animal data:

Acute oral toxicity:

| Substance name | LD50 (mg/kg) | Species | Method | Symptoms / delayed effects | Remark |
|---|---|---|---|---|---|
| 9002-93-1 | 1800-1800 | Rat | | | |

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- **Skin corrosion/irritation**

Animal data:

| Substance name | Species | Method | Exposure time | Result/evaluation | Score | Remark |
|---|---|---|---|---|---|---|
| 9002-93-1 | | | | | | |

In-vitro skin test method:
In-vitro skin test result:

Assessment / Classification:

- **Eye damage/irritation**

Animal data:

| Substance name | Species | Method | Exposure time | Result/evaluation | Score | Remark |
|---|---|---|---|---|---|---|
| 9002-93-1 | Rabbit | | | Eye irritation | | |

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

  - Carcinogenicity

Practical experience / human evidence:

Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

## SECTION 12 : ECOLOGICAL INFORMATION

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for

mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

### *12.1 Aquatic toxicity:*

Acute (short-term) fish toxicity

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **LC50 (mg/L)** | **EC50 (mg/L)** | **Test duration** | **Species** | **Result/ Evaluation** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | 8,9 | | 96 | Pimephales promelas (fathead minnow) | | | | |

Chronic (long-term) fish toxicity

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **NOEC (mg/L)** | **Test duration** | **Species** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | | |

Acute (short-term) toxicity to crustacea

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **EC50 (mg/L)** | **Test duration** | **Species** | **Result/ Evaluation** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | 26 | 48 | | | | | |

Chronic (long-term) toxicity to crustacea

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **NOEC (mg/L)** | **Test duration** | **Species** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | | |

Acute (short-term) toxicity to algae and cyanobacteria

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **EC50 (mg/L)** | **Test duration** | **Species** | **Result/ Evaluation** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | | | |

Toxicity to microorganisms and other aquatic plants / organisms

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **EC50 (mg/L)** | **Species** | **Method** | **Remark** | **General Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | |

Assessment / Classification:

### *12.2 Persistence and degradability*

Biodegradation:

| Source : | Informations relatives à la réglementation VME (France) : ED 984, 07.2012 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Inoculum** | **Biodegradation parameter** | **Degradation rate (%)** | **Method** | **Remark** |
| 9002-93-1 | | 9002-93-1 | | BOD (% of COD). | 36-36 | | In accordance with the required stability the product is poorly biodegradable. |

Abiotic Degradation:

| Source : | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Abiotic degradation test type** | **Half-life time (j)** | **Temperature (°C)** | **pH** | **Method** | **Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | | |

Assessment / Classification:

### *12.3 Bioaccumulative potential*

Bioconcentration factor (BCF):

| Source : | | | | | | |
|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Species** | **Result** | **Method** | **Remark** |
| 9002-93-1 | | 9002-93-1 | | | | |

### *12.4 Mobility in soil*

| Source : | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC n°** | **CAS n°** | **Distribution** | **Transport type** | **Henry's law constant (Pa.m3/mol)** | **Log KOC** | **Half-life time in soil (j)** | **Half-life time in fresh water (j)** | **Half-life time in sea water (j)** | **Method** | **Remark** |
| 9002-93-1 | | 9002-93-1 | | | | | | | | | |

### *12.5 Results of PBT and vPvB assessment*

### *12.6 Other adverse effects:*

Additional ecotoxicological information:

## SECTION 13 : DISPOSAL CONSIDERATIONS

### *13.1 Waste treatment methods*

Waste treatment options:
Dispose of waste according to applicable legislation. ;

Other disposal recommendations:
Additional information:

## SECTION 14 : TRANSPORT INFORMATION

ADR/RID/AND/IMDG/IATA

| | |
|---|---|
| UN No. | |
| UN Proper shipping name | |
| Transport hazard class(es) | |
| Hazard label(s) | |
| Packing group | |

***Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code***

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No: Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing instructions for IMDG: IBC Instructions:
IBC Provisions: IMO tank instructions:
UN tank instructions: Tanks and bulk Provisions:
EmS : Stowage and segregation for IMDG:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage: Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity :
Passenger and Cargo Aircraft Packaging Instructions :
Passenger and Cargo Aircraft Maximal Net Quantity :
Cargo Aircraft only Packaging Instructions :

Cargo Aircraft only Maximal Net Quantity :
ERG code: Special Provisions for IATA:

## SECTION 15 : REGULATORY INFORMATION

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

### *15.2 Chemical Safety Assessment:*

For the following substances of this mixture a chemical safety assessment has been carried out :

## SECTION 16 : OTHER INFORMATION

### *16.1 Indication of changes*

Date of the previous version:06/09/2023
Modifications:

### *16.2 Abbreviations and acronyms:*

### *16.3 Key literature references and sources for data*

### *16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g):*

See SECTION 2.1 (classification).

