



Safety & Protection



Putting Safety First

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Introduction

As one of the world's leading suppliers of safety and protective equipment our goal is to ensure that we satisfy your needs through the provision of exceptional leadership, expertise, quality and service excellence. Our success is measured by your success. If we can make your life and that of your workforce easier, healthier, safer and more productive we are moving in the right direction.

We believe that health and safety is first and foremost about safeguarding worker welfare. A secure, safe working environment is paramount in any business. But we also believe that improving worker protection, comfort and productivity is a more ambitious goal. One we firmly believe in.

At 3M we don't take safety for granted. The health and welfare of your workforce depends on it. So by working in association with skilled safety practitioners, partners and customers, our people are committed to ensuring that we help you create an environment that protects your workforce – effectively, efficiently and economically.

Your success is our achievement. To deliver on our commitment requires a culture of accountability, customer inspired innovation, knowledge and expertise, fuelled by a deep understanding of your needs and the safety needs of your workforce.

With our global technology, manufacturing and knowledge network we do more than simply develop products that ensure your workforce can operate in safety and comfort.

We go further to provide good design, cross-over compatibility, expertise, comprehensive support and a continuously evolving range of product options.

You can buy 3M confident in the knowledge that products will do the job and more. You can also rest assured that our product range is backed by first class support materials and advice, so you'll always know where to turn.

Bodyshop Hazards Introduction

This document aims to explain some of the hazards encountered in typical bodyshop applications and their associated health effects. It suggests the usage of appropriate 3M Personal Protective Equipment (PPE) as a last resort to reduce exposure to respiratory, hearing, eye and skin hazards. Whatever the situation, a thorough risk assessment should be carried out to ensure that the correct PPE is selected. The sorts of considerations to take into account include:

- What hazards are there?
- How are they produced?
- Can they be controlled by means other than PPE?
- If not, what level of protection is required and can it be worn comfortably?

Further Information

The HSE website www.hse.gov.uk contains detailed information and guidance in its Motor Vehicle Repair, Asthma and Science and Research sections.

Safety Selection Guide

This guide is only an outline. It is designed to help focus on the most appropriate products in the 3M range for various applications and hazards. It should not be used as the only means of selecting a product. It is ultimately the responsibility of the employer to select the most appropriate PPE based on a full risk assessment. Details regarding performance and limitations are set out on the product packaging and data sheets.

Selection Guide						
3M Product	2-Pack Paint Spraying	Polishing and Hand Finishing	Sanding and Grinding	Welding	Coatings, chemical handling, adhesives and sealers	Paint rectification
Welding Shield (3M™ Speedglas SL Welding Shield)				✓		
Welding Respirator (3M™ 06920 Disposable Respirator)				✓		
Disposable Particulate Respirator (3M™ 06923 or 3M™ 06922)			✓			✓
Reusable masks (3M™ 06941 Maintenance Free Reusable Respirator or 3M™ 7500 Reusable Half Mask with 3M™ 06915 A2 filter)					✓	
Supplied Air (3M™ Visionair or 3M™ 06971 with Full face System or 3M™ 06971 with Half Mask System)	✓					
Coveralls (3M™ 50198 Protective Coverall)	✓	✓	✓		✓	✓
Safety Spectacle (Polycarbonate Lens) (3M™ 2720 or 2740 range)		✓				✓
Goggle (Acetate Lens) (3M™ 2790A Goggles)	✓				✓	
Goggle (Polycarbonate Lens) (3M™ 2790 Goggles)			✓			
Ear Protection (3M Ear Plugs and Muffs)			✓			

For advice, information and technical support on the selection and use of 3M Personal Protective Equipment simply contact the 3M Health and Safety Helpline.

Advice
Information
Technical
Support



Monday to Friday 9am to 5pm

0870 240 4203

UK

1 800 509 402

Ireland



Hazard Information

Sanding and grinding

Sanding and grinding activities generate airborne particles such as filler dust. When inhaled, larger particles can cause irritation of the nose, throat and upper airways.

Fine particles can penetrate into the lung and can cause tissue damage leading to short and long-term respiratory health effects/diseases.

Filtering respirators are widely worn in bodyshops to reduce exposure to particles. They work by trapping particles as the ambient air passes through them when the wearer breathes. Filtering respirators must seal adequately to the wearer's face, therefore, wearers must be clean shaven and have passed a face fit test. For further information, please see the 3M Technical Bulletin, Respirator Facepiece Fit Testing.

Particles generated by sanding and grinding can also impact onto the eyes causing injury. Goggles with impact resistance marked EN166 B are generally used to protect the eyes.

Harmful levels of noise can also be generated, particularly during grinding. Exposure to noise can lead to temporary or permanent loss of hearing. The health effects of exposure to noise are generally not immediate – the hearing deteriorates little by little, getting worse with time and is often not noticed until it's too late.

Paint rectification

Machine compounding or polishing generates airborne particles. When inhaled, larger particles can cause irritation of the nose, throat and upper airways. Fine particles can penetrate into the lung and cause tissue damage leading to respiratory discomfort and diseases. Disposable filtering respirators are widely used in bodyshops to reduce exposure to these particles.

