

BD GVPC Medium

Prepared Plated Media

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English

INTENDED USE

BD GVPC Medium (Glycine-Vancomycin-Polymyxin-Cycloheximide Medium) is a selective medium for the isolation of *Legionella* species from water and other environmental sources.

BD does not assume responsibility if the product is used for applications, microorganisms, or procedures not recommended in the Instructions for Use.

PRINCIPLES OF THE PROCEDURE

Legionella pneumophila has been determined to be the agent of Legionnaires' disease.¹ Although *Legionella* is not extremely fastidious, it needs cysteine and ferric ions for growth.² As the organism is quite sensitive to oxygen radicals, media containing charcoal are superior to Chocolate Agar for the growth of *Legionella*. The medium described by Edelstein, BCYE α (Buffered Charcoal Yeast Extract α -Ketoglutarate) Agar, is the base medium used most frequently today for *Legionella* media.³ In order to inhibit the accompanying flora, several supplements have been described.^{4,5}

BD GVPC Medium, as described by Dennis *et al.*, contains glycine, vancomycin, polymyxin B, and cycloheximide.⁶ This supplement has been found to be superior to all other inhibitory supplements described for *Legionella*, especially in water testing. Due to the addition of cycloheximide, it is also inhibitory to fungi which occur frequently in water. GVPC Medium is recommended by BSI and ISO 11731 for the detection and counting of *Legionella* in water.^{7,8}

REAGENTS

Approximate Formulas* Per Liter Purified Water

BD GVPC Medium Ingredients	
Yeast Extract	10.0 g
Ferric Pyrophosphate	0.25 g
ACES Buffer	10.0 g
Potassium Hydroxide	2.8 g
Charcoal, activated	2.0 g
Alpha-Ketoglutarate	1.0 g
Agar	15.0 g
L-Cysteine HCl	0.4 g
Glycine	3.0 g
Vancomycin	1.0 mg
Polymyxin B	80000 IU
Cycloheximide	0.08 g

pH 6.9 $\pm$ 0.2

*Adjusted and/or supplemented as required to meet performance criteria.

WARNINGS AND PRECAUTIONS

For laboratory use only.

Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration.

Biological and Chemical Safety of the Product

This section may also contain information on specific biological and/or chemical hazards, indicated by the appropriate symbols, together with the appropriate R (risk)- and S (safety)-phrases.⁹

Biohazard Originating from Specimens and Microorganisms Cultivated on Microbiological Media

Observe established precautions against microbiological hazards. Specimens and cultures of microorganisms must be handled according to local biohazard guidelines and legislation. According to the European Directive 2000/54/EC, most bacterial and fungal pathogens are included in risk group 2. Risk group 3 has been created to include *Salmonella* Typhi, enterohemorrhagic *Escherichia coli* (EHEC; also referred to as STEC = Shiga toxin-producing *E. coli*), *Shigella dysenteriae* (type 1) and several other bacteria and fungi. Other bacterial and fungal pathogens included in risk group 3 are: all *Brucella* spp.; *Mycobacterium tuberculosis*; *M. bovis*; *M. africanum*; *M. ulcerans*; and *Histoplasma capsulatum*. For details, consult Annex III of Directive 2000/54/EC.¹⁰

Product Disposal

After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be autoclaved for 20 to 30 min at 121 °C or higher (if large volumes of disposed materials must be sterilized), or incinerated by validated procedures.

STORAGE

On receipt, store plates in the dark at 2–8 °C, in their original sleeve wrapping until just prior to use. Avoid freezing and overheating. The plates may be inoculated up to the expiration date and incubated for the recommended incubation times.

USER QUALITY CONTROL

Inoculate the plates with the strains listed below. Apply 10^2 to 10^3 cfu per plate for the *Legionella* strains and 10^4 to 10^5 cfu per plate for the remaining strains. Include plates from a previously released lot of the same medium as a reference for *Legionella*, and Columbia Agar with 5% Sheep Blood plates for the remaining strains. Incubate for 2 to 3 days aerobically at 35–37 °C in a moist chamber.

