PLATELIA™ DENGUE NS1 Ag

1 plate - Σ 96 REF 72830

QUALITATIVE OR SEMI-QUANTITATIVE DETECTION OF DENGUE VIRUS NS1 ANTIGEN IN HUMAN SERUM OR PLASMA BY ENZYME IMMUNOASSAY

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BIO-RAD

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1- CLINICAL VALUE

Dengue is an endemic disease affecting tropical and subtropical regions around the world. It is considered as the most important arboviral disease in terms of morbidity, mortality and socio-economical costs. Global prevalence of dengue has increased dramatically in recent decades and the disease is now endemic in more than 100 countries, and potentially concern 40% of earth population. The World Health Organization estimates that there are about 50 to 100 million cases of dengue infections worldwide every year, which results in 250,000 to 500,000 severe complicated forms of the disease and 24,000 deaths each year.

Dengue virus is transmitted by mosquito, mainly *Aedes aegypti* and *Aedes albopictus*. There are four distinct serotypes (DEN-1, DEN-2, DEN-3, DEN-4). Primary infection induces a life-long protective immunity to the homologous serotype, but confers only partial and transient protection against the other three serotypes in case of re-infection (secondary infection).

Infection with dengue virus causes a broad spectrum of illnesses, ranging from asymptomatic infection, undifferentiated fever and classical dengue fever (DF), to the more severe forms, dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS) with high rates of morbidity and mortality. DF is characterised by fever lasting 3-5 days, headache, muscle and joint pain, rash, but usually patient recovery. DHF or DSS, which mainly occur in patient previously infected with the virus, present similar symptoms to DF, but are followed by increased vascular permeability and hemorrhagic signs leading to reduce blood pressure, hypovolemia, vascular collapsus and death.

The most challenging problem associated with infected patient management is rapid and specific detection of dengue virus during acute phase in order to implement timely clinical treatment. Isolation and identification of the virus or detection of viral nucleic acid allow early diagnostic during febrile phase, but both methods need a specialized laboratory and results are not immediate. Detection of dengue virus-specific antibodies are commonly used for routine diagnostic. However, antibodies appear after symptoms onset. In primary infection, IgM and IgG arise approximatively 5 and 14 days respectively after symptom onset.

In secondary infection, IgM levels are low or undetectable while IgG rise 1-2 days after symptom onset with higher levels than in primary infection. More recently, detection in patients sera of circulating dengue virus nonstructural protein NS1 has been described as an alternative method for early diagnosis. NS1 antigen was found circulating from the first day and up to 9 days after the onset of fever, with comparable levels observed in primary and secondary infections.

2- PRINCIPLE

Platelia™ Dengue NS1 Ag is a one step sandwich format microplate enzyme immunoassay for the qualitative or semi-quantitative detection of Dengue virus NS1 antigen in human serum or plasma. The test uses murine monoclonal antibodies (MAb) for capture and revelation.

Samples and controls are directly and simultaneously incubated with the conjugate for 90 minutes at 37°C within the microplate wells sensitised with MAb. If NS1 antigen is present in the sample, an immune-complex MAb - NS1 - MAb/peroxidase will be formed. After a washing step, the presence of immune-complex is demonstrated by distribution in each well of a chromogenic solution initiating a color development reaction. After 30 minutes of incubation at room temperature, the enzymatic reaction is stopped by addition of an acid solution. The optical density reading obtained with a spectrophotometer set at 450/620 nm is proportional to the amount of NS1 antigen present in the sample. The presence of NS1 antigen in an individual sample is determined by comparing the optical density reading of the sample to the optical density of the calibrator.

3- PRODUCT INFORMATION

Label		Nature of reagents	Presentation
R1	**Microplate**	**Microplate** (Ready-to-use): 12 strips with 8 wells each, coated with anti-NS1 MAb, in vaccum sealed bag	1
R2	**Concentrated Washing Solution (20X)**	**Concentrated Washing Solution (20X):** TRIS-NaCl buffer (pH 7.4), Preservative : 0.04% ProClin™ 300	1 x 70 ml
R3	**Negative Control**	**Negative Control:** Human serum negative for Dengue NS1 antigen. Preservative: 0.15% ProClin™ 300	1 x 1.0 ml
R4	**Calibrator**	**Calibrator:** TRIS-NaCl buffer (pH 8.0), Dengue NS1 antigen, bovine serum albumin, glycérol, E102, E122. Preservative: 0.15% ProClin™ 300	1 x 1.5 ml
R5	**Positive Control**	**Positive Control:** TRIS-NaCl buffer (pH 8.0), Dengue NS1 antigen, bovine serum albumin, glycérol, E102, E122. Preservative: 0.15% ProClin™ 300	1 x 1.0 ml
R6	**Conjugate (50x)**	**Conjugate** (50x)**:** Anti-NS1 MAb coupled with horseradish peroxydase. Preservative: 0.15% ProClin™ 300	1 x 0.5 ml
R7	**Diluent**	**Diluent** (Ready-to-use)**:** Phosphate buffer, Tween® 20, fetal calf serum. Preservative: 0.15% ProClin™ 300	1 x 22 ml
R9	**Chromogen TMB**	**Chromogen** (Ready-to-use): 3.3'.5.5' tetramethylbenzidine (< 0.1%), H_2O_2 (<1%)	1 x 28 ml
R10	**Stopping Solution**	**Stopping Solution** (Ready-to-use)**:** 1N sulfuric acid solution	1 x 28 ml

For storage conditions and expiration date, refer to the indications mentioned on the box.