### *16.5 Relevant R-, H- and EUH-phrases (number and full text):*

| Code | Hazard statments |
|---|---|
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage. |
| H400 | Very toxic to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |

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

### *1.1 Product identifier:*

**Designation / Trade name: HTRF B-arrestin 2 total kit - 20K pts d2 antibody**

CAS No.: Index No: EC No: REACH No:

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

Relevant identified uses: Use of the substance or mixture for Laboratory Research use only ;
Uses advised against: Do not use for diagnostics, therapeutics or other clinical uses. ;

### *1.3 Details of the supplier of the safety data sheet:*

Supplier:
Name: CISBIO BIOASSAYS, company of Revvity Group - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone : +33 4 66 79 67 05 - Fax : +33 4 66 79 67 50
E-Mail (competent person): codolet.sds@revvity.com

### *1.4 EMERGENCY TELEPHONE NUMBER:*

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59
Ce numéro permet d'obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d'appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
https://www.cisbio.com
https://www.revvity.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

## SECTION 2 : HAZARDS IDENTIFICATION

### *2.1 Classification of the substance or mixture:*

| Classification in accordance with 29 CFR 1910 (OSHA HCS) | Category code | Hazard statement | Precautionary statement |
|---|---|---|---|
| The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS) | None | None | None |

### *2.2 Label elements*

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: HTRF B-arrestin 2 total kit - 20K pts d2 antibody

Substances contained in this product:

Hazard pictograms

Signal word:

Hazard and precautionary statements:

***2.3 Other hazards***

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006. ;

Adverse human health effects:

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### *3.2 Mixtures*

Hazardous ingredients:

| Substance name | CAS n° | Index n° | EC n° | Classification in accordance with 29 CFR 1910 (OSHA HCS) | Concentration (%) | SCL | M-factor |
|---|---|---|---|---|---|---|---|
| 4-(2-hydroxyethyl)piperazin-1-ylethanesulphonic acid | 7365-45-9 | | 230-907-9 | | < 3% | | |

Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

## SECTION 4 : FIRST AID MEASURES

### *4.1 Description of first aid measures*

**General information**: Do not leave affected person unattended. ;
**Following inhalation**: In case of respiratory tract irritation, consult a physician. ;
**Following skin contact**:After contact with skin, wash immediately with water ;
**Following eye contact**: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
**Following ingestion**: Do NOT induce vomiting. ;
**Self-protection of the first aider**:

### *4.2 Most important symptoms and effects, both acute and delayed*

Symptoms: No known symptoms to date. ;
Effects:

### *4.3 Indication of any immediate medical attention and special treatment needed*

Notes for the doctor:

## SECTION 5 : FIREFIGHTING MEASURES

### *5.1 Extinguishing media:*

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire ;

### *5.2 Special hazards arising from the substance or mixture*

Hazardous combustion products: /

### *5.3 Advice for fire-fighters*

Wear Protective clothing. ;
Additional information:

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### *6.1 Personal precautions, protective equipment and emergency procedures*

Emergency procedures: Provide adequate ventilation. ;

### *6.2 Environmental precautions*

Do not allow to enter into surface water or drains. ;

### *6.3 Methods and material for containment and cleaning up*

For cleaning up: Suitable material for taking up: Absorbing material, organic ;
Other information:

### *6.4 Reference to other sections*

Additional information:

## SECTION 7 : HANDLING AND STORAGE

### *7.1 Precautions for safe handling*

Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes. ;
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ;
Advice on general occupational hygiene : Handle in accordance with good industrial hygiene and safety practice ;

### *7.2 Conditions for safe storage, including any incompatibilities*

Requirements for storage rooms and vessels: Keep container tightly closed. ;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

### *7.3 Specific end uses:*

Recommendations on specific end uses: Observe technical data sheet. ;

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### *8.1 Control parameters*

Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)

| Source : | Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELS) from 29 CFR 1910.1000 | | | | | |
|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)** | **OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m3)** | **OSHA Permissible Exposure Limit (PEL) STEL (ppm)** | **OSHA Permissible Exposure Limit (PEL) STEL (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | |

| Source : | TRGS 903, November 2015, BAuA | | | |
|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **BGW (mg/m3)** | **BGW (ppm)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | |

8.1.2 DNEL/PNEC-values:

- DNEL worker

| Source : | GESTIS – substance database | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Acute – dermal, local effects (mg/kg/day)** | **Long-term – dermal, local effects (mg/kg/day)** | **Long-term – dermal, systemic effects (mg/kg/day)** | **Acute – inhalation, local effects (mg/m3)** | **Acute – inhalation, systemic effects (mg/m3)** | **Long-term – inhalation, local effects (mg/m3)** | **Long-term – inhalation, systemic effects (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | 23.5-23.5 | | |

- DNEL consumer

| Source : | GESTIS – substance database | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Acute – dermal, local effects (mg/kg/day)** | **Long-term – dermal, local effects (mg/kg/day)** | **Long-term – dermal, systemic effects (mg/kg/day)** | **Acute – inhalation, local effects (mg/m3)** | **Acute – inhalation, systemic effects (mg/m3)** | **Long-term – inhalation, local effects (mg/m3)** | **Long-term – inhalation, systemic effects (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | |

