

Kit components

Product code	Description
FR-9367	JB-2 Staining System FR-9367

Components:

13805357	JB-2 Gel Stain Concentrate
13805360	JB-2 Stain Buffer
13805363	JB-2 Stain Activator

Safety data Sheet in accordance with SANS

Printing date 24.04.2024

Version number 8

Revision: 24.04.2024

1 Identification of the substance or mixture and of the supplier

- **Product identifier**
- **Trade name:** *JB-2 Gel Stain Concentrate*
- **Article number:** 13805357
- **Recommended use of the chemical and restrictions on use**
- **Product category** PC21 Laboratory chemicals
- **Application of the substance / the mixture**
In vitro diagnostics
Laboratory chemicals
- **Supplier's details**
- **Manufacturer/Supplier:**
Revvity Inc.
Wallac Oy
P.O. Box 10
FI-20101 Turku
Finland
+358 2 2678 111
- **Further information obtainable from:**
Product safety department.
MSDS_Turku@revvity.com
- **Emergency phone number**
CHEMTREC (whithin U.S.) 800 424-9300
CHEMTREC (from outside U.S.) +1-703-572-3887

2 Hazard identification

- **Classification of the substance or mixture**



flammable

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



toxic

Acute Tox. 3 H331 Toxic if inhaled.



chronic health hazard

Carc. 1A H350 May cause cancer.

STOT SE 1 H370 Causes damage to the central nervous system and the visual organs.

- **GHS label elements**
- **GHS label elements**

The product is labelled according to the IVD regulation

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

(Contd. on page 2)

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 8

Revision: 24.04.2024

Trade name: **JB-2 Gel Stain Concentrate**

(Contd. of page 1)

· **Hazard pictograms**

GHS02 GHS06 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labelling:***methanol**3,3'-dimethoxybiphenyl-4,4'-ylenediammoniumdichloride*· **Hazard statements***Highly flammable liquid and vapour.**Toxic if inhaled.**May cause cancer.**Causes damage to the central nervous system and the visual organs.*· **Precautionary statements***Keep away from heat/sparks/open flames/hot surfaces. No smoking.**Use explosion-proof electrical/ventilating/lighting equipment.**Do not breathe dust/fume/gas/mist/vapours/spray.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

3 Composition or information on ingredients

· **Chemical characterisation:** *Mixtures*· **Description:** *Mixture of substances listed below with nonhazardous additions.*· **Dangerous components:**

67-56-1	<i>methanol</i>	95-100%
⚠ <i>Flam. Liq. 2, H225; ⚠ <i>Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ <i>STOT SE 1, H370</i> <i>Specific concentration limits: STOT SE 1; H370: C ≥ 10 %</i> <i>STOT SE 2; H371: 3 % ≤ C < 10 %</i> </i></i>		
20325-40-0	<i>3,3'-dimethoxybiphenyl-4,4'-ylenediammoniumdichloride</i>	≥0.1-<1%
⚠ <i>Acute Tox. 3, H301; ⚠ <i>Carc. 1A, H350</i> </i>		

· **Additional information:** *For the wording of the listed hazard phrases refer to section 16.*

4 First-aid measures

· **Description of necessary first-aid measures**· **General information:***Immediately remove any clothing soiled by the product.**Remove breathing equipment only after contaminated clothing have been completely removed.**In case of irregular breathing or respiratory arrest provide artificial respiration.*· **After inhalation:***Supply fresh air or oxygen; call for doctor.**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 opened eye for several minutes under running water. Then consult a doctor.*· **After swallowing:** *If symptoms persist consult doctor.*

(Contd. on page 3)

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 8

Revision: 24.04.2024

Trade name: JB-2 Gel Stain Concentrate

(Contd. of page 2)

- **Information for doctor:**
- **Most important symptoms or effects, acute and delayed** No further relevant information available.
- **Indication of immediate medical attention and special treatment needed, if necessary**
No further relevant information available.

5 Fire-fighting measures

- **Suitable extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Specific hazards arising from the chemical** During heating or in case of fire poisonous gases are produced.
- **Special protective actions for fire fighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Prevent seepage into sewage system, workpits and cellars.
Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **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.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls or personal protection

- **Additional information about design of technical facilities:** No further data; see section 7.