Products available:

- **Disposable particulate respirator**
 - **Foldable**
 - **Cup Shaped**
- **Eyewear**
- **Hearing protection**

Welding



Welding produces many hazards – electrical hazards, light hazards, metal fume, thermal hazards and sometimes gases. Metal fume consists of very fine particles which are lung damaging and cause short term adverse health effects such as metal fume fever and other longer term respiratory illnesses. Welding shields must be used to provide eye and face protection. Shields with auto-darkening lenses improve both safety and productivity. Respiratory protection worn under the welding shield will reduce exposure to metal fume.

Products available:

- **3M™ Speedglas SL Welding Shield**
- **Welding fume respirator**

Coatings, adhesives and sealers



Coatings, adhesives and sealers produce airborne hazards whether they are sprayed or brush/cloth applied. When they are sprayed, a fine mist is generated together with solvent vapour. When they are brush/cloth applied solvent vapour will become airborne. Solvent vapours, once inhaled, can be absorbed into the blood and if in sufficient quantity, cause damage to the liver, kidneys and brain. Filtering respirators offering protection against particles and vapours are typically used in these applications. Goggles should be used to protect the eyes.

Products available:

- **Maintenance free respirator**
- **Eyewear**

Disposable Particulate Respirators

State of the art features such as our 3M Advanced Electret Filter material which offers exceptional low breathing resistance and the 3M Cool Flow Valve that reduces heat build-up, set us apart from conventional respirators on the market. Combined with an ergonomic design for superior comfort, our wide range of patented technologies guarantee to deliver easy breathing and optimal protection against particle hazards. All products featured in this section are exempt from record keeping requirements.

Selecting and specifying the appropriate respiratory protective equipment may appear daunting, with multiple factors to consider – the equipment needs to not only provide appropriate protection for the job, but also be comfortable enough for the individual user to wear during the whole period of exposure.

The Selection of Respiratory Protection Equipment follows a basic 3M four-step method:

Step 1	Identify the hazards – dust, metal fume, gas, vapour etc
Step 2	Assess the risk – assess the hazard levels against safety standards and consider other protection – skin and eye
Step 3	Select a suitable respirator – disposable, half mask, full face, airline
Step 4	Training in fitting and use – to optimise respiratory protection

Which Protection FFP Factor?

	FFP2 Respirators	FFP3 Respirators	FFP2 Welding Respirators
Protection Factor	APF 10 NPF 12	APF 20 NPF 50	APF 10 NPF 12
Typical Use	Moderate levels of fine dust (up to 10 x WEL) and oil or water based mists	Higher levels of fine dusts (up to 20 x WEL) and oil or water based mists	Moderate levels of fine dust (up to 10 x WEL), oil and water based mists, metal fume and ozone (10 x WEL) and organic vapours below WEL.

Classification Explained

When correctly used by a trained wearer who has passed a face fit test, an FFP2 respirator should reduce exposure to airborne particles by a factor of 10.

Style of Respirator

3M™ Cup-shaped Respirators

Excellent fit over a wide range of face sizes provided by convex shape, nose clip and twin strap design.
Easy to fit.
Durable, collapse resistant inner shell.



3M™ Foldable Respirators

Ultra soft, flexible and comfortable fit resulting from the 3 panel design. Individually packed, foldable design prevents contamination before use and allows easy storage.



Speciality Respirators

The 3M™ 9914 Speciality Respirator offers relief against low levels of fine dusts and mists as well as nuisance odours such as hand applied polish.

● Robust shell and cup design

Conforms well to most face shapes and sizes.
Maintains its shape well during use.
Is collapse-resistant.

● 3M Advanced Electret Filter Media

Effective filtration combined with low breathing resistance.
Consistent high quality performance.

● 3M™ Cool Flow Valve

Effective removal of heat and moisture build up provides a cooler and more comfortable wear.
Removes exhaled air and minimises the risk of misting eyewear.

● Colour coded straps

Easy to recognise performance level by colour coded straps (yellow = FFP1).

● Carbon layer

Provides protection against nuisance level organic vapours (below WEL).

Compatibility

3M Disposable Particulate Respirators are compatible with other 3M products:

Eyewear (page 26-31) 

Hearing Protection (page 23-25) 



3M™ 9914 Speciality Respirator (valved)

EN149:2001 FFP1

APF 4

NPF 4

Advisory Note:

Please note this is an FFP1 respirator intended for use with low level particulates and is therefore unsuitable for moderate or high levels of fine dusts and mists.

Other Speciality Respirators available

3M™ 06998 Speciality Respirator (yellow=FFP1)



Cup-Shaped Valved Respirator

The 3M™ 06922 Disposable Particulate Respirator provides protection against moderate levels of fine dusts and mists.

- **Robust shell and cup design**

Maintains its shape well during use.
Conforms well to most face shapes and sizes.

- **3M Advanced Electret Filter Media**

Effective filtration combined with low breathing resistance.
Consistent high quality performance.

- **3M™ Cool Flow Valve**

Effective removal of heat and moisture build up provides a cooler and more comfortable wear.
Removes exhaled air and minimises the risk of misting eyewear.

Compatibility

3M Disposable Particulate Respirators are compatible with other 3M products:

Eyewear (page 26-31)

Hearing Protection (page 23-25)



**3M™ 06922
Dust/Mist Respirator**

EN149:2001 FFP2
APF 10
NPF 12

Selection Guide			
Product Number	Sanding	Grinding	Paint Rectification
06922	✓	✓	✓

Foldable Valved Respirator

The 3M™ 06923 Disposable Particulate Respirator provides protection against moderate levels of fine dusts and mists.

