FULL SUPPORT™
HEALTHCARE | Protecting Global Health

QUALITATIVE FIT TEST KIT

Instructions for use

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1. GETTING STARTED

1.1. Equipment

To conduct a Fit Test you will need:

- Fit Test Kit including:
  - Sensitivity Test Ampoules
  - Fit Test Ampoules
  - 1 x Hood
  - 1 x Collar
  - 2 x Nebulisers
  - 2 x Spare Atomisers
  - Nebuliser pin to clear blockages
  - 1 Fit Test Report
- Alternative Ampoules (recommended)
- Stopwatch or Clock with a second hand
- A Rainbow Passage
- Water and Cups
- A room with good ventilation

DESCRIPTION	ORDER CODE DIRECT	ORDER CODE NHS
Full Support Fit Test Kit - Bitrex™	IND-119-0003	BTP203
Full Support Fit Test Kit - Saccharin	IND-119-0022	BTP344
Replacement Sensitivity Solution Ampoules (Bitrex™)	IND-119-0014	BTP311
Replacement Sensitivity Solution Ampoules (Saccharin)	IND-119-0018	BTP316
Replacement Fit Test Solution Ampoules (Bitrex™)	IND-119-0015	BTP312
Replacement Fit Test Solution Ampoules (Saccharin)	IND-119-0019	BTP317
Replacement Hood	IND-119-0004	BTP204
Replacement Nebulisers	IND-119-0005	BTP205

1.2. General Guidance

- Read this document in full prior to conducting your first Fit Test.
- Read the manufacturer's guide to donning and doffing the respirator mask that you are about to Fit Test.
- Ensure that you have a suitable room and all of the equipment needed to conduct the Fit Test.
- If this is the first time you are using a Full Support Fit Test Kit to conduct Fit Testing, it is good practice to conduct a practice test on a colleague to familiarise yourself with the equipment as components and instructions differ between manufacturers.

NOTE: Lack of preparation, not correctly adhering to the Fit Test process and/or poor donning of the respirator mask are the most common reasons for failed Fit Tests.

2. PREPARATION

2.1. Preparing the Nebulisers

It is important to ensure that your nebulisers are clean and in good working order prior to commencing any Fit Testing. If your nebulisers are blocked, please refer to section 6.2 Cleaning & Maintenance.

Using your selected solution, prepare both nebulisers, following the steps below.

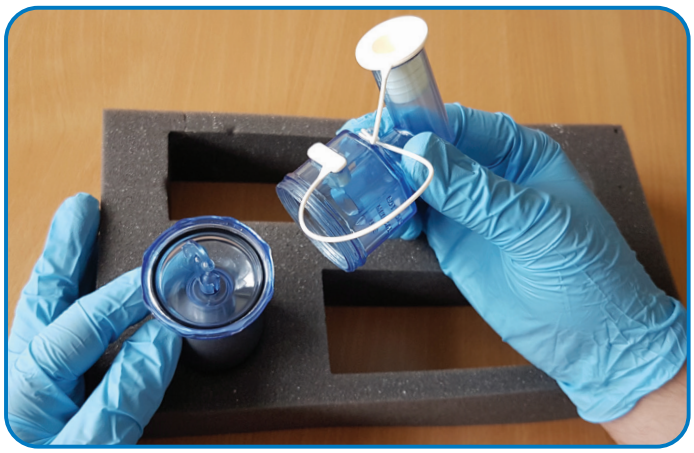
CAUTION: Your Sensitivity Solution (red) and Fit Test Solution (blue) should both be of the same type (Bitrex™ or Saccharin). Never use a combination of solution types in the same test.

CAUTION: You must use the Sensitivity Solution (red) in the Sensitivity Nebuliser and the Fit Test Solution (blue) in the Fit Test Nebuliser. These two solutions have different concentrations and confusing them would void the test.