(Contd. on page 4)

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 8

Revision: 24.04.2024

Trade name: **JB-2 Gel Stain Concentrate**

(Contd. of page 3)

- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

- **67-56-1 methanol**

OEL (South Africa)	Short-term value: 500 ppm Long-term value: 400 ppm SKIN
IOELV (EU)	Long-term value: 260 mg/m ³ , 200 ppm Skin

- **Additional information:** The lists valid during the making were used as basis.

- **Exposure controls**

- **Individual protection measures, such as personal protective equipment (PPE)**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

- **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.

- **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 or face protection**



Tightly sealed goggles

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Solution

Colour: Transparent

- **Odour:** Alcohol-like

- **Odour threshold:** Not determined.

(Contd. on page 5)

Safety data Sheet in accordance with SANS

Printing date 24.04.2024

Version number 8

Revision: 24.04.2024

Trade name: **JB-2 Gel Stain Concentrate**

(Contd. of page 4)

· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	-98 °C
Initial boiling point and boiling range	64 °C
· Flash point:	11 °C
· Flammability (solid, gas):	Highly flammable.
· Auto-ignition temperature:	455 °C
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Upper or lower flammability or explosive limits	
Lower:	5.5 Vol %
Upper:	44 Vol %
· Vapour pressure at 20 °C:	128 hPa
· Density at 20 °C:	0.8 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol or water	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Viscosity	Not determined.
· Solvent content:	
Organic solvents:	99.3 %
Solids content:	0.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

ZA

(Contd. on page 6)

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 8

Revision: 24.04.2024

Trade name: **JB-2 Gel Stain Concentrate**

(Contd. of page 5)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**

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

67-56-1 methanol

Oral	LD50	5,628 mg/kg (rat)
Dermal	LD50	15,800 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion or irritation** No irritant effect.
- **Serious eye damage or irritation** No irritating effect.
- **Respiratory and skin sensitization** No sensitising effects known.
- **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:
Toxic
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Carc. 1A

12 Ecological information

- **Toxicity**
- **Aquatic 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 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Danger to drinking water if even extremely small quantities leak into the ground.
- **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**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Hand over to hazardous waste disposers.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- **UN number**
- **ADR, IMDG, IATA** UN1230

(Contd. on page 7)

ZA

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 8

Revision: 24.04.2024

Trade name: **JB-2 Gel Stain Concentrate**

(Contd. of page 6)

· **UN proper shipping name**
 · **ADR** 1230 METHANOL solution
 · **IMDG, IATA** METHANOL solution

· **Transport hazard class(es)**
 · **ADR**



· **Class** 3 Flammable liquids.
 · **Label** 3+6.1

· **IMDG**



· **Class** 3 Flammable liquids.
 · **Label** 3/6.1

· **IATA**



· **Class** 3 Flammable liquids.
 · **Label** 3 (6.1)

· **Packing group**
 · **ADR, IMDG, IATA** II

· **Environmental hazards:**
 · **Marine pollutant:** Not applicable

· **Special precautions for user** Warning: Flammable liquids.
 · **Hazard identification number (Kemler code):** 336
 · **EMS Number:** F-E,S-D
 · **Stowage Category** B
 · **Stowage Code** SW2 Clear of living quarters.

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

· **Transport/Additional information:**

· **ADR**
 · **Limited quantities (LQ)** 1L
 · **Excepted quantities (EQ)** Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml
 · **Transport category** 2
 · **Tunnel restriction code** D/E

· **IMDG**
 · **Limited quantities (LQ)** 1L
 · **Excepted quantities (EQ)** Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml

(Contd. on page 8)

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 8

Revision: 24.04.2024

Trade name: **JB-2 Gel Stain Concentrate**

(Contd. of page 7)

· UN "Model Regulation":