4- WARNING AND PRECAUTIONS

The reliability of the results depends on correct implementation of the following Good Laboratory Pratices:

- Do not use expired reagents.
- Do not mix reagents from different lots within a given test run.

REMARK: ***For Washing Solution (R2, label identification: 20x colored green), Chromogen (R9, label identification: TMB colored turquoise) and Stopping Solution (R10, label identification: 1N colored red), it is possible to use other lots than those contained in the kit, provided these reagents are strictly equivalent and the same lot is used within a given test run.***

REMARK: ***It is not permissible to use Diluent (R7) from lots other than provided in the kit.***

REMARK: In addition, the Washing Solution (R2, label identification: 20x colored green) can be mixed with the 2 other washing solutions included in various Bio-Rad reagent kits (R2, label identifications: 10x colored blue or 10x colored orange) when properly reconstituted, provided only one mixture is used within a given test run.

- Before use, allow reagents to reach room temperature (+18-30°C).
- Carefully reconstitute or dilute the reagents avoiding any contamination.
- Do not carry out the test in the presence of reactive vapors (acid, alkaline, aldehyde vapors) or dust that could alter the enzyme activity of the conjugate.
- Use glassware thoroughly washed and rinsed with deionized water or preferably, disposable material.
- Do not allow the microplate to dry between the end of the washings operation and the reagent distribution.
- The enzyme reaction is very sensitive to metal ions. Consequently, do not allow any metal element to come into contact with the various conjugate or substrate solutions.
- Chromogen Solution (R9) should be colorless. The appearance of a blue color indicates that the reagent cannot be used and must be replaced.
- Use a new pipette tip for each sample.
- Washing the microplate is a critical step in the procedure: follow the recommended number of washings cycles and make sure that all wells are completely filled and then completely emptied. Incorrect washings may lead to inaccurate results.
- Never use the same container to distribute conjugate and development solution.

- Check the pipettes and other equipment for accuracy and correct operations.
- Do not change the assay procedure.

HEALTH AND SAFETY INSTRUCTIONS

- Human origin material used in the preparation of the reagents has been tested and found non-reactive for hepatitis B surface antigen (HBs Ag), antibodies for hepatitis C virus (anti-HCV) and to human immunodeficiency virus (anti-HIV1 and anti-HIV2). Because no method can absolutely guarantee the absence of infectious agents, handle reagents of human origin and patient samples as potentially capable of transmitting infectious diseases.
- Any material, including washings solution, that comes directly in contact with samples and reagents containing materials of human origin, should be considered capable of transmitting infectious diseases.
- Wear disposable gloves when handling reagents.
- Do not pipette by mouth.
- Avoid spilling samples or solutions containing samples. Spills must be rinsed with bleach diluted to 10%. In the event of a spill with an acid, it must be first neutralized with sodium bicarbonate, then cleaned with bleach diluted at 10% and dried with absorbent paper. The material used for cleaning must be discarded in a contaminated residue container.
- Samples of human origin, as well as contaminated material and products should be discarded after decontamination, either by immersion in bleach at the final concentration of 5% of sodium hypochloride for 30 minutes, or by autoclaving at 121°C for 2 hours minimum. Autoclaving for at least one hour at 121°C is the best method to inactivate the HIV viruses and the HB viruses.

CAUTION: Do not introduce solutions containing sodium hypochloride into the autoclave

- Avoid any contact of the substrate buffer, chromogen and stopping solution with skin and mucosa (risk of toxicity, irritation or burn).
- Chemicals should be handled and disposed of in accordance with Good Laboratory Pratices.
- For hazard and precaution recommendations related to some chemical components in this test kit, please refer to the pictogram(s) mentioned on the labels and the information supplied at the end of instruction for use. The Safety Data Sheet is available on www.bio-rad.com.

5- SPECIMEN COLLECTION, PREPARATION AND STORAGE

1. Serum and plasma (EDTA, citrate, heparin) are the recommended sample types.
2. Observe the following recommendations for handling, processing and storing blood samples:
   - Collect all blood samples observing routine precaution for venipuncture.
   - For serum, allow samples to clot completely before centrifugation.
   - Keep tubes stoppered at all times.
   - After centrifugation, separate the serum or plasma from the clot or red cells in a tightly stoppered storage tube.
   - The specimen can be stored at +2-8°C if test is performed within 24 hours.
   - If the test will not be completed within 24 hours, or for shipment of samples, freeze at –20°C or colder.
   - Do not use samples that have been thawn more than three times. Previously frozen specimens should be thoroughly mixed after thawing prior to testing.
3. Samples containing 100 mg/L bilirubin and lipemic samples containing the equivalent of 36 g/L triolein (triglyceride) do not affect the results. Presence of albumin at 90g/L or hemolysed samples containing 10mg/mL of hemoglobin can potentially increase ratio of negative samples.
4. Do not heat the samples.