Species	Strains	Growth results
<i>Legionella pneumophila</i>	ATCC® 33152	Growth good to excellent; grayish colonies with bluish hue
<i>Legionella bozemanii</i>	ATCC 33217	Growth good to excellent; grayish colonies with bluish hue
<i>Legionella micdadei</i>	ATCC 33218	Growth good to excellent; grayish colonies with bluish hue
<i>Escherichia coli</i>	ATCC 25922	Inhibition partial
<i>Staphylococcus aureus</i>	ATCC 25923	Inhibition partial
Uninoculated		Shiny black to dark gray, may be slightly inhomogeneous

Always use fresh test strain suspensions, prepared from overnight cultures in appropriate liquid media (e.g., Tryptic or BD Trypticase™ Soy Broth for aerobes, and Schaedler Broth with hemin and vitamin K for anaerobes). Alternatively, fresh suspensions prepared from overnight cultures on plated media can be used. Incubation times of precultures must be extended if the test strain grows slowly. For **testing the nutritive capacity of a plated medium** according to the CLSI standard M22, dilute the inoculum suspension to provide 1 to 2×10^4 cfu per plate.¹¹ A tenfold lighter inoculum should be used if this does not provide isolated colonies. According to DIN EN 12322, the growth-promoting properties are tested with 100 to 1,000 cfu or a sufficient amount of cfu to provide isolated colonies by an appropriate streaking plate technique.¹² If the strains are inoculated by a quantitative plating technique, 50 to 500 cfu per plate are usually appropriate to obtain a countable number of colonies. For **testing the inhibitory capacity of a selective plated medium**, according to CLSI M22, 1 to 2×10^5 cfu per plate must be used for inoculation, and about 10^4 or more cfu according to DIN EN 12322.^{11,12} Very high inocula of unwanted strains may “overload” the medium, leading to “breakthrough” growth. For comparison, always include a growth reference medium which should be a nonselective medium that provides optimal growth of all test strains. For aerobic strains, Columbia Agar with 5% Sheep Blood, for fastidious strains (like *Neisseria gonorrhoeae*) Chocolate Agar, for anaerobes Schaedler Agar with Vitamin K and 5% Sheep Blood, and for fungi Sabouraud Glucose Agar are suitable for this purpose. If tested quantitatively, growth of “desired” strains on the test medium should be at least 70% of that on the reference medium. On selective media, growth of “undesired” strains must be partially to completely inhibited. The degree of inhibition depends on the medium and the strains, but growth is usually reduced by a factor of 10^3 to 10^4 (or more) as compared to the growth on the nonselective growth reference medium. For **testing the growth performance of media in vials**, comparable methods are used. Smaller tubes and vials should be inoculated with 10^5 cfu according to the CLSI M22-A2 standard.¹¹ Vials or bottles with fill volumes above 10 mL should first be aliquoted in 5 or 10 mL amounts in sterile tubes and tested in the same way.

PROCEDURE

Materials Provided

BD GVPC Medium, provided in 90 mm BD Stacker™ plates.

Materials Not Provided

Ancillary culture media, reagents, inoculating loops, spreaders, pipettors, incubators, and laboratory equipment as required.

Test Procedure

All materials with high counts of contaminating organisms should first be treated by heat (waterbath, 30 min at 50 °C) or acid (dilute specimen in 1/10 ratio with KCl/HCl buffer pH 2.2; allow to incubate 5 min at room temperature before inoculation). Water must first be concentrated by centrifugation and filtration before it is plated. Consult the references. Incubate for 3 to 4 days, eventually up to 2 weeks, aerobically in a moist chamber at 35–37 °C.

Results

Legionella species appear as small to large, shiny, often mucoid, colorless, bluish or reddish colonies on BCYE-based media. Confirm the diagnosis using appropriate staining methods and serological tests.⁵

PERFORMANCE CHARACTERISTICS AND LIMITATIONS OF THE PROCEDURE

GVPC Medium is only partially selective. Materials with large numbers of contaminating organisms must first be decontaminated.

