

Useable for:

SP A-1000 STAINPerfect immunostaining Kit A
SP-T-0001 STAINperfect Neurotransmitters – Trial pack

Single components with dangerous ingredients:

REF: *SP A-1005* *Fixation Reagent*

REF: *SP A-1008* *Stabilization Reagent*

Not listed single components contains no hazardous substances in concentrations to be declared, a labelling is not required.

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

- **Product identifier**
- **Trade name:** Fixation Reagent
- **Article number:** SP A-1005
- **Application of the substance / the preparation:** laboratory reagent / Immunoassay
The product is intended for professional use.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
ImmuSmol
PTIB, Hopital Xavier Arnozan
Avenue du Haut Leveque
33600 PESSAC, FRANCE
Phone +33 5 47 30 27 72
E-mail contact@immusmol.com

2 Hazards identification

Classification of the substance or mixture



GHS05 corrosion

H318 Causes serious eye damage.



GHS08 health hazard

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled



GHS07

H332 Harmful if inhaled.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R20/22: Harmful by inhalation and if swallowed.



Xi; Irritant

R37/38-41: Irritating to respiratory system and skin. Risk of serious damage to eyes.



Xn; Sensitising

R42/43: May cause sensitisation by inhalation and skin contact.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Label elements

GHS label elements

The product is classified and labelled according to the Globally Harmonized System (GHS).

Hazard pictograms GHS05, GHS07, GHS08

Signal word Danger

Hazard-determining components of labelling: glutaral

Hazard statements H332 Harmful if inhaled. H315 Causes skin irritation.

Trade name: Fixation Reagent

H318 Causes serious eye damage. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317 May cause an allergic skin reaction.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures Preparation

Description: Trade secret (Reagent mixture)

Relevant phrases

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H400 Very toxic to aquatic life.

R23/25 Toxic by inhalation and if swallowed.

R34 Causes burns.

R42/43 May cause sensitisation by inhalation and skin contact.

R50 Very toxic to aquatic organisms.

4 First aid measures

Description of first aid measures

General information

Personal protection for the First Aider.

After inhalation

Supply fresh air or oxygen; call for doctor.

After skin contact

Immediately remove any clothing soiled by the product. Rinse with warm water.

Dab with polyethylene glycol 400. Seek medical treatment.

After eye contact

Rinse opened eye for several minutes under running water. Call a doctor immediately.

After swallowing *Do not induce vomiting; call for medical help immediately. Do not attempt to neutralize.*

Information for doctor

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** Non-combustible. Formation of toxic gases is possible during heating or in case of fire. In case of fire, the following can be released: carbon oxides (CO, CO₂).
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device
- **Additional information:** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Contain escaping vapours with water.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Avoid substance contact.
Do not inhale steams/aerosols. Ensure adequate ventilation
- **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Clean up affected area.
- **Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Open receptacle only under localized extractor facilities. Store receptacle in a well ventilated area.
Store under lock and key and with access restricted to technical experts or their assistants only.
- **Recommended storage temperature:** 2-8°C
- **Storage class:** 6.1 B
- **Specific end use(s)** No further relevant information available.

Trade name: Fixation Reagent

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Limit values that require monitoring at the workplace:**

Short-term value: 0.2 mg/m³, 0.05 ppm

Long-term value: 0.2 mg/m³, 0.05 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately. Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:** Protective gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
The quality of the protective gloves must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed goggles.
- **Body protection:** lab coat



9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:

Liquid

· Colour:

Colourless

· Odour:

Odourless

· Odour threshold:

Not determined

· pH-value at 20°C:

Not determined

· Change in condition

· Melting point/Melting range:

Undetermined

· Boiling point/Boiling range:

Undetermined

· Flash point:

Not applicable

· Flammability (solid, gaseous)

Not applicable

· Ignition temperature:

425°C

· Decomposition temperature:

Not determined

· Self-igniting:

Product is not self-igniting.

· Danger of explosion:

Not determined

· Explosion limits (lower, upper):

Not determined

· Vapour pressure:

Not determined

· Density at 20°C:

Not determined

· Relative density

Not determined

· Vapour density

Not determined

· Evaporation rate

Not determined

· Solubility in / Miscibility with Water:

Fully miscible

· Segregation coefficient (n-octanol/water):

Not determined

· Viscosity:

Not determined

· dynamic:

Not determined

· kinematic:

Not determined

· Solvent content:

· Organic solvents:

0 %

· Other information

No further relevant information available.

10 Stability and reactivity

· Reactivity

· Chemical stability

· Thermal decomposition / conditions to be avoided: Heating

· Possibility of hazardous reactions Violent reactions possible with: amines, strong oxidants, strong acids

· Conditions to avoid No further relevant information available.