6- ASSAY PROCEDURE

6.1. MATERIALS REQUIRED BUT NOT PROVIDED

- Vortex mixer.
- Microplate reader equipped with 450 nm and 620 nm filters (*).
- Water bath or equivalent microplate incubator thermostatically set at 37±1°C (*).
- Manual, semi-automatic or automatic microplate washer (*).
- Container for biohazard waste.
- Sodium hypochloride (bleach) and sodium bicarbonate.
- Sterile distilled or deionized water.
- Graduated cylinders of 25 mL, 50 mL, 100 mL and 1000 mL capacity.
- Disposable latex gloves.
- Goggles or safety glasses.
- Absorbent paper.
- Automatic or semi-automatic, adjustable or preset, pipettes or multi-pipettes to measure 50 µL, 100 µL, 300 µL and 1000 µL.

- Disposable tubes.

(*) Consult our technical department for detailed information about the recommended equipment.

6.2. REAGENTS RECONSTITUTION

- **R1:** Bring at room temperature (+18-30°C) before opening the bag. Return unused strips in the bag immediately and check the presence of desiccant. Carefully re-seal the bag and store it at +2-8°C.
- **R2:** Dilute 1/20 the Washing Solution R2 in distilled water: for example 50 mL of R2 and 950 mL of distilled water to get the ready-to-use Washing Solution. Prepare 350 mL of diluted Washing Solution for one plate of 12 strips if washing manually.
- **R6+R7:** Conjugate (R6) is concentrated 50x and must be homogenise before use. Dilute 1/50 with Diluent (R7). For one strip, dilute 20 µL of R6 qsp. 1.0 mL of R7. Multiply these volumes by 12 for one microplate.

6.3. STORAGE OF OPENED AND/OR RECONSTITUTED REAGENTS

The kit must be stored at +2-8°C. When the kit is stored at +2-8°C before opening, each component can be used until the expiration date indicated on the outer label of the kit.

- **R1:** Once opened, the strips remain stable for up to six weeks if stored at +2-8°C in the same carefully closed bag containing the desiccant.
- **R2:** Once diluted, the Washing Solution can be kept for 2 weeks at +2-30°C. Once opened, the concentrated Washing Solution stored at +2-30°C, in absence of contamination, is stable until the expiration date indicated on the label.
- **R6+R7:** Once diluted, the reconstituted solution is stable 8 hours at room temperature (+18-30°C).
- **R3, R4, R5, R6, R7, R10:** Once opened, reagents stored at +2-8°C, in absence of contamination, are stable until the expiration date indicated on the label.
- **R9:** Once opened and without any contamination, the reagent stored at +2-8°C is stable for up to 8 weeks.

6.4. PROCEDURE

Strictly follow the assay procedure.

Before use, allow reagents to reach room temperature (+18-30°C).

Use one negative control (R3), two calibrators (R4) and one positive control (R5) in each run to validate the assay results.

1. Carefully establish the distribution and identification plan for calibrator, controls and patient samples (S1, S2…) as indicated below:

	1	2	3	4	5	6	7	8	9	10	11	12
A	R3	S5										
B	R4	S6										
C	R4	S7										
D	R5	S8										
E	S1	S9										
F	S2	S10										
G	S3	S11										
H	S4	S12										

2. Take the carrier tray and the strips (R1) out of the protective pouch (*Refer to section 6.2*).
3. Strictly following the indicated distribution sequence, distribute successively in the wells :
   - 50µL of diluent (R7)
   - 50µL of samples (calibrator, controls or patients)
   - 100µL of diluted conjugate (R6+R7)

N.B: *Diluent, sample and conjugate distributions can be visually controlled at this step of the manipulation. When adding the neat sample to the diluent, the color turns from yellow to orange. After adding the conjugate, the color turns from orange to green. This control could be altered when using diluted samples.*

4. Cover the reaction microplate with an adhesive plate sealer, pressing firmly onto the plate to ensure a tight seal.
5. Incubate the microplate in a thermostat controlled water bath or microplate incubator for 90 ± 5 minutes at 37 ± 1°C.
6. Prepare the dilution of the washing solution (R2) (*Refer to section 6.2*).
7. At the end of the incubation period, remove the adhesive plate sealer. Aspirate the contents of all wells into a container for biohazard waste (containing sodium hypochloride). Wash microplate 6 times with washing solution (R2). Invert microplate and gently tap on absorbent paper to remove remaining liquid.

   Note: *It is important to avoid reagent splashing during aspiration and washing steps.*
8. Quickly distribute into each well and **away from light** 160 µL of Chromogen solution (R9). **Allow the reaction to develop in the dark for 30 ± 5 minutes at room temperature (+18-30°C)**. Do no use adhesive plate sealer during this incubation.

9. Stop the enzymatic reaction by adding 100 µL of Stopping Solution (R10) in each well. Use the same sequence and rate of distribution as for the development solution.
10. Carefully wipe the plate bottom. Read the optical density at 450/620 nm using a plate reader within 30 minutes after stopping the reaction (The strips must always be kept away from light before reading).
11. Check all results for agreement between the reading and the distribution and identification of plate and samples.

7- CALCULATION AND INTERPRETATION OF RESULTS

7.1. CALCULATION OF THE CUT-OFF VALUE

The cut-off value CO corresponds to the mean value of the optical densities of the calibrator duplicates (R4).

7.2. CALCULATION OF THE SAMPLE RATIO

Sample result is expressed by Ratio using the following formula, where S is the optical density (OD) obtained on the sample:

- Sample Ratio = S/CO

7.3. QUALITY CONTROL

For validation of the assay, the following criteria must be met:

- Optical density values:
  - CO > 0,200
- Ratios:
  - R3 Ratio < 0,40 (R3 Ratio = OD_{R3} / CO)
  - R5 Ratio > 1,50 (R5 Ratio = OD_{R5} / CO)

If those specifications are not met, the test run should be repeated.