UN 1230 METHANOL SOLUTION, 3 (6.1), II

15 Regulatory information

- **Safety, health and environmental regulations specific for the product in question**
- **GHS label elements**
The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS02 GHS06 GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
methanol
3,3'-dimethoxybiphenyl-4,4'-ylenediammoniumdichloride
- **Hazard statements**
Highly flammable liquid and vapour.
Toxic if inhaled.
May cause cancer.
Causes damage to the central nervous system and the visual organs.
- **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Use explosion-proof electrical/ventilating/lighting equipment.
Do not breathe dust/fume/gas/mist/vapours/spray.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** *None of the ingredients is listed.*
- **Seveso category**
H2 ACUTE TOXIC
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** *50 t*
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** *200 t*
- **National regulations:**
- **Additional classification according to Decree on Hazardous Materials, Annex II:**
Carcinogenic hazardous material group I (extremely dangerous).
Carcinogenic hazardous material group II (very dangerous).
Carcinogenic hazardous material group III (dangerous).
- **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.
- **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**
H225 Highly flammable liquid and vapour.

(Contd. on page 9)

ZA

Safety data Sheet in accordance with SANS

Printing date 24.04.2024

Version number 8

Revision: 24.04.2024

Trade name: JB-2 Gel Stain Concentrate

(Contd. of page 8)

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

H350 May cause cancer.

H370 Causes damage to organs.

H371 May cause damage to organs.

· **Department issuing SDS:** Product safety department.

· **Contact:** MSDS_Turku@revvity.com

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Carc. 1A: Carcinogenicity – Category 1A

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

ZA

Safety data Sheet in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

1 Identification of the substance or mixture and of the supplier

- **Product identifier**
- **Trade name:** JB-2 Stain Buffer
- **Article number:** 13805360
- **Recommended use of the chemical and restrictions on use**
- **Product category** PC21 Laboratory chemicals
- **Application of the substance / the mixture**
In vitro diagnostics
Laboratory chemicals
- **Supplier's details**
- **Manufacturer/Supplier:**
Revvity Inc.
Wallac Oy
P.O. Box 10
FI-20101 Turku
Finland
+358 2 2678 111
- **Further information obtainable from:**
Product safety department.
MSDS_Turku@revvity.com
- **Emergency phone number**
CHEMTREC (within U.S.) 800 424-9300
CHEMTREC (from outside U.S.) +1-703-572-3887

2 Hazard identification

- **Classification of the substance or mixture**
The product is not classified, according to the Globally Harmonised System (GHS).

- **GHS label elements**
- **GHS label elements** The product is labelled according to the IVD regulation
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition or information on ingredients

- **Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

5949-29-1	1,2,3-Propanetricarboxylic acid, 2-hydroxy-, monohydrate	2.5-5%
	⚠ Serious eye damage/irritation – Category 2A, H319; Acute Tox. 5, H303	

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

ZA

(Contd. on page 2)

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

Trade name: *JB-2 Stain Buffer*

(Contd. of page 1)

4 First-aid measures

- **Description of necessary first-aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms or effects, acute and delayed** No further relevant information available.
- **Indication of immediate medical attention and special treatment needed, if necessary**
No further relevant information available.

5 Fire-fighting measures

- **Suitable extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Specific hazards arising from the chemical** No further relevant information available.
- **Special protective actions for fire fighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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** No special measures required.
- **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:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls or personal protection

- **Additional information about design of technical facilities:** No further data; see section 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.

(Contd. on page 3)

ZA

Safety data Sheet in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

Trade name: **JB-2 Stain Buffer**

(Contd. of page 2)

- **Exposure controls**
- **Individual protection measures, such as personal protective equipment (PPE)**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Protection of hands:**
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.
- **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 or face protection** Goggles recommended during refilling