- PNEC

| Source : | INERIS | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | PNEC AQUATIC | | | | | | | | | PNEC Sediment | | | | |
| | | | freshwater | | | marine water | | | intermittent release | | | freshwater | | | marine water | |
| | | | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | | | | | | | | |

| Source : | INERIS |
|---|---|

| Substance | EC-No. | CAS-No | Others | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PNEC soil | | | PNEC sewage treatment plant | | | PNEC air | | | PNEC secondary poisoning | | |
| | | | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | | | | | | |

### *8.2 Exposure controls*

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7
8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields ;
Skin protection:Gloves ;
Respiratory protection:Ensure adequate ventilation ;
Thermal hazards:
8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### *9.1 Information on basic physical and chemical properties*

Appearance

| | |
|---|---|
| Physical state | Liquid ; |
| Colour | Blue ; |
| Odour | |
| Odour threshold (ppm) | |

| | | Value | Concentration (mol/L) | Method | Temperature (°C) | Pressure (kPa) | Remark |
|---|---|---|---|---|---|---|---|
| pH | | 7 | | | | | |
| Melting point (°C) | | | | | | | |
| Freezing point (°C) | | | | | | | |
| Initial boiling point/boiling range (°C) | | | | | | | |
| Flash point (°C) | | | | | | | |
| Evaporation rate (kg/m²/h) | | | | | | | |
| Flammability (type : ) (%) | | | | | | | |
| Upper/lower flammability or explosive limits | Upper explosive limit (%) | | | | | | |
| | Lower explosive limit (%) | | | | | | |
| Vapour pressure (kPa) | | | | | | | |
| Vapour density (g/cm³) | | | | | | | |
| Densities | Density (g/cm³) | | | | | | |
| | Relative density (g/cm³) | | | | | | |
| | Bulk density (g/cm³) | | | | | | |
| | Critical density (g/cm³) | | | | | | |
| Solubility (Type : ) (g/L) | | | | | | | |
| Partition coefficient (log Pow) n-octanol/water at pH : | | | | | | | |
| Auto-ignition temperature (°C) | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Decomposition temperature (°C)<br>Decomposition energy : kJ | | | | | | | |
| Viscosity | Viscosity, dynamic (poiseuille) | | | | | | |
| | Viscosity, cinematic ($cm^3/s$) | | | | | | |
| Explosive properties | | | | | | | |
| Oxidising properties | | | | | | | |

***9.2 Other information:***

No other relevant data available

## SECTION 10 : STABILITY AND REACTIVITY

***10.1 Reactivity***

This material is considered to be non-reactive under normal use conditions. ;

***10.2 Chemical stability***

***10.3 Possibility of hazardous reactions***

***10.4 Conditions to avoid:***

***10.5 Incompatible materials:***

***10.6 Hazardous decomposition products:***

Does not decompose when used for intended uses. ;

## SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution

***11.1 Information on toxicological effects***

Substances

- **Acute toxicity**

Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- **Skin corrosion/irritation**

Animal data:

In-vitro skin test method:
In-vitro skin test result:

Assessment / Classification:

- **Eye damage/irritation**

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

  - Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

  - STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

## SECTION 12 : ECOLOGICAL INFORMATION

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

***12.1 Aquatic toxicity:***

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

***12.2 Persistence and degradability***

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

***12.3 Bioaccumulative potential***

Bioconcentration factor (BCF):

***12.4 Mobility in soil***

***12.5 Results of PBT and vPvB assessment***

***12.6 Other adverse effects:***

Additional ecotoxicological information:

## SECTION 13 : DISPOSAL CONSIDERATIONS

***13.1 Waste treatment methods***

Waste treatment options:
Dispose of waste according to applicable legislation. ;

Other disposal recommendations:
Additional information:

## SECTION 14 : TRANSPORT INFORMATION

ADR/RID/AND/IMDG/IATA

| | |
|---|---|
| UN No. | |
| UN Proper shipping name | |
| Transport hazard class(es) | |
| Hazard label(s) | |
| Packing group | |

***Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code***

Land transport (ADR/RID)

Classification code ADR:
Special Provisions for ADR/RID:
Limited quantities for ADR/RID:
Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions:
Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code:
ADR Tank special provisions:
Vehicle for tank carriage:
Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No:
Transport category (Tunnel restriction code):

Sea transport (IMDG)

| | |
|---|---|
| Marine Pollutant: | Subsidiary risk(s) for IMDG: |
| Packing provisions for IMDG: | Limited quantities for IMDG: |
| Packing instructions for IMDG: | IBC Instructions: |
| IBC Provisions: | IMO tank instructions: |
| UN tank instructions: | Tanks and bulk Provisions: |
| EmS : | Stowage and segregation for IMDG: |
| Properties and observations: | |