7.4. INTERPRETATION OF RESULTS

Refer to the table below for results interpretation.

Sample Ratio	Result	Interpretation and recommendations
Ratio < 0.50	Negative	The sample is considered non reactive for Dengue NS1 antigen.
0.50 ≤ Ratio < 1.00	Equivocal	The sample is considered equivocal for Dengue NS1 antigen.
Ratio ≥ 1.00	Positive	The sample is considered reactive for Dengue NS1 antigen.

Remark: *ODs obtained on highly reactive samples could reach the maximum OD readable on the spectrophotometer.*

7.5. TROUBLE SHOOTING GUIDE

Non validated or non repeatable reactions are often caused by :

- Inadequate microplate washings.
- Contamination of negative samples by serum or plasma with a high concentration.
- Contamination of the development solution by oxidizing agents (bleach, metal ions…)
- Contamination of the stopping solution.

8- PERFORMANCES

8.1. SENSITIVITY – SPECIFICITY

- **Sensitivity**

Sensitivity was evaluated on 177 retrospective sera from patients with current dengue infection confirmed by RT-PCR. On this panel, the Platelia™ Dengue NS1 Ag assay was positive in 91% of cases (95% confidence interval: 85,8%-94,8%). By comparison, the sensitivity obtained with a commercialized Dengue IgM EIA assay was 17,5%.

Sensitivity was significantly higher in IgG negative samples from primary infection (sensitivity of 98,5%, n= 66) than in IgG positive samples (sensitivity of 85,6%, n=90) ($\chi 2$ test, p=0,004).

No significative difference was observed related to dengue serotypes as summarized in Table 1 below:

Table 1: Sensitivity of Platelia™ Dengue NS1 Ag related to virus serotype (n=177).

Serotype	Number of sera	Sensitivity of Platelia™ Dengue NS1 Ag (95% CI)
1	93	88.9% (85.8% - 94.8%)
2	31	87.1% (70.1% - 96.3%)
3	24	100.0% (85.6% - 100.0%)
4	29	93.3% (77.9% - 97.9%)

The sensitivity of Platelia™ Dengue NS1 Ag was studied on sera from patients for which the onset of fever was documented. Highest sensitivities are obtained as soon as the clinical signs appear and stay high during febrile episodes as shown in Table 2.

Table 2: Sensitivity of Platelia™ Dengue NS1 Ag related to clinical signs apparition (n=177).

Days after beginning of fever	Number of sera	Sensitivity of Platelia™ Dengue NS1 Ag	Sensitivity of Dengue IgM EIA
0	10	100.0%	0.0%
1	33	87.8%	5.1%
2	40	92.5%	6.1%
3	20	95.0%	15.0%
4	27	96.3%	48.1%
5	19	52.6%	94.1%
≥ 6	28	35.7%	100.0%

- **Specificity**

Specificity was evaluated on 618 specimens including samples from 563 blood donors and 55 hospitalized patients. No positive results were observed in the studied population, providing a specificity of 100.0% (95% confidence interval: 99.4% - 100.0%).

8.2. PRECISION

- **Intra-assay precision (repeatability)**

In order to evaluate intra-assay repeatability, one negative and three positive samples were tested 30 times during the same assay. The ratio (S/CO) was determined for each sample. Mean Ratio, Standard Deviation (SD), and Coefficient of Variation (%CV) for each of the four specimens are listed in Table 3 below.

Table 3: Intra-assay precision.

N=30	Negative Sample	Weak Positive Sample	Medium Positive Sample	High Positive Sample
	Sample Ratio (S/CO)			
Mean	0.10	1.32	3.79	6.24
SD	0.01	0.08	0.29	0.45
% CV	**13.1**	**6.2**	**7.7**	**7.2**

- **Inter-assay precision (reproducibility)**

In order to evaluate inter-assay reproducibility, each of four specimens (one negative and three positive samples) was tested in duplicate, two runs a day, over a twenty day period. The ratio (S/CO) was determined for each sample. Mean Ratio, Standard Deviation (SD), and Coefficient of Variation (%CV) for each of the four specimens are listed in Table 4 below.

Table 4: Inter-assay precision.

N=40	Negative Sample	Weak Positive Sample	Medium Positive Sample	High Positive Sample
	Sample Ratio (S/CO)			
Mean	0.10	1.17	3.85	6.20
SD	0.03	0.21	0.67	0.96
% CV	**33.8**	**17.8**	**17.4**	**15.5**

8.3. CROSS REACTIVITY

A panel of 38 sera with potential interfering substances like antinuclear antibodies (n=10), rheumatoid factor (n=9), heterophilic antibodies (n=9) as well as patients with myeloma (n=10) were tested with the Platelia™ Dengue NS1 Ag. Another panel of 162 sera from patients with confirmed diseases other than dengue (West Nile, Yellow fever, CMV, HSV, VZV, etc…) was tested. All 200 samples were found to be negative with the Platelia™ Dengue NS1 Ag assay.

9- LIMITATIONS OF THE PROCEDURE

Diagnosis of recent infection by Dengue virus can only be established on the basis of a combination of clinical and biological datas. The result obtained on a single sample does not constitute a sufficient proof for diagnostic of recent infection.