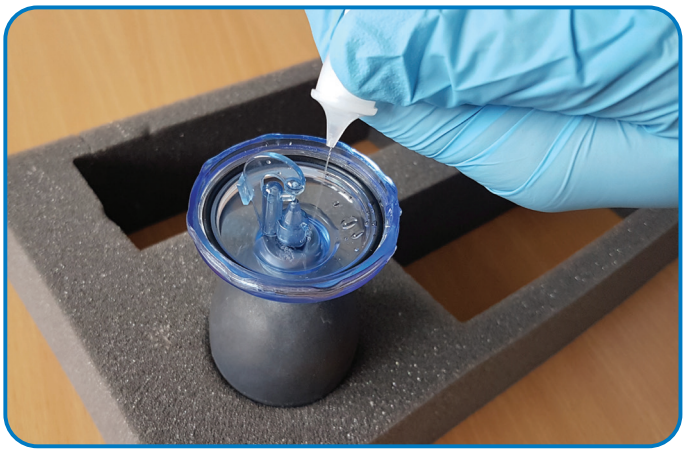
Take an ampoule and crushing sleeve.

Slide the crushing sleeve all the way onto the ampoule and keep upright.

Using your thumb and forefinger, pinch - **DO NOT BEND** - along the tube to break glass.



Remove top of nebuliser and place base upright into pre-cut foam block.



Point ampoule nozzle into the base of the appropriate nebuliser and squeeze to transfer solution.

Return crushing sleeve into the box and dispose of the empty ampoule.

Screw the top of the nebuliser back on and spray to test.

Insert both plugs until ready to use.

2.2. Assembling the Hood

- Align the base of the hood with the Velcro lining of the collar, so that the clear plastic window is the same side as the empty slots in the collar.
- Press the Velcro together to create a seal.

When performing the Sensitivity and Fit Tests ask the subject to don the hood and collar assembly using the Velcro straps by feeding them under the armpits and tighten them using the slots in the collar to secure the hood firmly in place.

3. BRIEFING THE SUBJECT

- Explain why you are conducting a Fit Test, the type of solutions you will be using and what is involved in the Fit Test.
- Inform the subject of the ingredients of the chosen Fit Test solution in case of allergies (found on the solution box).
- Ensure that the subject is fit to take the Fit Test.

CAUTION: A subject may NOT undergo a Fit Test if they have:
a cough, cold or suffering with hay fever
eaten, drank (except water) or smoked in the past 30 minutes
not clean shaven their face in the last 8 hours.

- Ask the subject what other PPE will be worn in the workplace – such as glasses, hearing aids, visors etc. Explain that any additional PPE must be worn during the Fit Test.
- Briefly explain the 7 test exercises and what they will be expected to do during the Fit Test.
- Inform the individual that this is a **taste test**. Therefore, they must **breathe through their mouth** at all times throughout the test.

NOTE: Tight-fitting RPE will only provide effective protection if the subject is clean shaven. Therefore, a subject must be clean shaven when Fit Tested and every time they use tight-fitting RPE. For further details on shaving and RPE, please refer to the Health & Safety Executive's INDG 479.

4. SENSITIVITY TEST PROTOCOL

4.1. Conducting a Sensitivity Test

- Don the hood onto the subject and secure, reminding them to **breathe through their mouth** throughout the Sensitivity Test, **this is a taste test**.

- Using the Sensitivity Test Nebuliser, remove both plugs and insert nozzle into the hood through the hole in the front. Counting the number of sprays as you go, spray the solution into the hood - away from the face, asking the subject to raise their hand when they detect a taste.

- Once the subject has detected the solution, remove the hood and make a note of how many sprays were required.

NOTE: Offer the subject a drink of water and wait 15 minutes, or until the taste has cleared from their mouth before conducting the Fit Test.

NOTE: The fit test should be conducted as a continuous test and should a tester not wish to continue directly from the sensitivity test to the fit test, the wearer should refrain from smoking, eating or drinking, except water, during that period.

CAUTION: If the Sensitivity Solution is not tasted after 30 sprays, end the test immediately and repeat the Sensitivity Solution using an alternative solution type. If neither solution is detectable by the subject, other forms of Fit Testing are available - see Appendix 2 - Trouble Shooting for more information.

4.2. Calculating the Fit Test Dosage

- The Sensitivity Test allows you to determine the number of sprays and top up sprays required for the Fit Test. As seen in the diagram (right), the Fit Test requires an initial number of sprays, followed by further sprays every 30 seconds throughout the test.

EXAMPLE: It took Freda 23 sprays to taste the solution in the Sensitivity Test. In the Fit Test Freda will require an initial dose of 30 sprays at the start of the test, followed by a further top up dose of 15 sprays every 30 seconds.