- **Foldable – 3-panel design**

Fits a wide range of face shapes and sizes.
Accommodates greater facial movement during speech so much more comfortable to wear.
Easy to store when not in use.

- **Nose Foam**

Made of sweat absorbent material.
Soft on the skin.
Easy to achieve compatible fit with eyewear to reduce the risk of misting.

- **3M™ Advanced Electret Filter Media**

Effective filtration combined with low breathing resistance.
Consistent high quality performance.

- **3M™ Cool Flow Valve**

Effective removal of heat and moisture build up provides a cooler and more comfortable wear.
Removes exhaled air and minimises the risk of misting eyewear.

- **Headbands**

Secure fits evens out pressure to ensure comfort on the neck, face and head.

Individual packaging

Hygienic packaging protects the respirator from contamination before use.
Allows practical storage and dispensing in the workplace.



**3M™ 06923
Dust/Mist Respirator**

EN149:2001 FFP2
APF 10
NPF 12

Selection Guide			
Product Number	Sanding	Grinding	Paint Rectification
06923	✓	✓	✓

Welding Fume Respirator

3M™ 06920 Welding Fume Respirator is designed specifically for welding applications, providing protection against moderate levels of fine dusts and mists, as well as welding fume and ozone gas.

- **Robust shell and cup design**

Flame retardant outer surface minimises the effect of welding splatter.
Conforms well to most face shapes and sizes.
Is collapse-resistant.

- **3M™ Cool Flow Valve**

Effective removal of heat and moisture build up provides a cooler and more comfortable wear.
Removes exhaled air and minimises the risk of misting eyewear.

- **Adjustable braided headbands**

Help achieve a firmer fit and provide comfort to face, head and neck.

- **Carbon layer**

Provides protection against ozone gas and relief from nuisance level odours (below WEL).



**3M™ 06920
Welding Respirator**

EN149:2001 FFP2
APF 10
NPF 12

Super Light Welding Shield

Speedglas™ super light auto-darkening welding shield, uses liquid crystal technology to ensure outstanding optical quality and switching performance. The Speedglass SL Welding Shield is non-absorbent, so it retains its performance in high humidity.

- **Easily adjustable headband**

Quick release mechanism enables the headband to be loosened without having to remove gloves.
Pattern of holes enhances wearer breathability.

- **Outer Protection Plate**

Quickly removed and replaced by hand.

- **Snap Adjustment**

Four settings enable the shield to be moved either closer or further away from the wearers face.
Back and forth adjustments allow for personal preferences, for example differences in nose sizes, safety glasses or use of 3M respirators.

- **Adjustable angle**

Adjust the tilt of the shield to set a preferred viewing angle.

- **Auto darkening filter**

Suitable for most arc welding processes.
Four user-selectable sensitivity settings.
Five dark state levels: 8,9,10,11 and 12.

- **Motion Detector**

Automatically turns the filter on and off as the welder picks up or sets down the shield.

- **360 gram lightweight shield**



**Speedglas™ SL
Welding Shield 701120**

Technical Data 3M™ Speedglas™ SL Welding Shield

Approvals Eye Protection Face Protection	Conforms to EN 379 EN 175
Switching time, light-to-dark	0,1 ms (+23°C)
Switching time, dark-to-light	60 – 250 ms
UV/IR Protection	Shade 12 (permanent)
Viewing Area	42 x 93 mm
Light state	Shade 3
Dark state	Shade 8 – 12 (variable)
Weight	360 g (incl welding filter)
Battery type	Lithium 3 Volt
Battery life time	1 500 hours
Range of temperature Use Storage	-5°C to +55°C -30°C to +70°C

Note: The Speedglas SL welding filter cannot be installed into the Speedglas 9000 or Speedglas Utility shields. The Speedglas SL shield is not available with CO₂ reduction, SideWindows™ or powered and supplied air respiratory systems.

Maintenance Free Respirator

3M™ 06941 Respirator incorporates a unique design with integral filters. They are exempt from the maintenance requirements of the COSHH regulations if disposed of within one month.

● **Flexible face piece**

Low profile design for better peripheral vision.
Lightweight well balanced design.
Soft, non-allergenic material with textured face seal.

● **Built in filters**

No maintenance records are required if it is disposed of within one month.
Four versions available, each offering protection against differing hazards throughout industry.
One piece maintenance free construction.

● **Exhalation Valve**

Central position for effective removal of heat and moisture build up within face piece.

● **Adjustable head cradle and neck straps.**

Stable secure fit.
Easy to fasten neck strap.

Cost effective

Use until damaged, particulate filters clog or gas filters become saturated or after one month (whichever occurs first).

Convenience

Resealable bag provides convenient and clean storage between uses.

Extras

Spray-mist pre-filter is available to help prolong the life of the main particulate filters (3M 400 (06770) Overspray Guard).



3M™ 06941 Half Mask

EN405:2002
FFA1P2D

Other 3M products	
	3M™ 06942 FFA2P3D

Accessories for 3M Reusable Respirators	
	3M™ 400 (06770) Overspray Guard
	3M™ 105 (06775) Face Seal Wipe
	3M™ 106 Carry bag

Product Number	Coatings	Adhesives	Sealers
06941	✓	✓	✓
06942	✓	✓	✓

Premium Comfort Half Masks

3M™ 7500 Series Half Masks offer unrivalled comfort from the exceptionally soft silicone face seal.