· Incompatible materials: No further relevant information available.

· Hazardous decomposition products: In the event of fire: See chapter 5

· Additional information: Incompatible with: various metals

Trade name: Fixation Reagent

11 Toxicological information

Information on toxicological effects

- **Acute toxicity:**
- **LD/LC50 values relevant for classification:**

Oral	LD50	134 mg/kg (rat)
Dermal	LD50	2560 mg/kg (rabbit)
- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:**
 - Sensitization possible through inhalation.
 - Sensitization possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

Harmful
Irritant

12 Ecological information

- **Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow to enter waters, waste water, or soil.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**

Chemicals must be disposed of in compliance with the respective national regulations. Must not be disposed together with household garbage. Do not allow product to reach sewage system
- **Uncleaned packaging:**
- **Recommendation:**

Disposal must be made according to official regulations. Packagings that may not be cleansed are to be disposed of in the same manner as the product.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

Trade name: Fixation Reagent

14 Transport information

- **UN-Number** Void
- **UN proper shipping name** Void
- **Transport hazard class(es)** Void
- **Packing group** Void
- **IMDG** Void
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information** Not dangerous according to the above specifications. This product is part of a kit. Information in this section refers to the kit as a whole.
- **ADR/ AND / IMDG / IATA**
- **Remarks:** No dangerous good in sense of this transport regulation.

15 Regulatory information

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship

- **Relevant phrases**
 - H301 Toxic if swallowed.
 - H314 Causes severe skin burns and eye damage.
 - H317 May cause an allergic skin reaction.
 - H331 Toxic if inhaled.
 - H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H400 Very toxic to aquatic life.
 - R23/25 Toxic by inhalation and if swallowed.
 - R34 Causes burns.
 - R42/43 May cause sensitisation by inhalation and skin contact.
 - R50 Very toxic to aquatic organisms.
- **Department issuing MSDS:** Safety Representative
- **Contact:** ImmuSmol

Trade name: Fixation Reagent

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

- **Product identifier**
- **Trade name:** Stabilization Reagent
- **Article number:** SP A-1008
- **Application of the substance / the preparation:** laboratory reagent / Immunoassay
The product is intended for professional use.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
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PTIB, Hopital Xavier Arnozan
Avenue du Haut Leveque
33600 PESSAC, FRANCE
Phone +33 5 47 30 27 72
E-mail contact@immusmol.com

2 Hazards identification

Classification of the substance or mixture



GHS02 flame



GHS05 corrosion

H314 Causes severe skin burns and eye damage.



GHS06

H301 + H311 Toxic if swallowed or in contact with skin

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



T; Toxic

R24/25-35: Toxic in contact with skin and if swallowed.
Causes severe burns.



F; Highly flammable

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Label elements

GHS label elements

The product is classified and labelled according to the Globally Harmonized System (GHS).

Hazard pictograms GHS02, GHS05, GHS06

Signal word Danger

Hazard statements Causes severe skin burns and eye damage. Toxic if swallowed or in contact with skin

Precautionary statements

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309 + P310 IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

Other hazards None known.

Trade name: Reducing Concentrate

3 Composition/information on ingredients

- **Chemical characterization: Mixtures** Preparation
- **Description:** Mixture consisting of the following components.

16940-66-2	Sodium borohydride	F, Highly flammable; R15 T, Toxic; R24/25 C, Corrosive; R35
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- **Additional information**
For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **Description of first aid measures**
- **General information**
Immediately remove any clothing soiled by the product
- **After inhalation**
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact**
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**
Rinse out with plenty of water. Immediately call in ophthalmologist.
- **After swallowing**
Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **Most important symptoms and effects, both acute and delayed**
Irritation and corrosion, Cough, Shortness of breath, Vomiting, Headache, CNS disorders Risk of corneal clouding.
The following applies to boron compounds in general: resorption is followed by nausea and vomiting, agitation (>, <)> spasms, CNS disorders, cardiovascular disorders.
Risk of blindness!
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
Combustible material
Forms explosive mixtures with air at elevated temperatures.
Development of hazardous combustion gases or vapours possible in the event of fire. May not get in touch with: Water
Caution! in contact with water product releases: Hydrogen
- **Advice for firefighters**
- **Protective equipment:** Stay in danger area only with self-contained breathing apparatus.
Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

Trade name: Stabilization Reagent

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Advice for non-emergency personnel: Avoid substance contact. Avoid inhalation of dusts. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
- **Environmental precautions:**
Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
*Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).
Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.*
- **Reference to other sections**
See Section 13 for disposal information

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
Keep workplace dry. Do not allow product to come into contact with water.
- **Conditions for safe storage, including any incompatibilities** *Tightly closed. Dry. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorised persons.*
- **Storage** *Not required.*
- **Specific end use(s)** *No further relevant information available.*

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** *No further data; see item 7.*
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:** *The lists valid during the making were used as basis.*
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:** *Protective gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.*



Trade name: Stabilization Reagent

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The quality of the protective gloves must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Tightly sealed goggles.



