

Chorus Legionella pneumophila 1 IgG (REF 81091 and REF 81091/12) kit is an immunoenzymatic method for the qualitative determination of IgG-class antibodies to Legionella pneumophila serotype 1 in human serum, using a disposable device applied on the Chorus and Chorus TRIO instruments.

REF 81091: each package contains 6 bags with 6 devices each (sufficient for 36 determinations of total).

REF 81091/12: each package contains 2 bags with 6 devices each (sufficient for 12 determinations of total).

Each kit consists of:

DEVICE

Position 8: Space for application of bar code label

Position 7: Empty

Position 6: MICROPLATE WELL
Coated with Legionella pneumophila serotype 1 antigen.

Position 5: MICROPLATE WELL
Uncoated

Position 4: TMB SUBSTRATE 0.400 ml
The mixture is not classified as dangerous according to Regulation 1272/2008 and does not contain hazardous substances and/or with limit values for exposure in concentrations above the established limits.
For this mixture, according to EC Regulation 1907/2006, is not necessary to develop a material safety data sheet.
Contents: Tetramethylbenzidine 0.26 mg/ml and H₂O₂ 0.01% stabilized in 0.05 mol/L citrate buffer (pH 3.8)

Position 3: SAMPLE DILUENT 0.350 ml
The mixture is not classified as dangerous according to Regulation 1272/2008 and does not contain hazardous substances and/or with limit values for exposure in concentrations above the established limits.
For this mixture, according to EC Regulation 1907/2006, is not necessary to develop a material safety data sheet.
Contents: Proteic solution containing phenol 0.05%, Bronidox 0.02% and an indicator to reveal the presence of the serum

Position 2: CONJUGATE 0.350 ml
The mixture is not classified as dangerous according to Regulation 1272/2008 and does not contain hazardous substances and/or with limit values for exposure in concentrations above the established limits.
For this mixture, according to EC Regulation 1907/2006, is not necessary to develop a material safety data sheet.
Contents: Monoclonal antibodies anti-human IgG labelled with peroxidase in phosphate buffer containing phenol 0.05% and Bronidox 0.02%.

Position 1: EMPTY WELL
In which the operator must place the undiluted serum

CALIBRATOR

CALIBRATOR 0.175 ml

Contents: Diluted human serum, at known antibody concentration, containing Proclin and Gentamycin. Liquid, ready for use.

POSITIVE CONTROL

CONTROL + 0.425 ml

Contents: Diluted human serum, at known antibody concentration, containing Proclin and Gentamycin. Liquid, ready for use.

Both mixtures are classified as **dangerous** according to Regulation 1272/2008/EC.

For these mixtures the material safety data sheet, prepared in accordance with EC Regulation 1907/2006, is available below.



MATERIAL SAFETY DATA SHEET

CALIBRATOR/POSITIVE CONTROL

(According to Regulation (EC) No. 1907/2006)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIERS

Product name: CALIBRATOR/POSITIVE CONTROL

Product code: PF30154-C1 (CALIBRATOR); PF30154-C2 (POSITIVE CONTROL)

Brand: DIESSE

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCES OR MIXTURE AND USES ADVISED AGAINST

Identified use: Professional use as laboratory reagent.
Calibrator: diluted human serum, necessary for the calibration of the instrument.
Positive Control: diluted human serum, used to verify the correctness of the obtained results and for the subsequent validation of the test.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: DIESSE Diagnostica Senese S.p.A

| | |
|--|--|
| <u>Registered office:</u> Via A. Solari 19 20144 Milan, Italy Tel: +39 02 4859121 Fax: +39 02 48008530 | <u>Production plant:</u> Strada dei Laghi, 39 53035 Monteriggioni (SIENA), Italy Tel: +39 0577 307100 e-mail: contatti@diesse.it |
|--|--|

1.4 EMERGENCY TELEPHONE NUMBER

Emergency number: Centro Antiveleni, Ospedale Niguarda Ca' Granda - Milan
Tel: +39 02 66101029

Centro Antiveleni, Azienda Ospedaliera "S.G.Battista" – Molinette di Torino - Turin
Tel: +39 011 6637637

Centro Antiveleni – U.O. Tossicologia Medica, Azienda Ospedaliera Careggi – Florence
Tel: +39 055 4277238

Centro Antiveleni, Policlinico A. Gemelli – Università Cattolica del Sacro Cuore - Rome
Tel: +39 06 3054343

Centro Antiveleni, Azienda Ospedaliera A. Cardarelli – Naples
Tel: +39 081 7472870

2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCES OR MIXTURE

Classification according to Regulation (EC) No. 1272/2008: Acute Toxicity – Category 4 (Oral)
Skin Sensitizer– Category 1

Hazard statement: H302 – Harmful if swallowed
H317 – May cause an allergic skin reaction.