● **Nose Bridge**

Special thin nose bridge that improves flexibility and lowers pressure in this region – the most commonly sited area for face seal discomfort.
Designed to be compatible with the 3M™ Eye Protection range.

● **Head Harness**

Reduces pressure on back of head and tension on face.
Drop down capability for when not in use.
Excellent compatibility with headgear.

● **Soft pliable silicone face seal**

Provides exceptional comfort and performance.
Silicone material provides more flexibility and lighter contact with face.
Fits an extremely broad range of face shapes and sizes.
Weephole helps eliminate sweat accumulating between face and face seal.

● **3M™ Cool Flow Valve**

Improves user comfort by lowering the breathing resistance rapidly reducing heat and moisture build up by efficiently removing exhaled breath.
Reduces the fogging of eyewear as the valve directs exhaled air downwards.

● **Filters**

Twin side mounted filters give more balanced feel and better field of vision.
Integral filter seal rings reduces need for separate gasket.
Large range of cost-effective filters.
Swept back unique 3M bayonet filter attachment system provides a safe and secure fit.
Low profile of mask and filters on the face so easier to fit under welding shields and visors.

Plus

Full range of spares available.

Available in two sizes: 3M 7502, 3M 7503

Available in a starter pack as well: 06782 - medium starter pack, 06783 - large starter pack



3M™ 7502 Half Mask

Medium
EN140

Starter pack contains:
7500 Series Half Mask
Pair of 6915 A2 filters
Pair of 06925 P2 filters
501 filter retainer
Ten 105 face seal wipes

Accessories for 3M Reusable Respirators	
3M™ 105 (06775) Face Seal Wipe 	3M™ 106 Carry bag 

Full Face Mask

The 3M™ 6000 Series Full Face mask is one of the lightest, most well balanced masks available with long wearing comfort and an easy to fit design.

● **Functional Design**

Soft, hypo-allergenic elastomeric face piece.
Extremely lightweight (400 grams) for high comfort (excludes filters).

● **Full Face Lens**

Broad field of vision.
Polycarbonate lens, scratch and impact resistant to EN166:B.

● **4 Strap Head Suspension**

Easy to put on and take off.

● **3M™ Cool Flow Valve**

Helps reduce heat build-up inside the respirator.
Humid exhaled air escapes efficiently through the valve.
Centre position and innovative design effectively manages the removal of exhaled air.

● **Filters**

Twin filter design gives a more balanced fit by avoiding a heavy single filter at the front.
Swept back filter positioning for unobstructed field of vision.
Large range of cost-effective filters.
Unique 3M bayonet filter attachment system for a safe and secure fit.



3M™ 6800 Full Face Mask

Medium
EN136:Class1

Available in three sizes distinguished by different colours

3M 6700 - small (light grey)
3M 6800 - medium (grey)
3M 6900 - large (dark grey)