The GVPC supplement may be slightly inhibitory to certain *Legionella* species so that longer incubation times are needed and lower recovery rates may be obtained. Therefore, nonselective media for *Legionella* should be included when using this medium. Confirmatory tests are necessary for the identification of the genus and species.

Use of this medium with clinical specimens has not been validated.

AVAILABILITY

Cat. No.	Description	Number of plates per package
257007	BD GVPC Medium	20
257586	BD GVPC Medium	120

REFERENCES

1. McDade, J.E., C.C. Shepard, D.W. Fraser, T.R. Tsai, M.A. Redus, W.R. Dowdle, and the Laboratory Investigation Team. 1977. Legionnaires' disease: isolation of a bacterium and demonstration of its role in other respiratory disease. *N. Engl. J. Med.* 297:1197–1203.
2. Feeley, J.C., G.W. Gorman, R.E. Weaver, D.C. Mackel, and H.W. Smith. 1978. Primary isolation media for Legionnaires' disease bacterium. *J. Clin. Microbiol.* 8:320–325.
3. Edelstein, P.H. 1981. Improved semiselective medium for isolation of *Legionella pneumophila* from potable water. *J. Clin. Microbiol.* 14: 298–303.
4. MacFaddin, J. D. 1985. Media for isolation-cultivation-identification- maintenance of medical bacteria, vol. 1, p. 275–284. Williams & Wilkins, Baltimore, Maryland USA.
5. Winn, W.C. 1995. *Legionella*, p. 533–544. *In*: P.R. Murray, E.J. Baron, M.A. Pfaller, F.C. Tenover, and R.H. Tenover (ed.), *Manual of clinical microbiology*, 6th ed. American Society for Microbiology, Washington, D.C. USA.
6. Dennis, P.J.L. 1988. Isolation of legionellae from environmental specimens. *In*: *A Laboratory Manual for Legionella*. Harrison, T.G. and A.G. Taylor (eds.). John Wiley & Sons Ltd., Chichester, UK.
7. British Standard Institute (BSI). 1989. Determination of legionellae in water and related materials. Method for their detection and enumeration. Draft Document 89/53406.
8. ISO 11731. 2017. "Water quality—detection and enumeration of *Legionella*". International Organization for Standardization. Geneva, Switzerland.
9. Directive 67/548/EEC of the European Parliament and of the Council of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances. *Official Journal P* 196, 16.08.1967, p. 0001–0098.
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11. Clinical and Laboratory Standards Institute. Standard M22. Quality assurance for commercially prepared microbiological culture media. Wayne, Pennsylvania USA. Search for latest version at clsi.org.
12. DIN EN 12322. 1999. Culture media for microbiology—performance criteria for culture media. Beuth Verlag Berlin.

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Change History

Revision	Date	Change Summary
01	2020-07	Document number changed, version reset to revision 01 for BD branding updates. Updated access information to obtain the document from bd.com/e-labeling .

Some symbols listed below may not apply to this product.