Inland waterway transport (ADN)

| | |
|---|---|
| Classification Code ADN: | Special Provisions ADN: |
| Limited quantities ADN: | Excepted quantities ADN: |
| Carriage permitted: | Equipment required: |
| Provisions concerning loading and unloading: | |
| Provisions concerning carriage: | Number of blue cones/lights: |
| Remark: | |

Air transport (ICAO-TI / IATA-DGR)

| | |
|---|---|
| Subsidiary risk for IATA: | Excepted quantity for IATA: |
| Passenger and Cargo Aircraft Limited Quantities Packing Instructions: | |
| Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity : | |
| Passenger and Cargo Aircraft Packaging Instructions : | |
| Passenger and Cargo Aircraft Maximal Net Quantity : | |
| Cargo Aircraft only Packaging Instructions : | |
| Cargo Aircraft only Maximal Net Quantity : | |
| ERG code: | Special Provisions for IATA: |

## SECTION 15 : REGULATORY INFORMATION

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

***15.2 Chemical Safety Assessment:***

For the following substances of this mixture a chemical safety assessment has been carried out :

## SECTION 16 : OTHER INFORMATION

***16.1 Indication of changes***

Date of the previous version:07/09/2023
Modifications:

***16.2 Abbreviations and acronyms:***

***16.3 Key literature references and sources for data***

***16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g):***

See SECTION 2.1 (classification).

***16.5 Relevant R-, H- and EUH-phrases (number and full text):***

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

### *1.1 Product identifier:*

**Designation / Trade name: HTRF B-arrestin 2 total kit - 20K pts Eu Cryptate antibody**

CAS No.: Index No: EC No: REACH No:

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

Relevant identified uses: Use of the substance or mixture for Laboratory Research use only ;
Uses advised against: Do not use for diagnostics, therapeutics or other clinical uses. ;

### *1.3 Details of the supplier of the safety data sheet:*

Supplier:
Name: CISBIO BIOASSAYS, company of Revvity Group - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone : +33 4 66 79 67 05 - Fax : +33 4 66 79 67 50
E-Mail (competent person): codolet.sds@revvity.com

### *1.4 EMERGENCY TELEPHONE NUMBER:*

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59
Ce numéro permet d'obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d'appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
https://www.cisbio.com
https://www.revvity.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

## SECTION 2 : HAZARDS IDENTIFICATION

### *2.1 Classification of the substance or mixture:*

| Classification in accordance with 29 CFR 1910 (OSHA HCS) | Category code | Hazard statement | Precautionary statement |
|---|---|---|---|
| The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS) | None | None | None |

### *2.2 Label elements*

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: HTRF B-arrestin 2 total kit - 20K pts Eu Cryptate antibody

Substances contained in this product:

Hazard pictograms

Signal word:

Hazard and precautionary statements:

### *2.3 Other hazards*

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006. ;

Adverse human health effects:

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### *3.2 Mixtures*

Hazardous ingredients:

| Substance name | CAS n° | Index n° | EC n° | Classification in accordance with 29 CFR 1910 (OSHA HCS) | Concentration (%) | SCL | M-factor |
|---|---|---|---|---|---|---|---|
| 4-(2-hydroxyethyl)piperazin-1-ylethanesulphonic acid | 7365-45-9 | | 230-907-9 | | < 3% | | |

Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

## SECTION 4 : FIRST AID MEASURES

### *4.1 Description of first aid measures*

**General information**: Do not leave affected person unattended. ;
**Following inhalation**: In case of respiratory tract irritation, consult a physician. ;
**Following skin contact**:After contact with skin, wash immediately with water ;
**Following eye contact**: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
**Following ingestion**: Do NOT induce vomiting. ;
**Self-protection of the first aider**:

### *4.2 Most important symptoms and effects, both acute and delayed*

Symptoms: No known symptoms to date. ;
Effects:

### *4.3 Indication of any immediate medical attention and special treatment needed*

Notes for the doctor:

## SECTION 5 : FIREFIGHTING MEASURES

### *5.1 Extinguishing media:*

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire ;

### *5.2 Special hazards arising from the substance or mixture*

Hazardous combustion products: /

### *5.3 Advice for fire-fighters*

Wear Protective clothing. ;
Additional information:

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### *6.1 Personal precautions, protective equipment and emergency procedures*

Emergency procedures: Provide adequate ventilation. ;

### *6.2 Environmental precautions*

Do not allow to enter into surface water or drains. ;

### *6.3 Methods and material for containment and cleaning up*

For cleaning up: Suitable material for taking up: Absorbing material, organic ;
Other information:

### *6.4 Reference to other sections*

Additional information:

## SECTION 7 : HANDLING AND STORAGE

### *7.1 Precautions for safe handling*

Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes. ;
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ;
Advice on general occupational hygiene : Handle in accordance with good industrial hygiene and safety practice ;