Accessories for 3M Full Face Mask

3M™ 105 (06775)
Face Seal Wipe

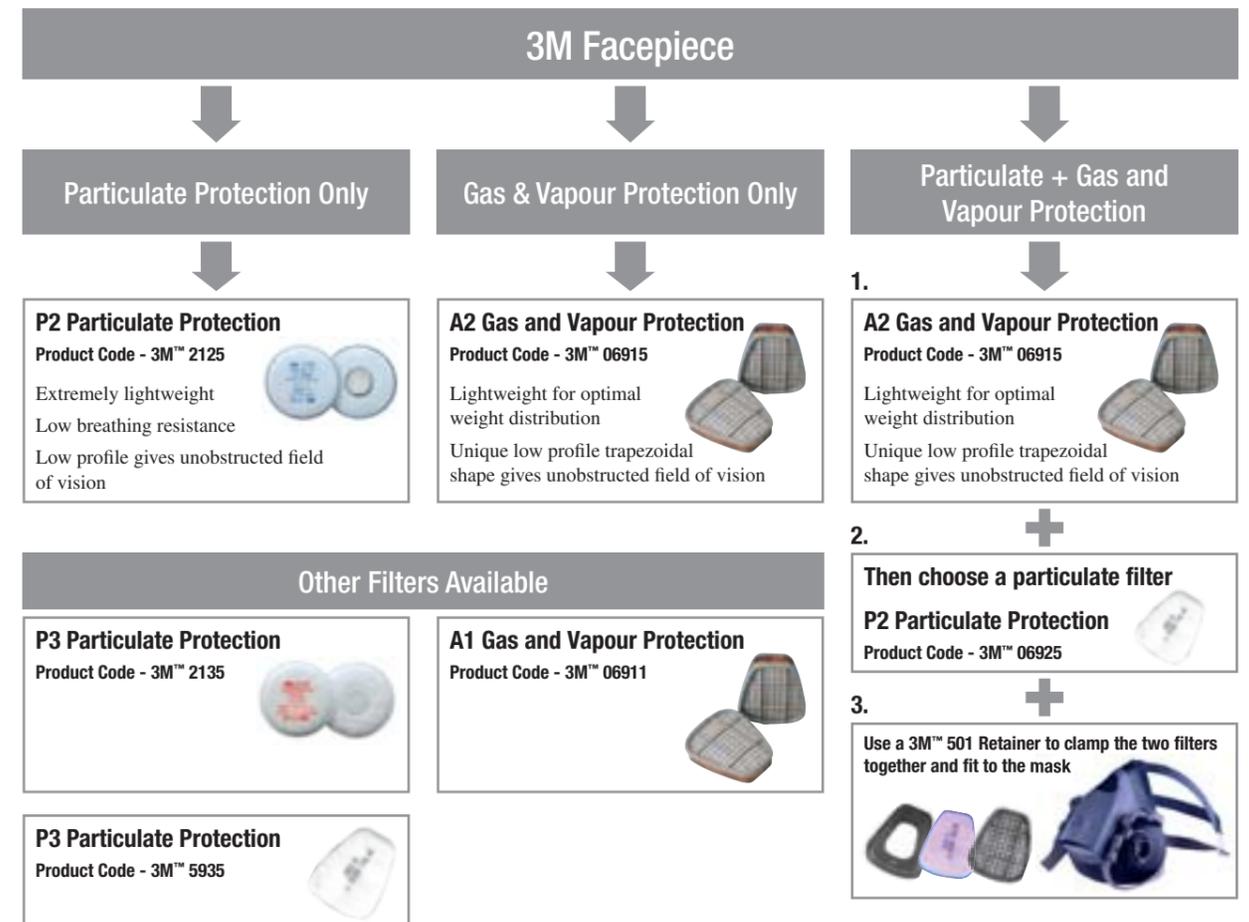
Reusable Respirators and Filters

Over prolonged periods of use, 3M reusable respirators offer exceptional value and quality, and all combine unrivalled comfort with ease of use.

The following diagram is designed to help you select the correct 3M filter product code for your application.



Depending on the filter you select, your respirator can protect against particulates, gases and vapours or a combination of the two. To make life easier, the reliable 3M Bayonet Filter Fixing System allows the filters to be clicked into place quickly and securely.



Other Filters Available

P3 Particulate Protection Product Code - 3M™ 2135 Extremely lightweight Low breathing resistance Low profile gives unobstructed field of vision	A1 Gas and Vapour Protection Product Code - 3M™ 06911 Lightweight for optimal weight distribution Unique low profile trapezoidal shape gives unobstructed field of vision
P3 Particulate Protection Product Code - 3M™ 5935	

How long will the filter last?

Gas/vapour filters should be changed as soon as "breakthrough" occurs (i.e. safe levels of hazard can be smelt or tasted)*
 Particulate filters should be changed when breathing resistance becomes difficult (i.e. breathing is against a clogged filter)
 For substances with low warning properties (i.e. with no or little smell or taste e.g. isocyanate paints), supplied air respirators should be used rather than a mask and filters, since "breakthrough" cannot be detected with this type of substance.
 * It is advised to not routinely rely on smell or taste but to change filters before breakthrough. Your company risk assessment and certain 3M filters may also specify different instructions on a more regular filter change schedule. Please read all manufacturers instructions before use.

Filter Selection Guide

Product Number	Sanding	Grinding	Paint Rectification	Coating	Adhesives	Sealers
2125	✓	✓	✓			
2135	✓	✓	✓			
06915				✓	✓	✓
06911				✓	✓	✓
06925	✓	✓	✓			
5935	✓	✓	✓			

Hazard Information

Spray painting vehicles

Spray painting of vehicles is one of the main activities undertaken in a bodyshop. As a recommended step towards reducing exposure to paint mist, paint spraying should always be carried out in a spray booth or spray room.

Spray booths:

Spray booths are specially designed to extract and filter the air inside them thus reducing the sprayer's exposure to paint mist and minimising the chance of contaminated air affecting other areas of the bodyshop.

Spray rooms:

Spray rooms are dedicated rooms constructed with fans in the walls. The fans draw the contaminated air from the room. The air removed from the room must be effectively filtered to prevent contaminated air re-circulating into the room or affecting other areas of the bodyshop.

Health hazards:

The primary hazard to health from paint spraying in bodyshops is through exposure to isocyanates.

Isocyanates are present in the hardener or activator component of 2-pack paints. When the mixed paint is sprayed, the isocyanate is present in the paint mist created by the over-spray. The paint mist is very fine and is invisible under normal lighting.

Isocyanates are potent respiratory sensitisers and a main cause of occupational asthma in the workplace today. Exposure to isocyanates can lead to the sprayer becoming sensitised, meaning that further exposure, even to very small amounts, can lead to breathing difficulties associated with asthma, such as an asthma attack.

An unprotected sprayer will be exposed to high levels of isocyanates in a spray booth and very high levels in a spray room. Therefore, appropriate respiratory protective equipment (RPE) must be worn during spraying.

The serious consequences of exposure to isocyanates have led to the publication of detailed guidance from the Health and Safety Executive (HSE).

RPE to reduce exposure to isocyanates:

Filtering respirators are unsuitable for the spraying of 2-pack paints. Sprayers are required to wear air-fed RPE. One of the following three types of RPE should be considered:

Air-fed visor:

Air-fed visors are commonly used by sprayers. When properly worn and maintained they will significantly reduce exposure to isocyanates. One common misuse of this equipment is the lifting of the visor to inspect recently completed work. While the visor is lifted the sprayer could inhale the fine paint mist that surrounds them, leading to isocyanate exposure.



Product Available

- Visionair

Air-fed full face mask:



Air-fed full face masks also provide a good level of protection against paint mist and they are less prone to misuse by lifting. Visor peel-offs are often used to allow the sprayer to keep a clear view of their work.