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	Lower limit of temperature / Долен лимит на температурата / Dolní hranice teploty / Nedre temperaturgrænse / Temperaturuntergrenze / Κατώτερο όριο θερμοκρασίας / Limite inferior de temperatura / Alumine temperatuuriipiir / Limite inférieure de température / Najniža dozvoljena temperatura / Alsó hőmérsékleti határ / Limite inferiore di temperatura / Температураның төменгі руқсат шегі / 하한 온도 / Žemiausia laikymo temperatūra / Temperatūras zemākā robeža / Laagste temperatuurlimiet / Nedre temperaturgrense / Dolna granica temperatury / Limite mínimo de temperatura / Limită minimă de temperatură / Нижний предел температуры / Spodná hranica teploty / Donja granica temperature / Nedre temperaturgräns / Sıcaklık alt sınırı / Мінімальна температура / 温度下限 Control / Контрольно / Kontrola / Kontrol / Kontrolle / Μάρτυρας / Kontroll / Contrôle / Controllo / Бақылау / 컨트롤 / Kontrolé / Kontrole / Controle / Controllo / Контроль / kontrol / Контроль / 对照
	Positive control / Положителен контрол / Pozitivní kontrola / Positiv kontrol / Positive Kontrolle / Θετικός μάρτυρας / Control positivo / Positiivne kontroll / Contrôle positif / Pozitivna kontrola / Pozitív kontroll / Controllo positivo / Оң бақылау / 양성 컨트롤 / Teigama kontrolé / Pozitívá kontrolé / Positieve controle / Kontrola dodatnia / Controllo positivo / Control pozitiv / Положительный контроль / Pozitif kontrol / Позитивный контроль / 阳性对照试剂
	Negative control / Отрицателен контрол / Negativní kontrola / Negativ kontrol / Negative Kontrolle / Αρνητικός μάρτυρας / Control negativo / Negatiivne kontroll / Contrôle négatif / Negatívna kontrola / Negatív kontroll / Controllo negativo / Негативтік бақылау / 음성 컨트롤 / Neigama kontrolé / Negatívá kontrolé / Negatieve controle / Kontrola ujemna / Controllo negativo / Control negativ / Отрицательный контроль / Negatif kontrol / Негативный контроль / 阴性对照试剂
	Method of sterilization: ethylene oxide / Метод на стерилизация: этиленов оксид / Způsob sterilizace: ethylenoxid / Steriliseringsmetode: ethylenoxid / Sterilisationsmethode: Ethylenoxid / Μέθοδος αποστείρωσης: αιθυλενοξείδιο / Método de esterilización: óxido de etileno / Steriliseerimismetode: etüleenoksiid / Méthode de stérilisation : oxyde d'éthylène / Metoda sterilizacije: etilen oksid / Sterilizálás módszere: etilén-oxid / Metodo di sterilizzazione: ossido di etilene / Стерилизация адісі – этилен тотығы / 소독 방법: 에틸렌옥사이드 / Sterilizavimo būdas: etileno oksidas / Sterilizēšanas metode: etilēnoksīds / Gesteriliseerd met behulp van ethyleenoxide / Steriliseringsmetode: etylenoksid / Metoda sterylizacji: tlenek etylu / Método de esterilização: óxido de etileno / Metodă de sterilizare: oxid de etilenă / Metod sterilizaciji: этиленоксид / Metóda sterilizácie: etylénoxid / Metoda sterilizacije: etilen oksid / Steriliseringsmetod: etenoxid / Sterilizasyon yöntemi: etilen oksit / Metod sterilizacji: этиленоксидом / 灭菌方法: 环氧乙烷
	Method of sterilization: irradiation / Метод на стерилизация: ирадиация / Způsob sterilizace: záření / Steriliseringsmetode: bestrålning / Sterilisationsmethode: Bestrahlung / Μέθοδος αποστείρωσης: ακτινοβολία / Método de esterilización: irradiación / Steriliseerimismetode: kiirgus / Méthode de stérilisation : irradiation / Metoda sterilizacije: zračenje / Sterilizálás módszere: besugárzás / Metodo di sterilizzazione: irradiazione / Стерилизация адісі – сәуле тотығы / 소독 방법: 방사 / Sterilizavimo būdas: radiacija / Sterilizēšanas metode: apstarošana / Gesteriliseerd met