9 Physical and chemical properties

- | | |
|--|---|
| · Information on basic physical and chemical properties | |
| · General Information | |
| · Appearance: | |
| Form: | Liquid |
| Colour: | Colourless |
| Odour: | Sulfurous |
| Odour threshold: | Not determined. |
| pH-value at 20 °C: | 4-6 |
| · Change in condition | |
| Melting point/freezing point: | Undetermined. |
| Initial boiling point and boiling range | Undetermined. |
| Flash point: | Not applicable. |
| Flammability (solid, gas): | Not applicable. |
| Decomposition temperature: | Not determined. |
| Ignition temperature: | Product is not selfigniting. |
| Explosive properties: | Product does not present an explosion hazard. |
| · Upper or lower flammability or explosive limits | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| Vapour pressure at 20 °C: | 23 hPa |
| Density at 20 °C: | 1.1 g/cm ³ |
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Evaporation rate | Not determined. |
| Solubility in / Miscibility with water: | Fully miscible. |
| Partition coefficient: n-octanol or water | Not determined. |

(Contd. on page 4)

ZA

Safety data Sheet in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

Trade name: JB-2 Stain Buffer

(Contd. of page 3)

· Viscosity:	
Dynamic:	Not determined.
Viscosity	Not determined.
· Solvent content:	
Water:	88.3 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion or irritation** No irritant effect.
- **Serious eye damage or irritation** No irritating effect.
- **Respiratory and skin sensitization** No sensitising effects known.
- **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- **Toxicity**
- **Aquatic 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 1 (German Regulation) (Self-assessment): slightly hazardous for water
- **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** Smaller quantities can be disposed of with household waste.

(Contd. on page 5)

ZA

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

Trade name: **JB-2 Stain Buffer**

(Contd. of page 4)

- **Uncleaned packaging:**
- **Recommendation:** Hand over to hazardous waste disposers.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- | | |
|---|-----------------|
| · UN number | Void |
| · ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | Void |
| · ADR, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | Void |
| · ADR, ADN, IMDG, IATA | Void |
| · Class | Void |
| · Packing group | Void |
| · ADR, IMDG, IATA | Void |
| · Environmental hazards: | |
| · Marine pollutant: | Not applicable |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

15 Regulatory information

- **Safety, health and environmental regulations specific for the product in question**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **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**
H303 May be harmful if swallowed.
H319 Causes serious eye irritation.
- **Department issuing SDS:** Product safety department.
- **Contact:** MSDS_Turku@revvity.com
- **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic

(Contd. on page 6)

ZA

Safety data Sheet
in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

Trade name: JB-2 Stain Buffer*vPvB: very Persistent and very Bioaccumulative**Acute Tox. 5: Acute toxicity – Category 5**Serious eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A*

(Contd. of page 5)

ZA

Safety data Sheet in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

1 Identification of the substance or mixture and of the supplier

- **Product identifier**
- **Trade name:** JB-2 Stain Activator
- **Article number:** 13805363
- **Recommended use of the chemical and restrictions on use**
- **Product category** PC21 Laboratory chemicals
- **Application of the substance / the mixture**
In vitro diagnostics
Laboratory chemicals
- **Supplier's details**
- **Manufacturer/Supplier:**
Revvity Inc.
Wallac Oy
P.O. Box 10
FI-20101 Turku
Finland
+358 2 2678 111
- **Further information obtainable from:**
Product safety department.
MSDS_Turku@revvity.com
- **Emergency phone number**
CHEMTREC (whithin U.S.) 800 424-9300
CHEMTREC (from outside U.S.) +1-703-572-3887

2 Hazard identification

- **Classification of the substance or mixture**
The product is not classified, according to the Globally Harmonised System (GHS).
- **GHS label elements**
- **GHS label elements** The product is labelled according to the IVD regulation
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition or information on ingredients

- **Chemical characterisation:** Mixtures
- **Description:** Mixture of substances listed below with nonhazardous additions.

(Contd. on page 2)

ZA

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

Trade name: **JB-2 Stain Activator**

(Contd. of page 1)

· Dangerous components:

hydrogen peroxide

≥2.5- <5%

⚠ Ox. Liq. 1, H271; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332

Specific concentration limits: Ox. Liq. 1; H271: $C \geq 70\%$

Ox. Liq. 2; H272: $50\% \leq C < 70\%$

Skin Corr. 1A; H314: $C \geq 70\%$

Skin Corr. 1B; H314: $50\% \leq C < 70\%$

Skin Irrit. 2; H315: $35\% \leq C < 50\%$

Eye Dam. 1; H318: $C \geq 8\%$

Eye Irrit. 2; H319: $5\% \leq C < 8\%$

STOT SE 3; H335: $C \geq 35\%$

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- **Description of necessary first-aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms or effects, acute and delayed** No further relevant information available.
- **Indication of immediate medical attention and special treatment needed, if necessary**
No further relevant information available.