No. of sensitivity sprays	Initial dose for Fit Test	Top up dose for Fit Test (every 30 seconds)
1-10	10	5
11-20	20	10
21-30	30	15

5. FIT TEST PROTOCOL

5.1. Donning the Respirator Mask

- Instruct the subject on how to don and doff the respirator mask correctly. Please refer to the respirator mask manufacturer's instructions if it is a respirator that you are not familiar with.
- Visually check that the respirator mask is fitted correctly and check that no hair is trapped along the face seal.
- If Personal Protective Equipment (PPE) is usually worn during the course of work (including spectacles and hearing aids) it also needs to be worn for the Fit Test.

CAUTION: If PPE interferes with the Qualitative Fit Test process you may need to perform an alternative method of Fit Testing, such as the Quantitative method.

Note: Half-face respirator masks can only be Fit Tested in this method when fitted with a P3 filter(s) or combined filter(s) including a P3 component.

"Fit test half and full-face masks as negative-pressure facepiece respirators by attaching a P3 filter, or a combined filter that incorporates a P3 filter, directly to the facepiece. ***Where practicable, the filter (or facepiece adapter) should be identical to, or similar to, the type of filter normally used with the respirator,*** *ie of similar breathing resistance and weight."*

Health and Safety Executive - OC282/28

5.2. Conducting a Fit Test

- Explain to the subject that the Fit Test procedure lasts for 7 minutes. During which they must follow the exercises precisely as per your instructions.

NOTE: It's important that they avoid talking, laughing or doing anything different from the test protocol.

- If the solution is tasted at any point, the subject should raise their hand and the test be terminated.

NOTE: If a subject fails, you may retest them on the same make/model of respirator again. However, you must repeat both the sensitivity and fit test aspects of the procedure. If the subject fails twice on the same type of respirator mask it is a good indication that this particular make/model is not a good fit for their face and an alternative model should be selected for testing.

- Ask the subject whether they have had anything to eat or drink (except water), smoked, vaped or chewed gum since before the start of the sensitivity test.
- Double check the Fit Test Nebuliser is still working by removing both plugs and spraying it against a dark background.
- Don the hood onto the subject and secure, reminding them to breathe through their mouth throughout the Fit Test.
- Using the results of the Sensitivity Test, administer the initial dose and top up with the required dosage every 30 seconds to maintain the concentration of the test solution inside the hood. Using a stopwatch, each test exercise listed (right) should be performed for 1 minute. Start the stopwatch immediately after you have loaded the hood with the initial dose and be sure to add the top up dose every 30 seconds.

Step 1 Normal breathing through the mouth for 1 minute, reminding the subject that this is a taste test with no head movement or talking.

Initial dose **00.00**
Top up at **00.30s**

Step 2 Deep breathing for 1 minute - breathe slowly and deeply through the mouth with no head movement or talking.

Top up at **01.00**
Top up at **01.30s**

Step 3 Turning head side to side for 1 minute - slowly, inhale at each side through the mouth without talking.

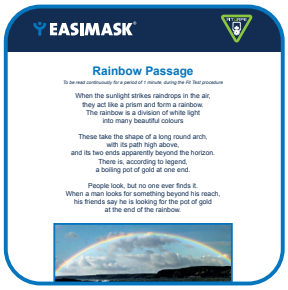
Top up at **02.00**
Top up at **02.30s**

Step 4 Moving head up and down for 1 minute - slowly, inhale in up and down position without talking.

Top up at **03.00**
Top up at **03.30s**

Step 5 For 1 minute, count backwards from 100 or read from the Rainbow Passage (see back page).

Top up at **04.00**
Top up at **04.30s**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Rainbow Passage

To be read continuously for a period of 1 minute, during the Fit Test procedure

When the sunlight strikes raindrops in the air,
they act like a prism and form a rainbow.
The rainbow is a division of white light
into many beautiful colours

These take the shape of a long round arch,
with its path high above,
and its two ends apparently beyond the horizon.
There is, according to legend,
a boiling pot of gold at one end.

People look, but no one ever finds it.
When a man looks for something beyond his reach,
his friends say he is looking for the pot of gold
at the end of the rainbow.

Step 6 Bending over repeatedly for 1 minute - bend at the waist, breathing through the mouth without talking.

Top up at **05.00**
Top up at **05.30s**

Step 7 Normal breathing through the mouth for 1 minute - no head movement or talking.

Top up at **06.00**
Top up at **06.30s**

Confidence Test On completion of a Fit Test ask the subject to remove the respirator mask within the hood.