behulp van bestraling / Steriliseringsmetode: bestrålning / Metoda sterylizacji: napromienianie / Método de esterilização: irradiação / Metodă de sterilizare: iradiere / Metod sterilizaciji: облучение / Metóda sterilizácie: ožarovanie / Metoda sterilizacije: ozračavanje / Steriliseringsmetod: strålning / Sterilizasyon yöntemi: ırradyasyon / Metod sterilizacji: опромінення / 灭菌方法: 辐射 Biological Risks / Биологични рискове / Biologická rizika / Biologisk fare / Biogefährdung / Βιολογικοί κίνδυνοι / Riesgos biológicos / Biologilised riskid / Risques biologiques / Biološki rizik / Biológiaiilag veszélyes / Rischio biologico / Биологический тәуекелдер / 생물학적 위험 / Biologinis pavojus / Biologiskie riski / Biologisch risico / Biologisk risiko / Zagrożenia biologiczne / Perigo biológico / Riscuri biologice / Биологическая опасность / Biologické riziko / Biološki rizici / Biologisk risk / Biolojisk Riskler / Биологічна небезпека / 生物学风险 Caution, consult accompanying documents / Внимание, направте справка в придружаващите документи / Pozor! Prostudujte si příloženou dokumentaci! / Forsigtig, se ledsagende dokumenter / Achtung, Begleitdokumente beachten / Προσοχή, συμβουλευτείτε τα συνοδευτικά έγγραφα / Precaución, consultar la documentación adjunta / Ettevaatus! Lugeka kaasnevat dokumentatsiooni / Attention, consulter les documents joints / Upozorenje, koristi prateću dokumentaciju / Figyelem! Olvassa el a mellékelt tájékoztatót / Attenzione: consultare la documentazione allegata / Абайлаңыз, тиісті құжаттармен танысыңыз / 주의, 동봉된 설명서 참조 / Dmesio, žiūrėkite priedamam dokumentus / Piesardzība, skatīt pavaddokumentus / Voorzichtig, gaadpleeg bijgevoegde documenten / Forsiktig, se vedlagt dokumentasjon / Należy zapoznać się z dołączonymi dokumentami / Cuidado, consulte a documentação fornecida / Atenție, consultați documentele însoțitoare / Внимание: см. прилагаемую документацию / Výstraha, pozří spríevodné dokumenty / Pažňaj! Pogledajte priložena dokumenta / Obs! Se medföljande dokumentation / Dikkat, bilirlike verilen belgelere başvurun / Увага: див. супутню документацію / 小心, 请参阅附带文档。
	Upper limit of temperature / Горен лимит на температурата / Horní hranice teploty / Øvre temperaturgrænse / Temperaturobergrenze / Ανώτερο όριο θερμοκρασίας / Limite superior de temperatura / Ülemine temperatuuriipiir / Limite supérieure de température / Gornja dozvoljena temperatura / Felső hőmérsékleti határ / Limite superiore di temperatura / Температураның руқсат етілген жоғарғы шегі / 상한 온도 / Aukščiausia laikymo temperatūra / Augšējā temperatūras robeža / Hoogste temperatuurlimiet / Øvre temperaturgrense / Górná granica temperatury / Limite máximo de temperatura / Limită maximă de temperatură / Верхний предел температуры / Horná hranica teploty / Gornja granica temperature / Øvre temperaturgräns / Sıcaklık üst sınırı / Максимальна температура / 温度上限
	Keep dry / Пазете сухо / Skladujte v suchém prostředí / Opbevarer tørt / Trocklegen / Φυλάξτε το στεγνό / Mantener seco / Hoida kuivas / Conserver au sec / Držati na suhom / Száraz helyen tartandó / Tenere all'asciutto / Құрғақ күйінде ұста / 건조 상태 유지 / Laikykite sausai / Uzglabāt sausu / Droog houden / Hoides tørt / Przechowywać w stanie suchym / Manter seco / A se feri de umezeală / Не допускать попадания влаги / Uchovávať v suchu / Držite na suvom mestu / Förvaras tørt / Kuru bir şekilde muhafaza edin / Беретти від вологи / 请保持干燥