10- QUALITY CONTROL OF THE MANUFACTURER

All manufactured reagents are prepared according to our Quality System, starting from reception of raw material to the final commercialization of the product. Each lot is submitted to quality control assessments and is only released to the market, after conforming to pre-defined acceptance criteria. The records relating to production and control of each single lot are kept within Bio-Rad.

11- REFERENCES

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(BG) • Този продукт съдържа човешки или животински компоненти. Бъдете внимателни при работа с него.

(CZ) • Tento výrobek obsahuje lidské nebo zvířecí komponenty. Zacházejte s ním opatrně.

(DE) • Dieses Produkt enthält Bestandteile menschlichen oder tierischen Ursprungs. Vorsichtig handhaben.

(DK) • Dette produkt indeholder humane og animalske komponenter. Skal behandles med forsigtighed.

(EE) • Käesolev toode sisaldab inim-või loomseid komponente. Käsitseda ettevaatlikult.

(EN) • This product contains human or animal components. Handle with care.

(ES) • Este producto contiene componentes humanos o animales. Manejar con cuidado.

(FI) • Tässä tuotteessa on ihmisestä tai eläimistä peräisin olevia osia. Käsittele varovasti.

(FR) • Ce produit contient des composants d'origine humaine ou animale. Manipuler avec précaution.

(GR) • Αυτό το προϊόν περιέχει ανθρώπινα ή ζωικά στοιχεία. Χειριστείτε το με προσοχή.

(HR) • Ovaj proizvod sadrži ljudske ili životinjske sastojke. Pažljivo rukovati.

(HU) • A készítmény emberi vagy állati eredetű összetevőket tartalmaz. Óvatosan kezelendő.

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(LT) • Šiame produkte yra žmogiškosios arba gyvūninės kilmės sudėtinių dalių. Elgtis atsargiai.

(MT) • Dan il-prodott fih komponenti umani jew tal-annimali. Uża b'attenzjoni.

(NL) • Dit product bevat menselijke of dierlijke bestanddelen. Breekbaar.

(NO) • Dette produktet inneholder humane eller animalske komponenter. Håndteres med forsiktighet.

(PL) • Niniejszy produkt zawiera składniki pochodzenia ludzkiego lub zwierzęcego. Należy obchodzić się z nim ostrożnie.

(PT) • Este medicamento contém componentes de origem humana ou animal. Manuseie com cuidado.

(RO) • Acest produs conține materiale de origine umană sau animală. Manevrați-l cu grijă.

(SE) • Denna produkt innehåller beståndsdelar från människa eller djur. Hantera produkten varsamt.

(SI) • Izdelek vsebuje človeške ali živalske sestavine. Rokujte previdno.

(SK) • Tento výrobok obsahuje ľudské alebo zvieracie zložky. Narábajte s ním opatrne.

H314-H317
P280-P305+P351+P338-
P301+P330+P331-P303+P361+P353-
P333+P313-P501

(BG)

опасно
Причинява тежки изгаряния на кожата и сериозно увреждане на очите. Може да причини алергична кожна реакция.
Използвайте предпазни ръкавици/предпазно облекло/предпазни очила/предпазна маска за лице. ПРИ КОНТАКТ С ОЧИТЕ: Промивайте внимателно с вода в продължение на няколко минути. Свалете контактните лещи, ако има такива и доколкото това е възможно. Продължавайте да промивате. ПРИ ПОГЛЪЩАНЕ: изплакнете устата. НЕ предизвиквайте повръщане. ПРИ КОНТАКТ С КОЖАТА (или косата): Незабавно свалете цялото замърсено облекло. Облейте кожата с вода/вземете душ При поява на кожно дразнене или обрив на кожата: Потърсете медицински съвет/помощ. Изхвърлете съдържанието/контейнера в съответствие с местните/регионалните/националните/международните разпоредби.

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Nebezpečí
Způsobuje těžké poleptání kůže a poškození očí.
Může vyvolat alergickou kožní reakci.
Používejte ochranné rukavice/ochranný oděv/ochranné brýle/obličejový štít. PŘI ZASAŽENÍ OČÍ: Několik minut opatrně vyplachujte vodou. Vyjměte kontaktní čočky, jsou-li nasazeny a pokud je lze vyjmout snadno. Pokračujte ve vyplachování. PŘI POŽITÍ: Vypláchněte ústa. NEVYVOLÁVEJTE zvracení. PŘI STYKU S KŮŽÍ (nebo s vlasy): Veškeré kontaminované části oděvu okamžitě svlékněte. Opláchněte kůži vodou/osprchujte. Při podráždění kůže nebo vyrážce: Vyhledejte lékařskou pomoc/ošetření. Obsah/nádobu likvidujte v souladu s místními/regionálními/národními/mezinárodními předpisy.

(DE)

Gefahr
Verursacht schwere Verätzungen der Haut und schwere Augenschäden. Kann allergische Hautreaktionen verursachen.
Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen. BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen. BEI VERSCHLUCKEN: Mund ausspülen. KEIN Erbrechen herbeiführen. BEI KONTAKT MIT DER HAUT (oder dem Haar): Alle beschmutzten, getränkten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/duschen. Bei Hautreizung oder -ausschlag: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen. Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen/ internationalen Vorschriften.