Final top up at the end of the procedure

If you successfully complete these stages and can't taste the solution, the test is a pass.

NOTE: It is important to brief the subject that they have passed the Fit Test for this specific make and model of respirator only. Should they wish to change to a different make or model of respirator.

6. POST TEST

6.1. Record Keeping

- All Fit Tests, both passes and failures, need to be recorded as proof of compliance.
- Enclosed is a Fit Test report for you to use, additional reports can be downloaded at **www.fullsupporthealthcare.com** or you can create your own report using the guidance in the HSE's INDG 479.
- It is best practice for both the tester and subject to sign the Fit Test report confirming that a Fit Test has taken place.
- Send a copy of the Fit Test report to the subject and the department responsible for holding Fit Test records.
- Documented evidence of the results must be kept on-site for at least 5 years and up to 40 years under health surveillance.

6.2. Cleaning & Maintenance

At the end of each session:

- Discard any unused solutions from the nebulisers and rinse in warm water to prevent clogging, shake off any excess moisture then allow to air dry. If the nebulisers have been allowed to dry out you may need to use the nebuliser pin to remove any blockage from crystallised solution or replace the atomiser if blockage cannot be removed.
- Wipe the inside of the hood with a damp cloth or paper towel to remove any traces of solution, paying particular attention to the inside and outside of the clear visor.

6.3. Storage

- The Full Support Fit Test kit apparatus should be stored at room temperature in its original container away from direct sunlight and not in contact with solvents or hot/cold/wet surfaces. Fit Test solutions may have specific storage conditions – please refer to solution boxes for further details.

APPENDIX 1: AIDE-MÉMOIRE

Preparation

- Ensure both the Sensitivity Nebuliser and Fit Test Nebuliser are prepared with the correct solution type and appropriate strength, and spray on dark background to test – see 2.1.
- Assemble the hood – see 2.2.

Brief the Subject

- Inform the subject why they are undertaking a Fit Test and what is involved – see 3.

CAUTION: DO NOT perform a Fit Test on someone who has facial hair, or who has a cough, cold or is suffering from hay fever.

Sensitivity Test

CAUTION: The subject must not have eaten, drank (except water), smoked or vaped in the past 30 minutes prior to the Sensitivity Test.

- Perform a Sensitivity Test, counting the number of sprays needed before the solution is tasted – see 4.1.
- Calculate the Fit Test dosage using the table below – see also 4.2.

No. of sensitivity sprays	Initial dose for Fit Test	Top up dose for Fit Test (every 30 seconds)
1-10	10	5
11-20	20	10
21-30	30	15

Fit Test

CAUTION: The subject must not have eaten, drank (except water), smoked or vaped in the past 30 minutes prior to the Fit Test.

- Have the subject don the mask according to manufacturer's instructions – see 5.1.
- Perform a Fit Test, using the dosage calculated from the Sensitivity Test – see 5.2.
- **OPTIONAL:** Perform a Confidence Test by removing the mask in the hood – see 5.3.

Post Test

- Record results and sign/share pass certificate if applicable – see 6.1.

NOTE: Fit Test records must be kept on-site for at least 5 years.

- Disassemble, clean and store – see 6.2 & 6.3.

APPENDIX 2: TROUBLE SHOOTING

What should I do if the subject cannot detect the taste of the Sensitivity Solution?

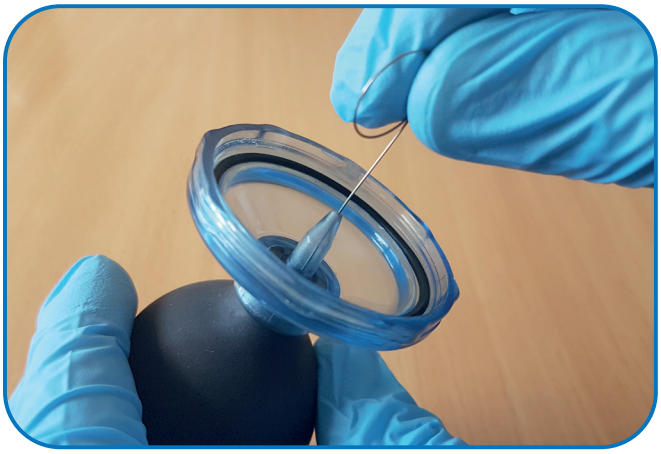
- Check to make sure the nebuliser is working. Hold it up against a dark background and squeeze the bulb, making certain a spray can be seen coming out of the nebuliser.
- Ensure both plugs have been removed, the nebuliser needs to be able to draw air in through the bottom and out through the top to work.
- Make sure that there is solution in the nebuliser.
- Make sure you are squeezing the nebuliser firmly enough to allow the solution to disperse into the hood, using two hands to operate nebuliser to reduce spillage risk and maximise efficiency of spray.
- Make sure there are no large gaps in the hood allowing the solution to escape.
- Double check that the subject has not had anything to eat or drink, chewed gum, smoked/vaped at least 15 mins prior to this stage of the Fit Test - as this can affect the subject's ability to taste the solution.
- Make sure that the individual does not have a cough or cold, or is on any medication that can affect their sense of taste.
- If the above all seems fine, please repeat the Sensitivity Test using an alternative solution.