· **Body protection:** lab coat

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance**

· **Form:**

Granular

· **Colour**

White

· **Odour**

No data available

· **Odour threshold**

No data available

· **pH**

No data available

· **Melting point/freezing point**

> 300°C - dec

· **Initial boiling point & boiling range**

No data available

· **Flash point**

No data available

· **Evaporation rate**

No data available

· **Flammability**

No data available

· **Upper/lower flammability or explosive limits**

Lower explosion limit: 3,02% (V)

· **Vapour pressure**

Product does not present an explosion hazard.

· **Vapour density**

No data available

· **Relative density**

Not applicable

· **Water solubility**

55g/L at 25°C - soluble

· **Partition coefficient: n-octanol/water**

No data available

· **Auto-ignition temperature**

No data available

· **Decomposition temperature**

No data available

· **Viscosity**

No data available

· **Explosive properties**

No data available

· **Oxidizing properties**

No data available

· **Bulk density**

1,074kg/m³ at 20°C

Trade name: Stabilization Reagent

10 Stability and reactivity

- **Reactivity** No data available
- **Chemical stability** stable under recommended storage conditions
- **Possibility of hazardous reactions** Reacts violently with water
- **Conditions to avoid** Exposure to moisture
- **Incompatible materials:** Oxidizing agents, Chemically active metals, acids
- **Hazardous decomposition products:** Reacts with water to form: Hydrogen gas. In the event of fire: see section 5

11 Toxicological information

Information on toxicological effects

- **Acute toxicity:**

Oral	LD50	162 mg/kg (IUCLID)
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- **Primary irritant effect:**
- **on the skin:** Causes severe burns.
- **on the eye:** Causes serious eye damage. Risk of blindness! Risk of corneal clouding
- **Sensitization:** No sensitizing effects known.
- **Further information :**
Decomposition of the substance with tissue moisture. After absorption:
CNS disorders, Headache Other information
The following applies to boron compounds in general: resorption is followed by
nausea and vomiting, agitation (>,<) spasms, CNS disorders, cardiovascular
disorders. Other dangerous properties cannot be excluded.
Handle in accordance with good industrial hygiene and safety practice.

12 Ecological information

- **Toxicity**
- **Acquatic toxicity:** Toxicity to fish.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **Biological effects:**
Forms toxic mixtures in water, dilution measures notwithstanding.
Further information on ecology
Discharge into the environment must be avoided.

Trade name: Stabilization Reagent

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**

Dispose of waste according to applicable local, state, and federal regulations.

· **Uncleaned packaging:**

· **Recommendation:**

Dispose of packaging according to applicable local, state, and federal regulations.

· **Recommended cleansing agents:**

Water, if necessary together with cleansing agents.

14 Transport information

- **UN-Number** 1426
- **UN proper shipping name** SODIUM BOROHYDRIDE
- **Transport hazard class(es)** 4.3
- **Packing group** I
- **IMDG** I
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Not applicable.
- The transport regulations are cited according to international regulations and in the form applicable in Germany. Possible national deviations in other countries are not considered.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **GHS label elements**
The product is classified and labelled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS02, GHS05, GHS06
- **Signal word** Danger
- **Hazard-determining components of labelling:**
SODIUM BOROHYDRIDE
- **Hazard statements**
Causes severe skin burns and eye damage.
- **Occupational restrictions**
Take note of Dir 94/33/EC on the protection of young people at work.
Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.
- **National regulations**
- **Storage class:** 4.3
- **Chemical safety assessment:** For this product a chemical safety assessment was not carried out.

Trade name: Stabilization Reagent

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship

· **Relevant phrases**

- H260 In contact with water releases flammable gases which may ignite spontaneously.*
- H301 Toxic if swallowed.*
- H311 Toxic in contact with skin.*
- H314 Causes severe skin burns and eye damage.*
- R15 Contact with water liberates extremely flammable gases.*
- R24/25 Toxic in contact with skin and if swallowed*
- R35 Causes severe burns.*

· **Department issuing MSDS:** Safety Representative

· **Contact:** ImmUSmol

Trade name: Stabilization Reagent