Product Available

- Full Face Mask (6000 Series) with Supplied Air System (06971)

Air-fed half face mask:



Air-fed half face masks should be used with separate eye protection. As this equipment has a lower level of protection than that traditionally used for spraying, current HSE guidance requires that wearers undergo biological monitoring (urine testing) to check that sufficient protection is achieved. This is particularly important in spray rooms where higher concentrations of isocyanates will be encountered.

Product Available

- Half Face Mask (7500 Series) with Supplied Air System (06971)
- Acetate Lens Goggles (2790A)

All of these types of equipment are fed by an air supply from a compressor. It is important that the air supplied is available in sufficient volume continuously and is of acceptable breathable quality. To ensure this, air supplied to RPE must be regularly tested for quantity and quality as per the European standard EN 12021. Please see the 3M Technical Bulletin, Breathable Air Quality for further information.

Clearance time

It is known that exposure to isocyanates occurs when RPE is removed after a paint job and before the invisible paint mist has had a chance to adequately clear from the spray booth or room. Guidance from the HSE advises that clearance can take up to 5 minutes in a spray booth and can be more than 20 minutes in a spray room. For further information on calculating clearance times, please see the HSE website.

Skin protection

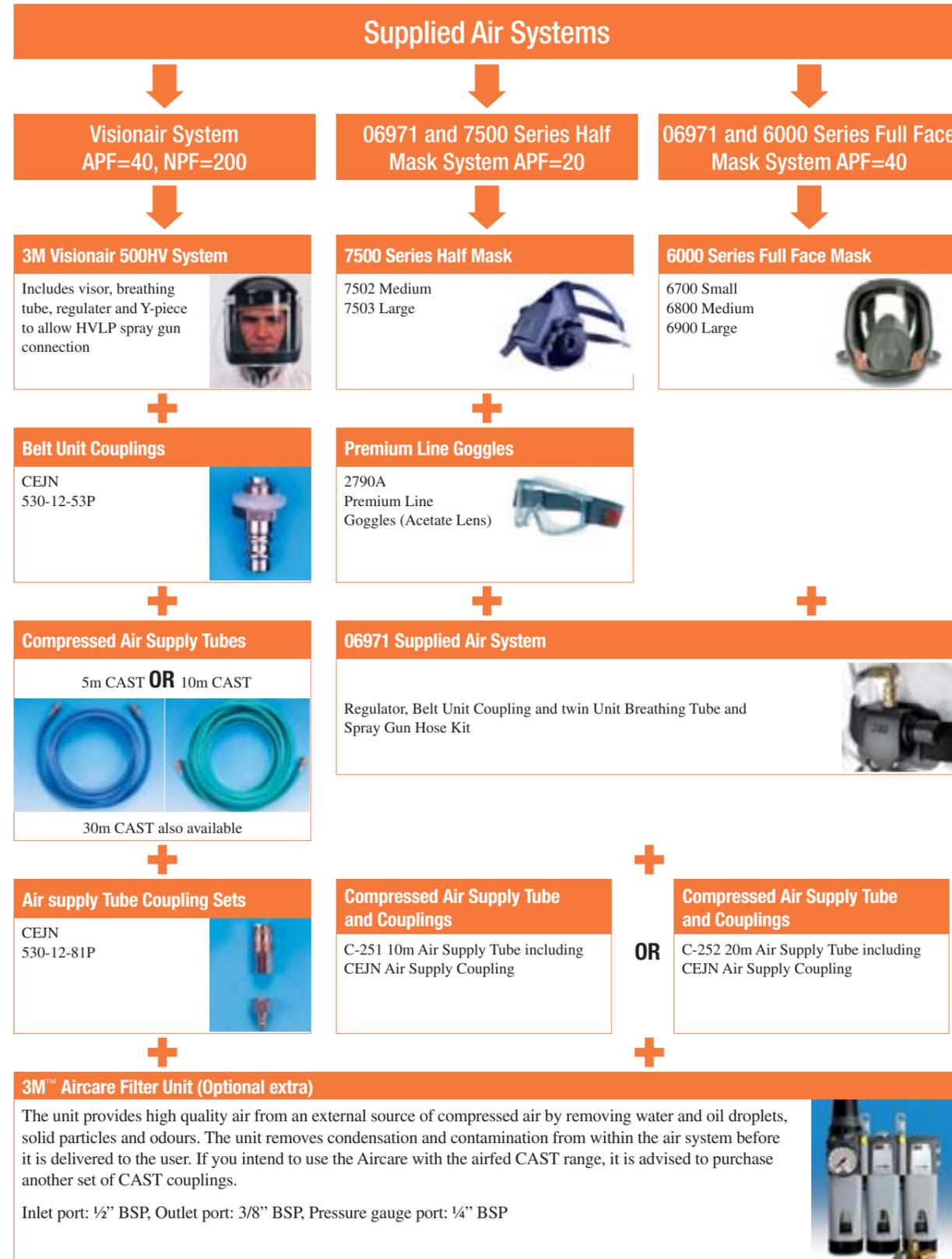
Disposable, hooded coveralls together with nitrile gloves are generally used by sprayers.

Product Available

- Protective Coverall

Supplied Air Systems

3M™ Supplied Air Regulators provide a smooth adjustable airflow with optimum comfort. They offer protection against dust, mists, fumes, gases or vapours plus combination hazards such as paint spray.