2.2 LABEL ELEMENTS

Pictograms: GHS07

Signal word: Caution

Hazard statement(s):
H302 – Harmful if swallowed
H317 – May cause an allergic skin reaction.

Precautionary statement(s):

Prevention:

P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 – Wash ... thoroughly after handling

P272 – Contaminated work clothing should not be allowed out of the workplace.

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

Response:

P301+P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P302+P352 – IF ON SKIN: Wash with plenty of soap and water.

P330 – Rinse mouth

P333+P313 – If skin irritation or rash occurs: Get medical advice/attention.

P363 – Wash contaminated clothing before reuse.

Disposal:

P501 – Dispose of contents/container in accordance with local regulation

Contains:

Ethylene glycol

Index. No: 603-027-00-1

Reaction mass of: 5-chloro-2-methyl-4-iso-thiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1);

Index No: 613-167-00-5

2.3 OTHER HAZARDS

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Not applicable



3.2 Mixtures

| International Chemical Identification | Concentration | Classification Regulation EC/1272/2008 | |
|--|---------------|---|--|
| Ethylene glycol Cas No 107-21-1 EC No 203-473-3 Index No 603-027-00-1 | 25-35% | Acute Tox. 4 | H302 |
| Reaction mass of: 5-chloro-2-methyl-4-iso-thiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1); Cas No 55965-84-9 Index No 613-167-00-5 | 0.0015-0.06% | Acute Tox. 3 Acute Tox. 3 Acute Tox. 3 Skin Corr. 1B Skin Sens. 1 Aquatic Acute 1 Aquatic Chronic 1 | H331 H311 H301 H314 H317 H400 H410 |

The entire text of Hazard Statements is reported at Section 16 of the sheet.

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

| | |
|-----------------|---|
| General advice: | Move the person from the exposure to open air. In case of needs consult a physician immediately and show this Material Safety Datasheet. Eyewash and shower for the treatment of emergency have to be present in the workplace. |
| Skin contact: | Wear off the contaminated clothes and wash with copious amounts of water (for at least 15 minutes). If irritation persists consult a physician. |
| Eye contact: | If present, remove immediately contact lenses. Wash with plenty of water (for at least 15 minutes), keeping eyelids opened. Consult an oculist if the irritation persists. |
| Inhalation: | Move the person from the exposure to open air. If irritation occurs consult a physician. |
| Ingestion: | Rinse mouth immediately and drink a copious amount of water. Call a physician immediately. Do not cause vomiting. |

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS

Ingestion of the product can cause nausea, vomiting and CNS disorders

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No data available, other than point 4.1

5. FIREFIGHTING MEASURES

5.1 EXTINGUISH MEDIA

| | |
|-----------------------------------|---|
| Suitable extinguishing media: | Use extinguishing measures (CO ₂ , foam, dry powder, water) that are appropriate to local circumstances and the surrounding environment. |
| Not Suitable extinguishing media: | None |

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

The mixture is not flammable, however in case of fire may release irritating and/or toxic gases.

5.3 ADVICE FOR FIREFIGHTERS

Wear appropriate personal protective equipment and clothing. In case of fire, wear self-contained breathing apparatus and avoid that fire extinguishing water contaminates surface water and/or groundwater.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Avoid the contact with skin and eyes and evacuate the area, keeping people not involved in the intervention operations away. Ensure an adequate ventilation of the affected area.

Do not handle damaged containers or the leaked product before wearing appropriate protective outfit.

6.2 ENVIRONMENTAL PRECAUTIONS

Avoid the contamination of surface water, soil and the dispersion in the air. Do not let product enter into drains. Discharge into the environment must be avoided.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Contain the leakages with earth and sand. Collect the spilled material and store it in suitable containers for disposal. Use water only to remove residuals, to avoid the danger of spill of product into the sewers.