(DK)

Fare
Forårsager svære forbrændinger af huden og øjenskader. Kan forårsage allergisk hudreaktion.
Bær beskyttelseshandsker/beskyttelsestøj/øjenbeskyttelse/ansigtsbeskyttelse VED KONTAKT MED ØJNENE: Skyl forsigtigt med vand i flere minutter. Fjern eventuelle kontaktlinser, hvis dette kan gøres let. Fortsæt skylning. I TILFÆLDE AF INDTAGELSE: Skyl munden. Fremkald IKKE opkastning. VED KONTAKT MED HUDEN (eller håret): Tilsmudset tøj tages straks af/fjernes. Skyl/brus huden med vand. Ved hudirritation eller udslet: Søg lægehjælp. Bortskaffelse af indholdet/beholderen i henhold til de lokale/regionale/nationale/internationale forskrifter.

(EE)

Ettevaatust
Põhjustab rasket nahasöövitust ja silmakahjustusi. Võib põhjustada allergilist nahareaktsiooni.
Kanda kaitsekindaid/kaitserõivastust/kaitseprille/kaitsemaski. SILMA SATTUMISE KORRAL: loputada mitme minuti jooksul ettevaatlikult veega. Eemaldada kontaktläätsed, kui neid kasutatakse ja kui neid on kerge eemaldada. Loputada veel kord. ALLANEELAMISE KORRAL: loputada suud. MITTE kutsuda esile oksendamist. NAHALE (või juustele) SATTUMISE KORRAL: võtta viivitamata kõik saastunud rõivad seljast. Loputada nahka veega/loputada duši all. Nahaärrituse või _obe korral: pööruda arsti poole. Sisu/konteineri käitlus vastavuses kohalike/regionaalsete/rahvuslike/rahvusvaheliste nõuetega.

(EN)

Danger
Causes severe skin burns and eye damage. May cause an allergic skin reaction.
Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Dispose of contents/container in accordance with local/regional/national/international regulations.

(ES)

Peligro
Provoca quemaduras graves en la piel y lesiones oculares graves. Puede provocar una reacción alérgica en la piel.

Llevar guantes que aíslen del frío/gafas/máscara. EN CASO DE CONTACTO CON LOS OJOS: Aclarar cuidadosamente con agua durante varios minutos. Quitar las lentes de contacto, si lleva y resulta fácil. Seguir aclarando. EN CASO DE INGESTIÓN: Enjuagarse la boca. NO provocar el vómito. EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitarse inmediatamente las prendas contaminadas. Aclararse la piel con agua o ducharse. En caso de irritación o erupción cutánea: Consultar a un médico. Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

(FI)

Vaara

Voimakkaasti ihoa syövyttävää ja silmiä vaurioittavaa. Voi aiheuttaa allergisen ihoreaktion. Käytä suojakäsineitä/suojavaatetusta/ silmiensuojainta/kasvonsuojainta. JOS KEMIKAALIA JOUTUU SILMIIN: Huuhdo huolellisesti vedellä usean minuutin ajan. Poista piilolinssit, _edical voi tehdä helposti. Jatka huuhtomista. JOS KEMIKAALIA ON NIELTY: Huuhdo suu. Ei saa oksennuttaa. JOS KEMIKAALIA JOUTUU IHOLLE (tai hiuksiin): Riisu saastunut vaatetus välittömästi. Huuhdo/suihkuta iho vedellä. Jos ilmenee ihoärsytystä tai ihottumaa: Hakeudu lääkäriin. Säilytä säiliö(t) noudattaen paikallisia/alueellisia/kansallisia/ kansainvälisiä määräyksiä.

(FR)

Danger

Provoque des brûlures de la peau et des lésions oculaires graves. Peut provoquer une allergie cutanée.

Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage. EN CAS DE CONTACT AVEC LES YEUX: rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer. EN CAS D'INGESTION: rincer la bouche. NE PAS faire vomir. EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): enlever immédiatement les vêtements contaminés. Rincer la peau à l'eau/se doucher. En cas d'irritation ou d'éruption cutanée: consulter un médecin. Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

(GR)

Κίνδυνος

Προκαλεί σοβαρά δερματικά εγκαύματα και οφθαλμικές βλάβες. Μπορεί να προκαλέσει αλλεργική δερματική αντίδραση.

Να φοράτε προστατευτικά γάντια/προστατευτικά ενδύματα/μέσα ατομικής προστασίας για ταμάτια/ πρόσωπο. ΣΕ ΠΕΡΙΠΤΩΣΗ ΕΠΑΦΗΣ ΜΕ ΤΑ ΜΑΤΙΑ: Ξεπλύνετε προσεκτικά με νερό για αρκετά λεπτά. Εάν υπάρχουν φακοί επαφής, αφαιρέστε τους, εφόσον είναι εύκολο. Συνεχίστε να ξεπλένετε. ΣΕ ΠΕΡΙΠΤΩΣΗ ΚΑΤΑΠΟΣΗΣ: Ξεπλύνετε το στόμα. ΜΗΝ προκαλέσετε εμετό. ΣΕ ΠΕΡΙΠΤΩΣΗ ΕΠΑΦΗΣ ΜΕ ΤΟ ΔΕΡΜΑ (ή με τα μαλλιά): Αφαιρέστε αμέσως όλα τα μολυσμένα ενδύματα. Ξεπλύνετε το δέρμα με νερό/στο ντους. Εάν παρατηρηθεί ερεθισμός του δέρματος ή εμφανιστεί εξάνθημα: Συμβουλευθείτε/ Επισκεφθείτεγιατρό. Απορρίψτε τα περιεχόμενα/ δοχείο σύμφωνα με τους τοπικούς/εθνικούς/διεθνείς κανονισμούς.