Supplied Air Visor System

3M™ Visionair™ durable, lightweight air-fed paint spray respirator with clear view headtop provides smooth airflow and offers protection against dusts, mists, fumes, gases or vapours.

- **Visual Air Flow Indicator**
Immediately alerts the wearer of a reduction in airflow. Indicator within the wearer's field of vision.
- **Adjustable headband ratchet**
Ensures a comfortable fit.
- **Flip-up visor**
Broad field of vision. Replaceable.
- **Replaceable face seal**
Increased hygiene
- **Adjustable lightweight regulator**
Changeable to left or right hand use. Low profile, robust and well balanced ensuring wearer comfort. Quick release breathing tube.
- **Overhood**
Protects the wearer from backspray
- **Spray gun attachment (included)**
Easy to attach.
- **Protection**
Suitable for most paint spraying applications.



3M™
Visionair

EN270
APF 40
NPF 200

Accessories (sample list only)	
CAST (10m)	308-00-30P
Belt unit couplings (CEJN)	530-12-53P3
CAST couplings (CEJN)	530-12-81P3
Aircare filtration unit (Wall Unit)	ACU-01

Replacement Parts	
Overhood	57005
Foam face and brow seal	57006
Acetate visor	57007
Peel off visor	57008
Comfort band	57009
Filter Element	57010
Face seal	50024
Foam brow seal	50025

Air Quality and Fit Testing

Respirator Facepiece Fit Testing

Fit testing checks that a respirator provides an adequate seal to the wearer's face and is an industry wide requirement.

Fit testing should be carried out on all wearers of respirators with tight fitting facepieces where testing has not been carried out before. If necessary testing should be repeated at appropriate times, such as if the wearer's face shape changes due to weight loss or gain, or facial surgery.

3M Fit Test Kits



3M offer two fit test kits FT10 (Sweet) and FT30 (Bitter). Each kit contains a hood and collar assembly, two nebulisers, sensitivity solution, test solution and detailed user instructions. A training CD is also included which features a step-by-step video demonstration of how to use the kit.

For full face masks, a quantitative fit testing method should be used. For further information about the 3M quantitative fit testing service contact our Safety Service Co-ordinator on 0161 237 6278.

3M Breathable Air Quality Testing

The COSHH (Approved Code of Practice) requires that air supplied to breathing apparatus should be tested at least every three months to ensure that it meets the standard for air purity as laid out in EN 12021.

The 3M Breathable Air Quality Service provides:

- A briefing where required, on the test procedure
- Testing of the breathable air for oxygen levels and contaminants e.g. water, oil, carbon monoxide and carbon dioxide
- Flow tests to ensure that the air is supplied at the required pressure and flow rates
- Advice on suggested actions in the result of a failure
- Written set of test results
- Automatic notification for re-test as per your requirement

For further information about this service please contact our Safety Service Co-ordinator on 0161 237 6278.



Hearing Protection

3M has particular expertise in developing solutions for a wide range of applications and offers a comprehensive range of hearing protective products from disposable earplugs to hi-tech electronic ear muffs. All our hearing products are designed to provide protection, comfort and ease of use.

Excessive Noise and Hearing Loss

Excessive levels of noise can damage the sensory "hair" cells in our ears. These cells help process mechanical energy into the tiny electrical nerve impulses that our brain perceives as sound. Damage to these cells therefore results in a loss in our ability to hear certain sounds.

Hearing loss caused by exposure to noise at work continues to be a significant occupational illness. Recent research estimates that 170,000 people in the UK suffer deafness, tinnitus or other ear conditions as a result of exposure to excessive noise at work*.

Hearing protection can play a vital part in avoiding employee ill-health and the possibility of costly future litigation against the employer.

Changing Regulatory Requirements

As of April 2006 a new European Directive, 2003/10/EEC has been transposed into national law. Under the new legislation a new Limit Value of 87dB(A) at the ear must not be exceeded, and hearing protection must be made available where the sound levels are at or above 80dB(A), and strictly enforced where the sound levels reach or exceed 85dB(A).

Whilst a reduction in sound level by 5dB(A) may not at first glance appear significant, it is worth noting that a reduction of just 3dB(A) roughly equates to halving the sound energy level.

Compatibility

3M Hearing Protection products are compatible with other 3M products:

Eyewear (page 26-31)



Respiratory Protection (page 8-22)



* Source: www.hse.gov.uk

Ear Plugs

3M provides a wide selection of ear plugs which includes disposable, reusable and banded versions designed to combine comfort with effective protection.

3M™ 1310 Banded Ear Plugs

● **Comfortable**

Soft round shape foam ear plugs for reduced pressure and a comfortable seal.

● **Patented flexible band**

For easy manipulation and constant low pressure in the ear.

Economical

Easy to replace foam plug tips (3M™ 1311).

Convenient

Designed to fit behind the head or under the chin with minimal contact with clothing.

Effective

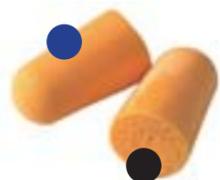
SNR of 26dB*

Compatibility

Designed to be compatible with other PPE



3M™ 1310
Banded Ear Plugs



3M™ 01100 Disposable Ear Plugs

● **Comfortable**

Soft hypoallergenic foam material provides comfortable pressure inside the ear and high attenuation.