	Collection time / Време на събиране / Čas odběru / Opsamlingsstidspunkt / Entnahmehzeit / Ωρα συλλογής / Hora de recogida / Kogumisaeg / Heure de prélèvement / Sati prikupljanja / Mintavétel időpontja / Ora di raccolta / Жынау уақыты / 수집 시간 / Paėmimo laikas / Savākšanas laiks / Verzameltijd / Tid prøvetaking / Godzina pobrania / Hora de colheita / Ora colectării / Время сбора / Doba odboru / Vreme prikupljanja / Uppsamlingstid / Toplama zamanı / Нас забору / 采集时间
	Peel / Оберте / Otevěte zde / Abn / Abziehen / Αποκολλήστε / Desprendre / Koord / Décoller / Otvoriti skini / Húzza le / Staccare / Ўстіңгі қабатын алып таста / 벗기기 / Plešti čia / Atīmēt / Schillen / Trekk av / Oderwać / Destacar / Se dezlipeste / Отклеить / Odrhňte / Oljušiti / Dra isår / Ayırma / Відклеїти / 撕下
	Perforation / Перфорация / Perforce / Perforering / Διότρηση / Perforación / Perforatsioon / Perforacija / Perforálás / Perforazione / Tecik тесу / 절취선 / Perforacija / Perforância / Perforatie / Perforacja / Perfuração / Perforce / Перфорация / Perforacia / Perforasyon / Перфорация / 穿孔
	Do not use if package damaged / Не използвайте, ако опаковката е повредена / Nepoužívejte, je-li obal poškozený / Må ikke anvendes hvis emballagen er beskadiget / Inhal beschädigt / Packingnicht verwenden / Μη χρησιμοποιείτε εάν η συσκευασία έχει υποστεί ζημιά. / No usar si el paquete está dañado / Mitte kasutada, kui pakend on kahjustatud / Ne pas l'utiliser si l'emballage est endommagé / Ne koristiti ako je oštećeno pakiranje / Ne használni, ha a csomagolás sérült / Non usare se la confezione è danneggiata / Ереп пакет бұзылған болса, пайдаланба / 패키지가 손상된 경우 사용 금지 / Jei pakuotė pažeista, nenaudoti / Nelietoti, ja iepakojums bojāts / Niet gebruiken indien de verpakking beschadigd is / Må ikke brukes hvis pakke er skadet / Nie używać, jeśli opakowanie jest uszkodzone / Não usar se a embalagem estiver danificada / A nu se folosi dacă pachetul este deteriorat / Не использовать при повреждении упаковки / Nepoužívejte, ak je obal poškozený / Ne koristite ako je pakovanje oštećeno / Använd ej om förpackningen är skadad / Ambalaj hasar görmüşse kullanmayın / Не використовувати за пошкодженої упаковки / 如果包装破损, 请勿使用
	Keep away from heat / Пазете от топлина / Nevystavujte přitřínému teplu / Må ikke udsættes for varme / Vor Wärme schützen / Κρατήστε το μακριά από τη θερμότητα / Mantener alejado de fuentes de calor / Hoida eemal valgest / Protéger de la chaleur / Držati dalje od izvora topline / Óvja a melegdtől / Tenere lontano dal calore / Сапқын жерде сақтау / 열을 피해야 함 / Laikykite atokiau nuo šilumos šaltinių / Sargāt no karstuma / Beschermen tegen warmte / Må ikke utsettes for varme / Przechowywać z dala od źródeł ciepła / Manter ao abrigo do calor / A se feri de căldură / Не нагревать / Uchovávať mimo zdroja tepla / Držite dalje od toplote / Får ej utsättas för värme / Isidan uzak tutun / Беретти від дії тепла / 请远离热源
	Cut / Срежете / Odstřihněte / Klip / Schneiden / Κόψτε / Cortar / Lõigata / Découper / Reži / Vágja ki / Tagliare / Keciңіз / 잘라내기 / Kirpti / Nogriez / Knippen / Kutt / Odciać / Cortar / Decupați / Отрезать / Odstřihněte / Iseći / Klippi / Kesme / Pozpizati / 剪下
	Collection date / Дата на събиране / Datum odběru / Opsamlingsdato / Entnahmedatum / Ημερομηνία συλλογής / Fecha de recogida / Kogumiskuupäev / Date de prélèvement / Dani prikupljanja / Mintavétel dátuma / Data di raccolta / Жынаған уақыты / 수집 날짜 / Paėmimo data / Savākšanas datums / Verzameldatum / Dato prøvetaking / Data pobrania / Data de colheita / Data colectării / Дата сбора / Datum odboru / Datum prikupljanja / Uppsamlingsdatum / Toplama tarihi / Дата забору / 采集日期