(HR)

Opasnost

Uzrokuje teške opekline kože i ozljede oka. Može izazvati alergijsku reakciju na koži.

Nositi zaštitne rukavice/zaštitnu odijelo/zaštitu za oči/zaštitu za lice. U SLUČAJU DODIRA S OČIMA: oprezno ispirati vodom nekoliko minuta. Ukloniti kontaktne leće ukoliko ih nosite i ako se one lako uklanjaju. Nastaviti ispiranje. AKO SE PROGUTA: isprati usta. NE izazivati povraćanje. U SLUČAJU DODIRA S KOŽOM (ili kosom): odmah ukloniti/ skinuti svu zaganenu odjeću. Isprati kožu vodom/ tuširanjem. U slučaju nadražaja ili osipa na koži: zatražiti savjet/pomoć liječnika. Odložite sadržaje /spremnike u skladu s lokalnim/regionalnim/ nacionalni/međunarodnim odredbama.

(HU)

Veszély

Smarkiai nudegina odą ir pažeidžia akis. Allergiás bőrreakciót válthat ki.

Védőkesztyű/védőruha/szemvédő/arcvédő használata kötelező. SZEMBE KERÜLÉS esetén: Több percig tartó óvatos öblítés vízzel. Adott esetben a kontaktlencsék eltávolítása, ha könnyen megoldható. Az öblítés folytatása. LENYELÉS ESETÉN: a szájat ki kell öblíteni. TILOS hánytatni. HA BŐRRE (vagy hajra) KERÜL: Az összes szennyezett ruhadarabot azonnal el kell távolítani/ le kell vetni. A bőrt le kell öblíteni vízzel/zuhanyozás. Bőrirritáció vagy kiütések megjelenése esetén: orvosi ellátást kell kérni. Az edény tartalmát / a tartályt a helyi/regionális/nemzeti/nemzetközi szabályozásoknak megfelelően kell hulladékként elhelyezni.

(IT)

Pericolo

Provoca gravi ustioni cutanee e gravi lesioni oculari. Può provocare una reazione allergica cutanea. Indossare guanti/indumenti protettivi/Proteggere gli occhi/il viso. IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare. IN CASO DI INGESTIONE: sciacquare la bocca. NON provocare il vomito. IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliersi di dosso immediatamente tutti gli indumenti contaminati. Sciacquare la pelle/ fare una doccia. In caso di irritazione o eruzione della pelle: consultare un medico. Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

(LT)

Pavojinga

Smarkiai nudegina odą ir pažeidžia akis. Gali sukelti alerginę odos reakciją.
Mūvėti apsaugines pirštines/dėvėti apsauginius drabužius/naudoti akių (veido) apsaugos priemones.
PATEKUS Į AKIS: Kelias minutes atsargiai plauti vandeniu. Išimti kontaktinius lęšius, jeigu jie yra ir jeigu lengvai galima tai padaryti. Toliau plauti akis.
PRARIJUS: išskalauti burną. NESKATINTI vėmimo.
PATEKUS ANT ODOS (arba plaukų): Nedelsiant nuvilkti/pašalinti visus užterštus drabužius. Odą nuplauti vandeniu/čiurkšle. Jeigu sudirginama oda arba ją išberia: kreiptis į gydytoją. Turinį/talpą išpilti (išmesti) - šalinti pagal vietines / regionines / nacionalines / tarptautines taisykles.

(NL)

Gevaar

Veroorzaakt ernstige brandwonden en oogletsel. Kan een allergische huidreactie veroorzaken.
Beschermende handschoenen/beschermende kleding/oogbescherming/gelaatsbescherming dragen.
BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.
NA INSLIKKEN: de mond spoelen — GEEN braken opwekken.
BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken — huid met water afspoelen/afdouchen.
Bij huidirritatie of uitslag: een arts raadplegen.
De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

(NO)

Fare

Forårsaker alvorlige hudforbrenninger og øyeskader.
Kan forårsake allergiske hudreaksjoner.
Bruk vernehansker/verneklær/vernebriller/ansiktsskjerm.
VED KONTAKT MED ØYNENE: Skyll forsiktig med vann i opptil flere minutter. Fjern evt. kontaktlinser såfremt dette er lett mulig. Fortsett skyllingen.
VED SVELGING: Skyll munnen. IKKE fremkall brekninger.
VED HUDKONTAKT (eller kontakt med hår): Alle tilsølte klær må fjernes straks. Vask/dusj huden med vann.
Ved hudirritasjon eller -utslett: Kontakt / tilkall lege.
Innholdet / emballasjen skal avhendes i henhold til de lokale / regionale / nasjonale / internasjonale forskrifter.