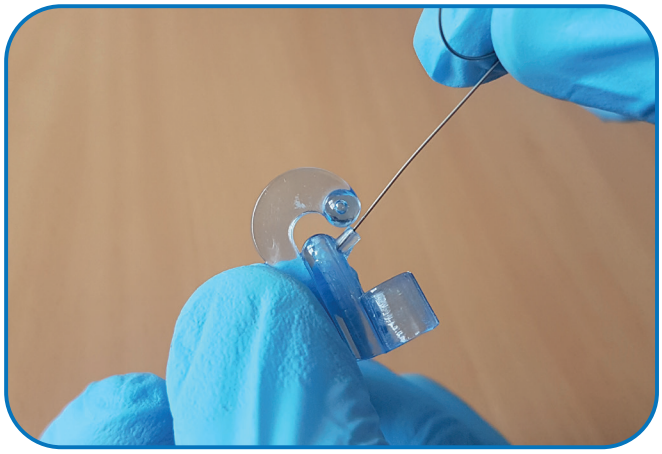
What should I do if the subject cannot taste either the Bitrex™ or the Saccharin solution?

- Check the points above first, if all seems fine then you will not be able to proceed with a Qualitative Fit Test and will need to use one of the Quantitative methods available. Alternatively loose-fitting powered air RPE can be used, where face Fit Testing is not required.

What should I do if the nebuliser is not working correctly?

- If no spray is detected the nebuliser could be blocked due to crystallised solution - please use the enclosed nebuliser pin to clear the blockage.
- Make sure the atomiser is correctly fitted in the nebuliser and firmly pushed down.
- The atomiser inside the nebuliser may need to be replaced - please replace with one of the spare atomisers included in the kit.





What should I do if I have a high Face Fit Test fail rate?

- Check to make sure the subject has removed all taste from their mouth and lips after the Sensitivity Test before proceeding with the Fit Test.
- Ask the subject to don the respirator mask outside of the room, or away from the main area in which you are Face Fit Testing – this will reduce the risk of the subject inhaling any bitter or sweet solution already in the atmosphere prior to the Fit Test.
- Make sure that the subject dons the respirator mask 5 minutes prior to Fit Testing. This will improve the fit as the respirator's seal will settle and mould to the face.
- Make sure that the subject has followed the manufacturer's instructions for donning the respirator mask.
- Ask the subject to perform a face fit check to ensure that they have equipped the respirator mask correctly prior to commencing the Fit Test.
- Inspect the fit of the respirator mask on the subject's face to ensure that it is worn correctly and that there are no obvious leaks.

What should I do if the subject can still taste the solution from the Sensitivity Test 15 mins after taking the Sensitivity Test?

- Ask the subject to return once the taste has been removed – they may need to wash their mouth/lips and/or drink water to remove the taste.
- When they return please check that they have not had anything to eat, drink (other than water), smoked/vaped or chewed gum at least 15 mins prior to the Fit Test.

What should I do if the subject is not clean shaven?

- A person who is not clean shaven cannot be Fit Tested or wear any tight-fitting RPE.
- The subject should be clean shaven on the day of the test and every time they wear tight-fitting RPE.
- If the subject is to remain unshaven the only option is a loose-fitting powered air respirator.

The subject has failed the Fit Test at the first attempt. Can I re-test?