### *7.2 Conditions for safe storage, including any incompatibilities*

Requirements for storage rooms and vessels: Keep container tightly closed. ;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

### *7.3 Specific end uses:*

Recommendations on specific end uses: Observe technical data sheet. ;

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### *8.1 Control parameters*

Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)

| Source : | Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELS) from 29 CFR 1910.1000 | | | | | |
|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)** | **OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m3)** | **OSHA Permissible Exposure Limit (PEL) STEL (ppm)** | **OSHA Permissible Exposure Limit (PEL) STEL (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | |

| Source : | TRGS 903, November 2015, BAuA | | | |
|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **BGW (mg/m3)** | **BGW (ppm)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | |

8.1.2 DNEL/PNEC-values:

- DNEL worker

| Source : | GESTIS – substance database | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Acute – dermal, local effects (mg/kg/day)** | **Long-term – dermal, local effects (mg/kg/day)** | **Long-term – dermal, systemic effects (mg/kg/day)** | **Acute – inhalation, local effects (mg/m3)** | **Acute – inhalation, systemic effects (mg/m3)** | **Long-term – inhalation, local effects (mg/m3)** | **Long-term – inhalation, systemic effects (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | 23.5-23.5 | | |

- DNEL consumer

| Source : | GESTIS – substance database | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Acute – dermal, local effects (mg/kg/day)** | **Long-term – dermal, local effects (mg/kg/day)** | **Long-term – dermal, systemic effects (mg/kg/day)** | **Acute – inhalation, local effects (mg/m3)** | **Acute – inhalation, systemic effects (mg/m3)** | **Long-term – inhalation, local effects (mg/m3)** | **Long-term – inhalation, systemic effects (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | |

- PNEC

| Source : | INERIS | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | PNEC AQUATIC | | | | | | | | | PNEC Sediment | | | | |
| | | | freshwater | | | marine water | | | intermittent release | | | freshwater | | | marine water | |
| | | | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | | | | | | | | |

| Source : | INERIS |
|---|---|

| Substance | EC-No. | CAS-No | Others | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PNEC soil | | | PNEC sewage treatment plant | | | PNEC air | | | PNEC secondary poisoning | | |
| | | | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | | | | | | |

### *8.2 Exposure controls*

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7
8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields ;
Skin protection:Gloves ;
Respiratory protection:Ensure adequate ventilation ;
Thermal hazards:
8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### *9.1 Information on basic physical and chemical properties*

Appearance

| | |
|---|---|
| Physical state | Liquid ; |
| Colour | Colorless ; |
| Odour | |
| Odour threshold (ppm) | |

| | | Value | Concentration (mol/L) | Method | Temperature (°C) | Pressure (kPa) | Remark |
|---|---|---|---|---|---|---|---|
| pH | | 7 | | | | | |
| Melting point (°C) | | | | | | | |
| Freezing point (°C) | | | | | | | |
| Initial boiling point/boiling range (°C) | | | | | | | |
| Flash point (°C) | | | | | | | |
| Evaporation rate (kg/m²/h) | | | | | | | |
| Flammability (type : ) (%) | | | | | | | |
| Upper/lower flammability or explosive limits | Upper explosive limit (%) | | | | | | |
| | Lower explosive limit (%) | | | | | | |
| Vapour pressure (kPa) | | | | | | | |
| Vapour density (g/cm³) | | | | | | | |
| Densities | Density (g/cm³) | | | | | | |
| | Relative density (g/cm³) | | | | | | |
| | Bulk density (g/cm³) | | | | | | |
| | Critical density (g/cm³) | | | | | | |
| Solubility (Type : ) (g/L) | | | | | | | |
| Partition coefficient (log Pow) n-octanol/water at pH : | | | | | | | |
| Auto-ignition temperature (°C) | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Decomposition temperature (°C)<br>Decomposition energy : kJ | | | | | | | |
| Viscosity | Viscosity, dynamic (poiseuille) | | | | | | |
| | Viscosity, cinematic ($cm^3/s$) | | | | | | |
| Explosive properties | | | | | | | |
| Oxidising properties | | | | | | | |

***9.2 Other information:***

No other relevant data available

## SECTION 10 : STABILITY AND REACTIVITY

***10.1 Reactivity***

This material is considered to be non-reactive under normal use conditions. ;

***10.2 Chemical stability***

***10.3 Possibility of hazardous reactions***

***10.4 Conditions to avoid:***

***10.5 Incompatible materials:***

***10.6 Hazardous decomposition products:***

Does not decompose when used for intended uses. ;

## SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution

***11.1 Information on toxicological effects***

Substances

- **Acute toxicity**

Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- **Skin corrosion/irritation**

Animal data:

In-vitro skin test method:
In-vitro skin test result:

Assessment / Classification:

- **Eye damage/irritation**

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

  - Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

  - STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

## SECTION 12 : ECOLOGICAL INFORMATION

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

***12.1 Aquatic toxicity:***

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

***12.2 Persistence and degradability***

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

***12.3 Bioaccumulative potential***

Bioconcentration factor (BCF):