μL/test / μL/тест / μL/Test / μL/εξέταση / μL/prueba / μL/teszt / μL/테스트 / мкл/тест / μL/tyrimas / μL/pärbaude / μL/teste / мкн/анализ / μL/检测

Keep away from light / Пазете от светлина / Nevystavujte svétlu / Må ikke udsættes for lys / Vor Licht schützen / Κρατήστε το μακριά από το φως / Mantener alejado de la luz / Hoida eemal valgusest / Conserver à l'abri de la lumière / Držati dalje od svetla / Fény nem érheti / Tenere al riparo dalla luce / Қараңғыланған жерде ұста / 빛을 피해야 함 / Laikyti atokiau nuo šilumos šaltinių / Sargāt no gaismas / Niet blootstellen aan zonlicht / Må ikke utsettes for lys / Przechowywać z dala od źródła światła / Manter ao abrigo da luz / Feriți de lumină / Хранить в темноте / Uchovávať mimo dosahu svetla / Držite dalje od svetlosti / Får ej utsättas för ljus / Işıktan uzak tutun / Берегти від дії світла / 请远离光线



Hydrogen gas generated / Образуван е водород газ / Možnost úniku plyného vodíku / Frembringer hydrogengas / Wasserstoffgas erzeugt / Δημιουργία αερίου υδρογόνου / Producción de gas de hidrógeno / Vesinikgaasi tekitatud / Produit de l'hydrogène gazeux / Sadržaji hydrogen vodik / Hidrogén gázt fejleszt / Produzione di gas idrogeno / Газтөктес сутегі пайда болды / 수소 가스 생성됨 / Išskiria vandenilio dujas / Rodas ūdeņradis / Waterstofgas gegenereerd / Hydrogengass generert / Powoduje powstawanie wodoru / Produção de gás de hidrogénio / Generare gaz de hidrogen / Выделение водорода / Vyrobene použitím vodíka / Oslobada se vodonik / Genererad vätegas / Açığa çıkan hidrojen gazı / Реакція з виділенням водню / 会产生氢气



Patient ID number / ИД номер на пациента / ID pacienta / Patientens ID-nummer / Patienten-ID / Αριθμός αναγνώρισης ασθενούς / Número de ID del paciente / Patsienti ID / No d'identification du patient / Identifikacijski broj pacijenta / Beteg azonosító száma / Numero ID paziente / Пациенттің идентификациялық нөмірі / 환자 ID 번호 / Paciento identifikavimo numeris / Pacienta ID numurs / Identificatienummer van de patiënt / Pasientens ID-nummer / Numer ID pacienta / Número da ID do doente / Număr ID pacient / Идентификационный номер пациента / Identifikačné číslo pacienta / ID broj pacijenta / Patientnummer / Hasta kimlik numarası / Идентифікатор пацієнта / 患者标识号



Fragile, Handle with Care / Чупливо, Роботете с необходимото внимание. / Křehké. Při manipulaci postupujte opatrně. / Forsigtig, kan gå i stykker. / Zerbrechlich, vorsichtighandhaben. / Ευθραusto. Χειριστείτε το με προσοχή. / Frágil. Manipular con cuidado. / Örn, käsitsege ettevaatlikult. / Fragile. Manipuler avec précaution. / Lomljivo, rukujte pažljivo. / Törékeny! Óvatosan kezelendő. / Fragile, maneggiare con cura. / Сыныш, абайлап пайдаланыңыз. / 조심 깨지기 쉬운 처리 / Trapu, elkités atsargiai. / Trausls; rūkotiis uzmanigi / Breekbaar, voorzichtig behandelen. / Ømtålig, håndter forsigtig. / Krucha zawartość, przenosić ostrożnie. / Frágil, Manuseie com Cuidado. / Fragil, manipulați cu atenție. / Хрупкое! Обращаться с осторожностью. / Křehké, vyžaduje sa opatrná manipulácia. / Lomljivo - rukujte pažljivo. / Bräckligt. Hantera försiktigt. / Kolay Kırılır, Dikkatli Taşıyın. / Тендітнa, звертатися з обережністю / 易碎，小心轻放



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