- You can Fit Test the same person on the same make and model of respirator mask again; however the subject must undergo another sensitivity test and wear an unused respirator for the Fit Test.
- If the subject fails twice on the same make and model of respirator mask it is an indication that the model is not a good fit for their face shape and a different model should be selected that can provide them with an adequate fit.
- You can only test the subject twice on the same make and model of respirator.

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Classification	Shape	Valved / Unvalved	Filtration	Qty per box	Qty per case	Inner Box Dimensions	Case Dimensions	FSH Code	NPC
FFP3	Custom	Unvalved	>99%	10	120	28x14x13	29.3x40.6x57	FSM18	BTP349
FFP3	Duckbill	Unvalved	>99%	30	240	26.7x21.5x10	28.5x45x42.5	FSM16	BTP059

APPENDIX 3: LEGAL FRAMEWORK

The Control of Substances Hazardous to Health Regulations 2002
'This Code has been approved by the Health and Safety Executive, with the consent of the Secretary of State. It gives practical advice on how to comply with the law. If you follow the advice you will be doing enough to comply with the law in respect of those specific matters on which the Code gives advice. You may use alternative methods to those set out in the Code in order to comply with the law.

However, the Code has a special legal status. If you are prosecuted for breach of health and safety law, and it is proved that you did not follow the relevant provisions of the Code, you will need to show that you have complied with the law in some other way or a Court will find you at fault.'

Regulation 7 - Prevention or control of exposure to substances hazardous to health - Approved Code of Practice:
'Tight-fitting RPE (i.e. full and half masks) should be face-fit tested, using a suitable method, by a competent person (see regulation 7 of the MHSW Regulations and regulation 12(4) of COSHH). Fit testing will need to be repeated when there is any change in equipment or the facial characteristics of the wearer that could affect the fit. Loose-fitting devices, such as powered respirators with a visor or hood, need not be face-fit tested but still need to fit observably close to the face;'

Regulation 12 - Information, instruction and training for persons who may be exposed to substances hazardous to health - (4): 'Every employer shall ensure that any person (whether or not his employee) who carries out work in connection with the employer's duties under these Regulations has suitable and sufficient information, instruction and training.'

Health & Safety Executive's Industrial Guidance – INDG479
RPE fit testing should be carried out by a competent person. A fit tester should have adequate knowledge, and have received adequate instruction and training in the following areas:

- **selection of adequate and suitable RPE;**
- **examination of RPE and the ability to identify poorly maintained facepieces;**
- **ability to correctly fit a facepiece and perform pre-use wearer-seal checks;**
- **ability to recognise a poorly fitting facepiece;**
- **awareness of external factors that may affect the fit of the facepiece or the fit test result;**
- **the purpose and applicability of fit testing;**
- **the differences between, and the appropriate use of, QNFT and QLFT methods;**
- **the purpose of the fit test exercises;**
- **preparation of facepieces for fit testing;**
- **how to carry out diagnostic checks on the facepiece and the fit test equipment;**
- **capabilities and limitations of the fit test equipment;**
- **how to perform a correct fit test with the chosen method;**
- **awareness and knowledge of how to prevent and correct problems during fit testing;**
- **interpretation of fit test results;**
- **an understanding of the differences between fit factors, workplace protection factors, assigned protection factors and nominal protection factors; and**
- **HSE Regulations and the Approved Codes of Practice that deal with fit testing of RPE.**

For more information and to read these documents in full please visit:

www.fullsupporthealthcare.com

APPENDIX 4: IMPORTANT NOTICE

Warranty

In the event of the Fit Test kit apparatus being found to be defective in material or workmanship, Full Support's only obligation and exclusive remedy shall be to repair, replace or refund the purchase price of such parts or products upon the timely notification thereof and the substantiation that the product has been stored, maintained and used in accordance with the written instructions for use provided.

Limitations of liability

Except as provided above, Full Support shall not be liable or responsible for any loss or damage whether direct, indirect, incidental, special or consequential, arising from the sale or use or misuse of this Fit Test kit, or the user's inability to use this product.