5 Fire-fighting measures

- **Suitable extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Specific hazards arising from the chemical** No further relevant information available.
- **Special protective actions for fire fighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
No dangerous substances are released.
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** No special measures required.
- **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.

(Contd. on page 3)

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

Trade name: *JB-2 Stain Activator*

(Contd. of page 2)

- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *None.*
- **Specific end use(s)** *No further relevant information available.*

8 Exposure controls or personal protection

- **Additional information about design of technical facilities:** *No further data; see section 7.*
- **Control parameters**

· Ingredients with limit values that require monitoring at the workplace:
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hydrogen peroxide

OEL (South Africa) Long-term value: 2 ppm

- **Additional information:** *The lists valid during the making were used as basis.*

- **Exposure controls**

- **Individual protection measures, such as personal protective equipment (PPE)**

- **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

- **Respiratory protection:** *Not required.*

- **Protection of hands:**

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.

- **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 or face protection** *Goggles recommended during refilling*

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	<i>Solution</i>
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Colour:	<i>According to product specification</i>
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- **Odour:** *Characteristic*

- **Odour threshold:** *Not determined.*

· pH-value at 20 °C:	<i>4</i>
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- **Change in condition**

Melting point/freezing point:	<i>0 °C</i>
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Initial boiling point and boiling range	<i>100 °C</i>
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- **Flash point:** *Not applicable.*

- **Flammability (solid, gas):** *Not applicable.*

- **Decomposition temperature:** *Not determined.*

- **Ignition temperature:** *Product is not selfigniting.*

(Contd. on page 4)

Safety data Sheet in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

Trade name: **JB-2 Stain Activator**

(Contd. of page 3)

· Explosive properties:	Product does not present an explosion hazard.
· Upper or lower flammability or explosive limits	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density at 20 °C:	1.01 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol or water	Not determined.
· Viscosity:	
Dynamic at 20 °C:	0.952 mPas
Viscosity	Not determined.
· Solvent content:	
Water:	97.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion or irritation** No irritant effect.
- **Serious eye damage or irritation** No irritating effect.
- **Respiratory and skin sensitization** No sensitising effects known.
- **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- **Toxicity**
- **Aquatic 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.

(Contd. on page 5)

ZA

Safety data Sheet in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

Trade name: **JB-2 Stain Activator**

(Contd. of page 4)

- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- **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** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Hand over to hazardous waste disposers.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- | | |
|---|-----------------|
| · UN number | Void |
| · ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | Void |
| · ADR, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | |
| · ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · Packing group | Void |
| · ADR, IMDG, IATA | Void |
| · Environmental hazards: | |
| · Marine pollutant: | Not applicable |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

15 Regulatory information

- **Safety, health and environmental regulations specific for the product in question**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **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.

(Contd. on page 6)

Safety data Sheet

in accordance with SANS

Printing date 24.04.2024

Version number 7

Revision: 24.04.2024

Trade name: JB-2 Stain Activator

(Contd. of page 5)

· Relevant phrases*H271 May cause fire or explosion; strong oxidiser.**H272 May intensify fire; oxidiser.**H302 Harmful if swallowed.**H314 Causes severe skin burns and eye damage.**H315 Causes skin irritation.**H318 Causes serious eye damage.**H319 Causes serious eye irritation.**H332 Harmful if inhaled.**H335 May cause respiratory irritation.***· Department issuing SDS:** Product safety department.**· Contact:** MSDS_Turku@revvity.com**· Abbreviations and acronyms:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Ox. Liq. 1: Oxidizing liquids – Category 1**Acute Tox. 4: Acute toxicity – Category 4**Skin Corr. 1A: Skin corrosion/irritation – Category 1A*

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