***12.4 Mobility in soil***

***12.5 Results of PBT and vPvB assessment***

***12.6 Other adverse effects:***

Additional ecotoxicological information:

## SECTION 13 : DISPOSAL CONSIDERATIONS

***13.1 Waste treatment methods***

Waste treatment options:
Dispose of waste according to applicable legislation. ;

Other disposal recommendations:
Additional information:

## SECTION 14 : TRANSPORT INFORMATION

ADR/RID/AND/IMDG/IATA

| | |
|---|---|
| UN No. | |
| UN Proper shipping name | |
| Transport hazard class(es) | |
| Hazard label(s) | |
| Packing group | |

***Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code***

Land transport (ADR/RID)

Classification code ADR:
Special Provisions for ADR/RID:
Limited quantities for ADR/RID:
Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions:
Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code:
ADR Tank special provisions:
Vehicle for tank carriage:
Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No:
Transport category (Tunnel restriction code):

Sea transport (IMDG)

| | |
|---|---|
| Marine Pollutant: | Subsidiary risk(s) for IMDG: |
| Packing provisions for IMDG: | Limited quantities for IMDG: |
| Packing instructions for IMDG: | IBC Instructions: |
| IBC Provisions: | IMO tank instructions: |
| UN tank instructions: | Tanks and bulk Provisions: |
| EmS : | Stowage and segregation for IMDG: |
| Properties and observations: | |

Inland waterway transport (ADN)

| | |
|---|---|
| Classification Code ADN: | Special Provisions ADN: |
| Limited quantities ADN: | Excepted quantities ADN: |
| Carriage permitted: | Equipment required: |
| Provisions concerning loading and unloading: | |
| Provisions concerning carriage: | Number of blue cones/lights: |
| Remark: | |

Air transport (ICAO-TI / IATA-DGR)

| | |
|---|---|
| Subsidiary risk for IATA: | Excepted quantity for IATA: |
| Passenger and Cargo Aircraft Limited Quantities Packing Instructions: | |
| Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity : | |
| Passenger and Cargo Aircraft Packaging Instructions : | |
| Passenger and Cargo Aircraft Maximal Net Quantity : | |
| Cargo Aircraft only Packaging Instructions : | |
| Cargo Aircraft only Maximal Net Quantity : | |
| ERG code: | Special Provisions for IATA: |

## SECTION 15 : REGULATORY INFORMATION

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

***15.2 Chemical Safety Assessment:***

For the following substances of this mixture a chemical safety assessment has been carried out :

## SECTION 16 : OTHER INFORMATION

***16.1 Indication of changes***

Date of the previous version:07/09/2023
Modifications:

***16.2 Abbreviations and acronyms:***

***16.3 Key literature references and sources for data***

***16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g):***

See SECTION 2.1 (classification).

***16.5 Relevant R-, H- and EUH-phrases (number and full text):***

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

### *1.1 Product identifier:*

**Designation / Trade name: HTRF P-T prot. - Detect. Buf. 50 mL**

CAS No.: Index No: EC No: REACH No:

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

Relevant identified uses: Use of the substance or mixture for Laboratory Research use only ;
Uses advised against: Do not use for diagnostics, therapeutics or other clinical uses. ;

### *1.3 Details of the supplier of the safety data sheet:*

Supplier:
Name: CISBIO BIOASSAYS, company of Revvity Group - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone : +33 4 66 79 67 05 - Fax : +33 4 66 79 67 50
E-Mail (competent person): codolet.sds@revvity.com

### *1.4 EMERGENCY TELEPHONE NUMBER:*

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59
Ce numéro permet d'obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d'appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
https://www.cisbio.com
https://www.revvity.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

## SECTION 2 : HAZARDS IDENTIFICATION

### *2.1 Classification of the substance or mixture:*

| Classification in accordance with 29 CFR 1910 (OSHA HCS) | Category code | Hazard statement | Precautionary statement |
|---|---|---|---|
| The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS) | None | None | None |

### *2.2 Label elements*

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: HTRF P-T prot. - Detect. Buf. 50 mL

Substances contained in this product:

Hazard pictograms

Signal word:

Hazard and precautionary statements:

### *2.3 Other hazards*

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006. ;

Adverse human health effects:

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### *3.2 Mixtures*

Hazardous ingredients:

| Substance name | CAS n° | Index n° | EC n° | Classification in accordance with 29 CFR 1910 (OSHA HCS) | Concentration (%) | SCL | M-factor |
|---|---|---|---|---|---|---|---|
| potassium fluoride | 7789-23-3 | 009-005-00-2 | 232-151-5 | Acute toxicity - Acute Tox. 3 - H301 - Oral<br>Acute toxicity - Acute Tox. 3 - H311 - Dermal<br>Acute toxicity - Acute Tox. 3 - H331 - Inhalation | | | |
| 4-(2-hydroxyethyl)piperazin-1-ylethanesulphonic acid | 7365-45-9 | | 230-907-9 | | | | |

Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

## SECTION 4 : FIRST AID MEASURES

### *4.1 Description of first aid measures*

**General information**: Do not leave affected person unattended. ;
**Following inhalation**: In case of respiratory tract irritation, consult a physician. ;
**Following skin contact**:After contact with skin, wash immediately with water ;
**Following eye contact**: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
**Following ingestion**: Do NOT induce vomiting. ;
**Self-protection of the first aider**:

### *4.2 Most important symptoms and effects, both acute and delayed*

Symptoms: No known symptoms to date. ;
Effects:

### *4.3 Indication of any immediate medical attention and special treatment needed*

Notes for the doctor:

## SECTION 5 : FIREFIGHTING MEASURES

### *5.1 Extinguishing media:*

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire ;

### *5.2 Special hazards arising from the substance or mixture*

Hazardous combustion products: /

### *5.3 Advice for fire-fighters*

Wear Protective clothing. ;

Additional information:

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### *6.1 Personal precautions, protective equipment and emergency procedures*

Emergency procedures: Provide adequate ventilation. ;

### *6.2 Environmental precautions*

Do not allow to enter into surface water or drains. ;

### *6.3 Methods and material for containment and cleaning up*

For cleaning up: Suitable material for taking up: Absorbing material, organic ;
Other information:

### *6.4 Reference to other sections*

Additional information:

## SECTION 7 : HANDLING AND STORAGE

### *7.1 Precautions for safe handling*

Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes. ;
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ;
Advice on general occupational hygiene : Handle in accordance with good industrial hygiene and safety practice ;

### *7.2 Conditions for safe storage, including any incompatibilities*

Requirements for storage rooms and vessels: Keep container tightly closed. ;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

### *7.3 Specific end uses:*

Recommendations on specific end uses: Observe technical data sheet. ;

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### *8.1 Control parameters*

Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)

| Source : | Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELS) from 29 CFR 1910.1000 | | | | | |
|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)** | **OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m3)** | **OSHA Permissible Exposure Limit (PEL) STEL (ppm)** | **OSHA Permissible Exposure Limit (PEL) STEL (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | |
| 7789-23-3 / 232-151-5 | 232-151-5 | 7789-23-3 | | | | |

| Source : | TRGS 903, November 2015, BAuA | | | |
|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **BGW (mg/m3)** | **BGW (ppm)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | |
| 7789-23-3 / 232-151-5 | 232-151-5 | 7789-23-3 | | |

8.1.2 DNEL/PNEC-values:

- DNEL worker

| Source : | GESTIS – substance database | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Acute – dermal, local effects (mg/kg/day)** | **Long-term – dermal, local effects (mg/kg/day)** | **Long-term – dermal, systemic effects (mg/kg/day)** | **Acute – inhalation, local effects (mg/m3)** | **Acute – inhalation, systemic effects (mg/m3)** | **Long-term – inhalation, local effects (mg/m3)** | **Long-term – inhalation, systemic effects (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | 23.5-23.5 | | |
| 7789-23-3 / 232-151-5 | 232-151-5 | 7789-23-3 | | | | 3-3 | 3-3 | | |

- DNEL consumer

| Source : | GESTIS – substance database | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | **Acute – dermal, local effects (mg/kg/day)** | **Long-term – dermal, local effects (mg/kg/day)** | **Long-term – dermal, systemic effects (mg/kg/day)** | **Acute – inhalation, local effects (mg/m3)** | **Acute – inhalation, systemic effects (mg/m3)** | **Long-term – inhalation, local effects (mg/m3)** | **Long-term – inhalation, systemic effects (mg/m3)** |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | |
| 7789-23-3 / 232-151-5 | 232-151-5 | 7789-23-3 | | | | | | | |

- PNEC

| Source : | INERIS | | | |
|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | PNEC AQUATIC | PNEC Sediment |

| | | | freshwater | | | marine water | | | intermittent release | | | freshwater | | | marine water | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | | | | | | | | | |
| 7789-23-3 / 232-151-5 | 232-151-5 | 7789-23-3 | | | | | | | | | | | | | | | |

| Source : | INERIS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Substance** | **EC-No.** | **CAS-No** | Others | | | | | | | | | | | | |
| | | | PNEC soil | | | PNEC sewage treatment plant | | | PNEC air | | | PNEC secondary poisoning | | | |
| | | | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | (mg/L) | (mg/kg) | (ppm) | |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 | | | | | | | | | | | | | |
| 7789-23-3 / 232-151-5 | 232-151-5 | 7789-23-3 | | | | | | | | | | | | | |

### *8.2 Exposure controls*

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7
8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields ;
Skin protection:Gloves ;
Respiratory protection:Ensure adequate ventilation ;
Thermal hazards:
8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### *9.1 Information on basic physical and chemical properties*

