

Safety Data Sheet

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

Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

Version: US, Page 1 of 12, Revision date: 12/07/2021



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

1.1 Product identifier:

Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

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 - CBBIOA -

Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France

Phone : +33 4 66 9 67 05 - Fax : +33 4 66 79 67 50

E-Mail (competent person):  msds@cisbio.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)

<http://www.cisbio.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: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

Substances contained in this product:

Safety Data Sheet

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

Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF
Version: US, Page 2 of 12, Revision date: 12/07/2021



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) $\geq 0.1\%$ 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:

Safety Data Sheet

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

Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

Version: US, Page 3 of 12, Revision date: 12/07/2021



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
sodium chloride	7647-14-5		231-598-3		< 10%		
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:

Safety Data Sheet

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

Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

Version: US, Page 4 of 12, Revision date: 12/07/2021



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)

Safety Data Sheet

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



Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4DFD
Version: US, Page 5 of 12, Revision date: 12/07/2021

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				
7647-14-5 / 231-598-3	231-598-3	7647-14-5				

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			
7647-14-5 / 231-598-3	231-598-3	7647-14-5			

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		
7647-14-5 / 231-598-3	231-598-3	7647-14-5					2068.62-2068.62		

- 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							
7647-14-5 / 231-598-3	231-598-3	7647-14-5							

- 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)

Safety Data Sheet

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



Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

Version: US, Page 6 of 12, Revision date: 12/07/2021

7365-45-9 / 230-907-9	230-907-9	7365-45-9																		
7647-14-5 / 231-598-3	231-598-3	7647-14-5																		

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																		
7647-14-5 / 231-598-3	231-598-3	7647-14-5																		

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	
Colour	
Odour	
Odour threshold (ppm)	

	Value	Concentration (mol/L)	Method	Temperature (°C)	Pressure (kPa)	Remark
pH						
Melting point (°C)						
Freezing point (°C)						
Initial boiling point/boiling range (°C)						
Flash point (°C)						
Evaporation rate (kg/m ² /h)						
Flammability (type :) (%)						
Upper/lower flammability or explosive	Upper explosive limit (%)					

Safety Data Sheet

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

Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

Version: US, Page 7 of 12, Revision date: 12/07/2021



limits	Lower explosive limit (%)						
Vapour pressure (kPa)							
Vapour density (g/cm ³)							
Densities	Density (g/cm ³)						
	Relative density (g/cm ³)						
	Bulk density (g/cm ³)						
	Critical density (g/cm ³)						
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 (cm ² /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:

Safety Data Sheet

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

Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF
Version: US, Page 8 of 12, Revision date: 12/07/2021



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 (carcinogenicity, 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)**

Safety Data Sheet

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

Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

Version: US, Page 9 of 12, Revision date: 12/07/2021



-
- 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:

Safety Data Sheet

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

Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

Version: US, Page 10 of 12, Revision date: 12/07/2021



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:

Safety Data Sheet

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



Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

Version: US, Page 11 of 12, Revision date: 12/07/2021

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:29/06/2021

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).

Safety Data Sheet

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

Designation / Trade name: Stimulation buffer 4 (5X) - 200 mL 64SB4FDF

Version: US, Page 12 of 12, Revision date: 12/07/2021



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