6.4 REFERENCE TO OTHER SECTIONS

For further information see section 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTION FOR SAFE HANDLING

Work in well ventilated areas and in the presence of ventilation systems or personal protective equipment. Do not inhale vapors or mists. Avoid the contact with eyes, skin and clothes. Limit repeated exposure.

7.2 CONDITION FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep the containers at 2-8°C in a cool, well-ventilated area, away from heat sources and humidity.

7.3 SPECIFIC END USE

None

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Applicable exposure limits:

| Description | Type | TWA/8h | | STEL/15min | |
|---------------------------------|---------------|-------------------|-----|-------------------|-----|
| | | mg/m ³ | ppm | mg/m ³ | ppm |
| Ethylene glycol* *Note: Skin | D.Lgs 81/2008 | 52 | 20 | 104 | 40 |

| | |
|--------------------|--|
| Other information: | Derived no effect level (IUCLID) |
| | PNEC |
| | Fresh water: 10 mg/L |
| | Marine water: 1 mg/L |
| | Intermittent release: 10 mg/L |
| | STP 199.5 mg/L |
| | Sediments (Fresh water): 20.9 mg/kg sediment dw |
| | Soil: 1.53 mg/kg soil dw |
| | DNEL (Workers) |
| | Long-term exposure - systemic effects - dermal: 106 mg/kg bw/day |
| | Long-term exposure - systemic effects - inhalation: 35 mg/m ³ |
| | DNEL (Population) |
| | Long-term exposure - systemic effects - dermal: 53 mg/kg bw/day |
| | Long-term exposure - systemic effects - inhalation: 7 mg/m ³ |

8.2 EXPOSURE CONTROLS

Work and handle according to the usual precautionary measures for handling chemicals.
Do not eat, drink or smoke while handling the product; wash hands thoroughly with soap and water before meals and after the work shift. Immediately remove all contaminated clothing.

Appropriate engineering controls:

Ensure an adequate ventilation of the working area.

Personal Protective Equipment:

The suggestions on the use of specific PPE are indicative. Their choice should be made according to the use of the product and the instructions given by the supplier of the

Hand protections:

Chemical-resistant gloves, compliant with EN 374

Eye protections:

Side Shields Safety Goggles compliant with EN 166

Body protections:

Work outfits

Respiratory protections:

Not required under normal work activities

8.3 ENVIRONMENTAL EXPOSURE CONTROLS:

Do not discard residuals in the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------|----------------|
| Appearance | Liquid |
| Odor: | Characteristic |
| Odor threshold: | Not pertinent |

| | |
|---|-------------------------------------|
| pH: | No data available |
| Melting point/freezing point | 197.6°C (Ethylene glycol) |
| Initial boiling point and boiling range | No data available |
| Flash point | 111°C (Ethylene glycol) |
| Evaporation rate | Not pertinent |
| Flammability | Not pertinent |
| Upper/lower flammability or explosive limit | 3.2-15.3 % v/v (Ethylene glycol) |
| Vapor pressure | 0.053 hPa at 20°C (Ethylene glycol) |
| Vapor density | 2.14 (Ethylene glycol) |
| Relative density | No data available |
| Water solubility | Soluble in water |
| Partition coefficient: n-octano/water | Log Po/w: - 1.36 (Ethylene glycol) |
| Autoignition temperature | Not pertinent |
| Decomposition temperature | 200-250°C (Ethylene glycol) |
| Viscosity | 21 mPas (Ethylene glycol) |
| Explosive properties | Not explosive |
| Oxidizing properties | No data available |

9.2 OTHER SAFETY INFORMATION

None

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

In case of a strong heating, the product could form vapors, which are flammable if mixed with air.

10.2 CHEMICAL STABILITY

Stable until the expire date under the recommended transport, handling and storage conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Information about the contained substances:

Ethylene glycol

Risk of explosion in case of contact with aluminum and perchloric acid.

Risk of fire or formation of flammable gases in case of contact with chromium chloride, strong oxidizing agents, chlorate, potassium permanganate and peroxides.

Exothermic reactions with chlorosulfonic acid, sodium hydroxide and sulfuric acid are possible.