The future of RPE monitoring, recording and compliance

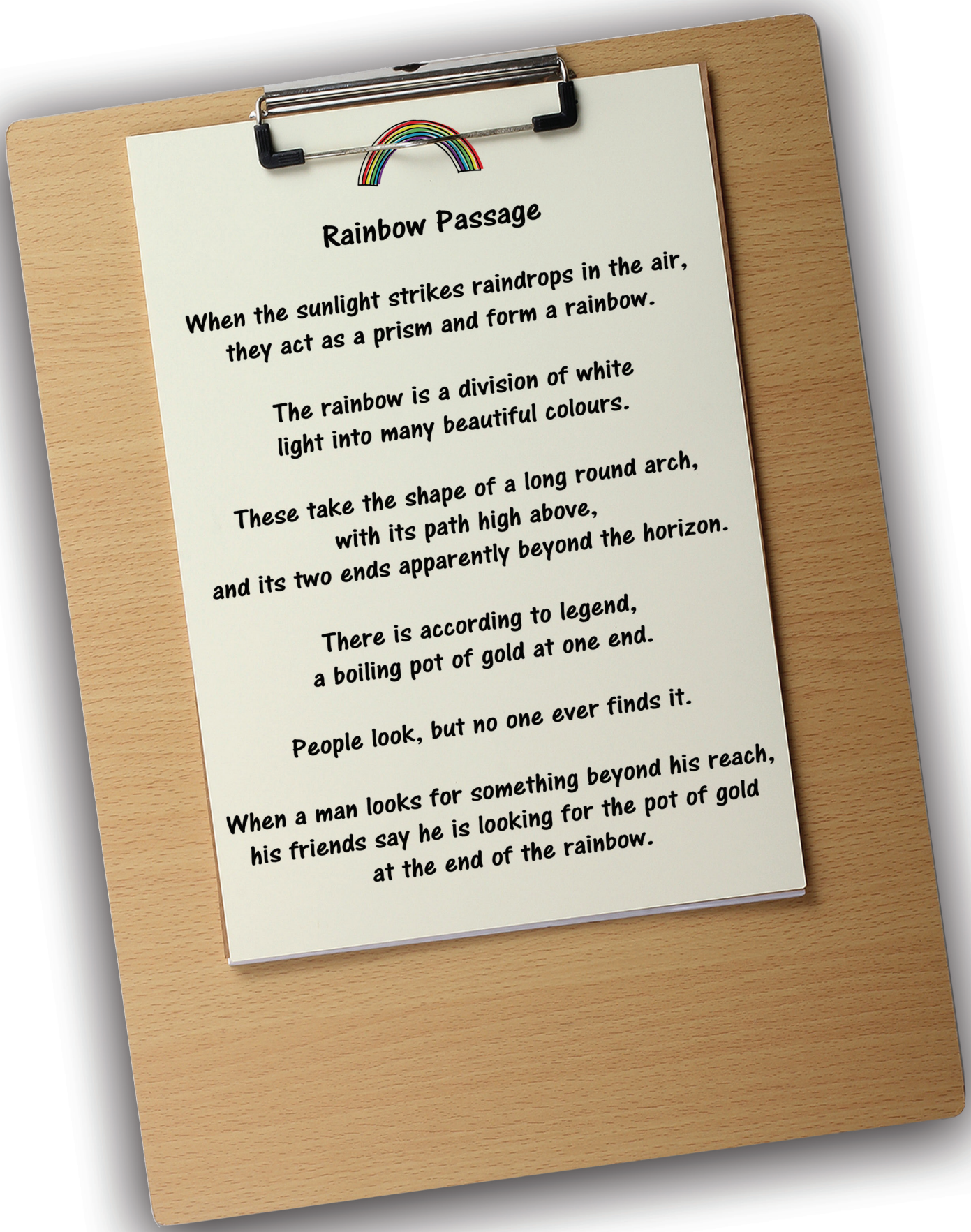
A new and innovative management system that empowers organisations to accurately monitor and record their use of RPE across multiple sites - ensuring confidence, competence and compliance to HSE legal regulations.

Data Management Centre Vigilant Safety Solutions® is an innovative and dynamic platform, ensuring organisational compliance with legal standards and internal policies.
Flexible configuration ● GDPR ready ● Cloud-based digital record keeping.

Reporting Suite Accessible via any internet-connected PC and a log-in, the Reporting Suite lets clients instantly monitor and report on their organisation's RPE records in real-time.
HSE audit compliant reporting ● Infographic displays ● Detailed analytics.

Field Application Pre-installed onto Android tablets, the Field Application is an essential tool for undertaking Qualitative and Quantitative Fit Testing, monitoring and recording. **Fit Test assistance video guides ● Signature & picture ID recognition ● Training administration management.**

For further details please visit
www.fullsupporthealthcare.com



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