Appearance

| | |
|---|---|
| Physical state | Liquid ; |
| Colour | Colorless ; |
| Odour | |
| Odour threshold (ppm) | |

| | Value | Concentration (mol/L) | Method | Temperature (°C) | Pressure (kPa) | Remark |
|---|---|---|---|---|---|---|
| pH | 7 | | | | | |
| Melting point (°C) | | | | | | |
| Freezing point (°C) | | | | | | |
| Initial boiling point/boiling range (°C) | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Flash point (°C) | | | | | | | |
| Evaporation rate (kg/m²/h) | | | | | | | |
| Flammability (type : ) (%) | | | | | | | |
| Upper/lower flammability or explosive limits | Upper explosive limit (%) | | | | | | |
| | Lower explosive limit (%) | | | | | | |
| Vapour pressure (kPa) | | | | | | | |
| Vapour density (g/cm³) | | | | | | | |
| Densities | Density (g/cm³) | | | | | | |
| | Relative density (g/cm³) | | | | | | |
| | Bulk density (g/cm³) | | | | | | |
| | Critical density (g/cm³) | | | | | | |
| Solubility (Type : ) (g/L) | | | | | | | |
| Partition coefficient (log Pow) n-octanol/water at pH : | | | | | | | |
| Auto-ignition temperature (°C) | | | | | | | |
| Decomposition temperature (°C) Decomposition energy : kJ | | | | | | | |
| Viscosity | Viscosity, dynamic (poiseuille) | | | | | | |
| | Viscosity, cinematic (cm³/s) | | | | | | |
| Explosive properties | | | | | | | |
| Oxidising properties | | | | | | | |

### *9.2 Other information:*

No other relevant data available

## SECTION 10 : STABILITY AND REACTIVITY

### *10.1 Reactivity*

This material is considered to be non-reactive under normal use conditions. ;

### *10.2 Chemical stability*

### *10.3 Possibility of hazardous reactions*

### *10.4 Conditions to avoid:*

### *10.5 Incompatible materials:*

### *10.6 Hazardous decomposition products:*

Does not decompose when used for intended uses. ;

## SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution

### *11.1 Information on toxicological effects*

Substances

- **Acute toxicity**

Animal data:
Acute oral toxicity:

| Substance name | LD50 (mg/kg) | Species | Method | Symptoms / delayed effects | Remark |
|---|---|---|---|---|---|
| 7789-23-3 / 232-151-5 | 245-245 | Rat | | | |

Acute dermal toxicity:

| Substance name | LD50 (mg/kg) | Species | Method | Remark |
|---|---|---|---|---|
| 7789-23-3 / 232-151-5 | | | | |

Acute inhalative toxicity:

| Substance name | C(E)L50 (mg/L) | Exposure time | Species | Method | Remark |
|---|---|---|---|---|---|
| 7789-23-3 / 232-151-5 | | | | | |

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- **Skin corrosion/irritation**

Animal data:

In-vitro skin test method:
In-vitro skin test result:

Assessment / Classification:

- **Eye damage/irritation**

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

## SECTION 12 : ECOLOGICAL INFORMATION

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

***12.1 Aquatic toxicity:***

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

***12.2 Persistence and degradability***

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

***12.3 Bioaccumulative potential***

Bioconcentration factor (BCF):

***12.4 Mobility in soil***

***12.5 Results of PBT and vPvB assessment***

***12.6 Other adverse effects:***

Additional ecotoxicological information:

## SECTION 13 : DISPOSAL CONSIDERATIONS

***13.1 Waste treatment methods***

Waste treatment options:
Dispose of waste according to applicable legislation. ;

Other disposal recommendations:

Additional information:

## SECTION 14 : TRANSPORT INFORMATION

ADR/RID/AND/IMDG/IATA

| | |
|---|---|
| UN No. | |
| UN Proper shipping name | |
| Transport hazard class(es) | |
| Hazard label(s) | |
| Packing group | |

***Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code***

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No: Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing instructions for IMDG: IBC Instructions:
IBC Provisions: IMO tank instructions:
UN tank instructions: Tanks and bulk Provisions:
EmS : Stowage and segregation for IMDG:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage: Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity :
Passenger and Cargo Aircraft Packaging Instructions :
Passenger and Cargo Aircraft Maximal Net Quantity :
Cargo Aircraft only Packaging Instructions :
Cargo Aircraft only Maximal Net Quantity :
ERG code: Special Provisions for IATA:

## SECTION 15 : REGULATORY INFORMATION

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

***15.2 Chemical Safety Assessment:***

For the following substances of this mixture a chemical safety assessment has been carried out :

## SECTION 16 : OTHER INFORMATION

***16.1 Indication of changes***

Date of the previous version:09/09/2023
Modifications:

***16.2 Abbreviations and acronyms:***

***16.3 Key literature references and sources for data***

***16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g):***

See SECTION 2.1 (classification).

***16.5 Relevant R-, H- and EUH-phrases (number and full text):***