(PL)

Niebezpieczeństwo

Powoduje poważne oparzenia skóry oraz uszkodzenia oczu . Może powodować reakcję alergiczną skóry.
Stosować rękawice ochronne/odzież ochronną/ochronę oczu/ochronę twarzy.
W PRZYPADKU DOSTANIA SIĘ DO OCZU: Ostrożnie płukać wodą przez kilka minut. Wyjąć soczewki kontaktowe, jeżeli są i można je łatwo usunąć. Nadal płukać.
W PRZYPADKU POŁKNIĘCIA: wypłukać usta. NIE wywoływać wymiotów.
W PRZYPADKU KONTAKTU ZE SKÓRĄ (lub z włosami): Natychmiast usunąć/zdjąć całą zanieczyszczoną odzież. Spłukać skórę pod strumieniem wody/prysznicem.
W przypadku wystąpienia podrażnienia skóry lub wysypki: Zasięgnąć porady/zgłosić się pod opiekę lekarza.
Zawartość / pojemnik usuwać zgodnie z przepisami miejscowymi / regionalnymi / narodowymi / międzynarodowymi.

(PT)

Perigo

Provoca queimaduras na pele e lesões oculares graves. Pode provocar uma reacção alérgica cutânea.
Usar luvas de protecção/vestuário de protecção/protecção ocular/protecção facial.
SE ENTRAR EM CONTACTO COM OS OLHOS: enxaguar cuidadosamente com água durante vários minutos. Se usar lentes de contacto, retire-as, se tal lhe for possível. Continuar a enxaguar.
EM CASO DE INGESTÃO: enxaguar a boca. NÃO provocar o vómito.
SE ENTRAR EM CONTACTO COM A PELE (ou o cabelo): despir/retirar imediatamente toda a roupa contaminada. Enxaguar a pele com água/tomar um duche.
Em caso de irritação ou erupção cutânea: consulte um médico.
Eliminar o conteúdo/recipiente de acordo com a legislação local/regional/nacional/internacional.

(RO)

Pericol

Provoacă arsuri grave ale pielii şi lezarea ochilor.
Poate provoca o reacţie alergică a pielii.
Purtaţi mănuşi de protecţie/îmbrăcăminte de protecţie/echipament de protecţie a ochilor/chipament de protecţie a feţei.
ÎN CAZ DE CONTACT CU OCHII: clătiţi cu atenţie cu apă timp de mai multe minute. Scoateţi lentilele de contact, dacă este cazul şi dacă acest lucru se poate face cu uşurinţă. Continuaţi să clătiţi.
ÎN CAZ DE ÎNGHIŢIRE: clătiţi gura. NU provocaţi voma.
ÎN CAZ DE CONTACT CU PIELEA (sau părul): scoateţi imediat toată îmbrăcămintea contaminată. Clătiţi pielea cu apă/faceţi duş.
În caz de iritare a pielii sau de erupţie cutanată: consultaţi medicul.
Aruncaţi conţinutul/containerul în acord cu regulamentele locale/regionale/naţionale/internaţionale.

(SE)

Fara

Orsakar allvarliga frätskador på hud och ögon. Kan orsaka allergisk hudreaktion.
Använd skyddshandskar/skyddskläder/ögonskydd/ansiktsskydd.
VID KONTAKT MED ÖGONEN: Skölj försiktigt med vatten i flera minuter. Ta ur eventuella kontaktlinser om det går lätt. Fortsätt att skölja.
VID FÖRTÄRING: Skölj munnen. Framkalla INTE kräkning.
VID HUDKONTAKT (även häret): Ta omedelbart av alla nedstänkta kläder. Skölj huden med vatten/duscha.
Vid hudirritation eller utslag: Sök läkarhjälp.
Innehållet / behållaren avfallshanteras enligt lokala / regionala / nationella / internationella föreskrifter.

(SI)

Nevarno

Povzroča hude opekline kože in poškodbe oči. Lahko povzroči alergijski odziv kože. Nositi zaščitne rokavice/zaščitno obleko/zaščito za oči/zaščito za obraz. PRI STIKU Z OČMI: previdno izpirajte z vodo nekaj minut. Odstranite kontaktne leče, če jih imate in če to lahko storite brez težav. Nadaljujte z izpiranjem. PRI ZAUŽITJU: izprati usta. NE izzvati bruhanja. PRI STIKU S KOŽO (ali lasmi): takoj odstraniti/sleči vsa kontaminirana oblačila. Izprati kožo z vodo/prho. Če nastopi draženje kože ali se pojavi izpuščaj: poiščite zdravniško pomoč/oskrbo. Vsebino/vsebnik odstranite v skladu z lokalnimi/regionalnimi/narodnimi/mednarodnimi predpisi.

(SK)

Nebezpečenstvo

Provoacă arsuri grave ale pielii şi lezarea ochilor. Môže vyvolať alergickú kožnú reakciu. Noste ochranné rukavice/ochranný odev/ochranné okuliare/ochranu tváre. PO ZASIAHNUTÍ OČÍ: Niekoľko minút ich opatrne vyplachujte vodou. Ak používate kontaktné šošovky a ak je to možné, odstráňte ich. Pokračujte vo vyplachovaní. PO POŽITÍ: vypláchnite ústa. Nevyvolávajte zvracanie. PRI KONTAKTE S POKOŽKOU (alebo vlasmi): Odstráňte/vyzlečte všetky kontaminované časti odevu. Pokožku ihneď opláchnite vodou/sprchou. Ak sa prejaví podráždenie pokožky alebo sa vytvoria vyrážky: vyhľadajte lekársku pomoc/starostlivosť. Zneškodnenie obsahu/obalu v súlade s miestnymi/oblastnými/národnými/medzinárodnými nariadeniami.

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