10.4 CONDITIONS TO AVOID

Avoid the storage at temperature different from that are advised

10.5 INCOMPATIBLE MATERIALS

Strong oxidizing and reducing agents

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

When heated or in case of fire, vapors potentially dangerous to health may be produced.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

The product is harmful if swallowed.

The product can cause an allergic reaction in case of contact with skin.

Toxicological properties of the substances

| | |
|--|---|
| Ethylene glycol | |
| Acute toxicity | No data available |
| Skin irritation/corrosion | Results of tests performed using rabbits: Not corrosive; slight irritation of skin with reversible effects within 72h |
| Eye lesions/severe eye irritation | Results of tests performed using rabbits: slightly irritating with completely reversible effects |
| Respiratory/skin sensitization | Patch test results: Negative |
| Mutagenicity for germ cells | Results of In vitro genotoxicity tests (Ames test with metabolic activation): Negative |
| Carcinogenicity | No data available |
| Reproductive toxicity | No data available |
| Toxicity for target organs (single and repeated exposures) | No data available |
| Hazards in case of inhalation | No data available |
| Additional information | No data available |

12. ECOLOGICAL INFORMATION

12.1 TOXICITY

Use according to the good working practices, avoiding the disposal in the environment.

In case the product reach waterways or sewers or contaminate soil or vegetation, inform the competent authorities.

Toxic properties of the substances

| | |
|--------------------------------------|------------------|
| Ethylene glycol | |
| Fishes (Oncorhynchus mykiss, 96h): | CL50> 18500 mg/l |
| Invertebrates (Daphnia magna, 24h): | EC50 74000 mg/l |
| Algae (Scenedesmus quadricauda, 7d): | IC5>10000 mg/l |

12.2 PERSISTENCE AND DEGRADABILITY

Ethylene glycol: readily biodegradable (OECD TG 301C)

12.3 BIOACCUMULATIVE POTENTIAL

No data available

12.4 MOBILITY IN SOIL

No data available

12.5 RESULTS OF PBT AND VPVB ASSESSMENT

No data available

12.6 OTHER ADVERSE EFFECTS

No data available

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

The samples and all the used reagents have to be handled as potentially infected.
The product and its containers should be considered special waste.
Their transport and disposal should be performed by authorized specialized companies according to the law.

14. TRANSPORT INFORMATION

Not hazardous good according to the transport regulations.

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Hazard classification, labeling and packaging under Regulation 1272/2008 (EC) and its subsequent amendments.

Legislative Decree 81/2008:

The use of this chemical entails the obligation of "Risk Assessment" by the employer in accordance with the provisions of the Decree April 9, 2008 n. 81 and subsequent amendments. Workers exposed to this chemical agent must not undergo health checks whether the results of the risk assessment show that, depending on the type and quantity of chemical agent and the method and frequency of exposure to this agent, there is only one "Low risk to the safety and irrelevant to the health" of the workers and the measures provided for in the same Decree are

Directive 96/82/EC (Seveso Directive):

Not applicable

15.2 CHEMICAL SAFETY ASSESSMENT

Not performed for the product

16. OTHER INFORMATION

This product has to be used for diagnostic use only by personnel who is qualified and trained on the hazards shown in this safety sheet.

Text of the hazard statements present at point 3

| | |
|------|--|
| H301 | Toxic if swallowed |
| H302 | Harmful if swallowed |
| H311 | Toxic in contact with skin |
| H314 | Causes severe skin burns and eye damage |
| H317 | May cause an allergic skin reaction |
| H331 | Toxic if inhaled |
| H400 | Very toxic to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |

REFERENCES:

1. Regulation (EC) 1907/2006 of the European Parliament (REACH) as amended
2. Regulation (EC) 1272/2008 of the European Parliament (CLP) as amended

3. ECHA European Chemicals Agency www.echa.europa.eu
4. The Merck Index.
5. Handling Chemical Safety
6. NIOSH - Registry of Toxic Effects of Chemical Substances
7. INRS - Fiche Toxicologique

DIESSE Diagnostica Senese SpA declares that the information contained in this data sheet is based on the knowledge available to us on the date of the last version. Users must verify the suitability and accuracy of the provided information according to the specific use of the product. The document has not been accepted as a guarantee of any specific product property. Because of the use of this product is not subject to our direct control, the users, under their own responsibility, must observe the laws and regulations relating to health and safety. We accept no responsibility for improper use.

This sheet supersedes any previous edition.