● **Durable**

Special formulation material makes these plugs less prone to soak up water in humid environments to maintain performance.

Smooth surface helps prevent picking up unwanted dirt for a more hygienic fit.

Effective

SNR of 37dB*

Compatibility

Designed to be compatible with other PPE

*Attenuation values at 8 octaves band frequencies available.

Other 3M™ Ear Plugs



3M™ 1261
Reusable Ear Plugs
Storage case included
SNR 25dB



3M™ 1100DP
Ear Plug Dispenser
3M™ 1100R low cost
refill bags available

Ear Muffs

Designed for moderate to high noise attenuation this versatile range offers economical, lightweight yet durable ear muffs with helmet mounted options. All offer superb levels of comfort.

3M™ 1440 High Comfort ear muffs

● **Comfortable**

Strong, wide headband provides low pressure and secure fit.

2-point mounting headband provides low, even pressure and easy handling.

● **Durable**

Contoured, foam filled cushions provide better slip resistance, reliable seal and remain soft over time.

Slim, tough cups offer high impact resistance.

Effective

SNR of 27dB*

Compatibility

Designed to be compatible with other PPE

*Attenuation values at 8 octaves band frequencies available.



3M™ 1440
High Comfort Ear Muffs

Other 3M™ Ear Muffs



3M™ 1430
Standard Ear Muffs
SNR 23dB



3M™ 1525
Premium Level
Dependent Ear Muffs
SNR 24dB



3M™ 1510
FM-radio Ear Muffs
SNR 24dB

Eye Protection

As a trusted supplier of Respiratory and Hearing Protective Equipment, we understand that achieving a good fit between different pieces of Personal Protective Equipment may sometimes prove difficult.

That's why we decided to extend our existing range of safety solutions to include safety spectacles and goggles. Our aim is to make your eyewear selection easier by offering a selected range of high quality, stylish and comfortable products that are suitable for a variety of hazards and are designed to be worn in conjunction with Respiratory and Hearing Protective Equipment.

Style

With modern and stylish designs, this is eyewear people will want to be seen in and be protected by.

Premium Protection

Premium features as standard – The 3M range of safety spectacles are all of the highest optical class (Class 1) and are supplied with durable Anti-Scratch and Anti-Fog coatings, and UV protection as standard.*

User Comfort

Innovative features make the 3M range of eye protection one of the most comfortable on the market.

Compatibility

Eye protection often needs to be worn in conjunction with other protective equipment. The 3M Eyewear range has been specifically designed to be compatible with 3M™ foldable respirators and 3M™ reusable half masks.

*Except 3M™ 2700 Spectacles.

Support

Plus you can rest assured that the range comes with the high quality, training and technical support that you would expect from 3M.

Chemical Splashes

When handling hazardous chemicals, eye protection should be worn if deemed necessary by your risk assessment. The price of a pair of goggles is well spent versus the cost of a day's labour spent waiting at the Eye Infirmary!

Impact Injury

Particles from grinding, sanding and cleaning can all cause damage to the eye and the sensitive area around it. Take time to ensure your workforce is protecting themselves.

Checklist for choosing suitable eyewear

- Is it CE marked?
- Does it fit with other PPE and respirator?

Classic Line Spectacles

Classic Line Spectacles are lightweight and offer the wearer high levels of comfort together with reliable protection.

● Style

Stylish and modern design, eye protection is more likely to be worn if it looks good.

Premium protection

Optical clarity Class 1: highest class to ensure clear vision during wear for improved operator safety.

Anti-Scratch: features an extremely scratch-resistant coating ensuring improved durability.

Anti-Fog: A special coating which reduces fogging and ensures clearer vision.

UV Protection: reliable protection against specified levels of hazardous UV radiation.

Polycarbonate lenses for impact protection against high speed particles at low energy EN166FT.

End user comfort

Extremely light and comfortable

● Compatibility

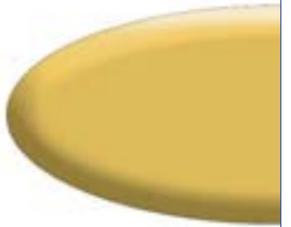
Slim nose bridge and flat temples for improved compatibility with other PPE.

Ideal combination with 3M™ foldable respirators and 3M™ reusable half masks.



3M™ 02720 Classic Line Spectacles Lens

Colour: Clear
Lens Material: Polycarbonate

Lens Colours		
		
<p>Clear Lenses: Clear lenses provide good mechanical protection as well as high UV protection by filtering the harmful UV rays. The lenses comply with EN170.</p>	<p>Smoke Lenses: Smoke lenses comply with EN172 and are sunglare filters. They filter harmful UV rays as well as visible light offering UV and glare protection. They provide good recognition of signal lights. They also provide good mechanical protection.</p>	<p>Yellow Lenses: Yellow lenses provide contrast enhancement and offer UV protection to EN170. They also provide good mechanical protection.</p>

Other 3M™ Classic Line Spectacles	
	<p>3M™ 02721 Classic Line Spectacles Lens Colour: Smoke for additional sun glare protection Lens Material: Polycarbonate</p>
	<p>3M™ 02722 Classic Line Spectacles Lens Colour: Yellow for contrast enhancement requirements Lens Material: Polycarbonate</p>

Comfort Line Spectacles

Comfort Line Spectacles combine a modern design with various adjustment options leading to increased comfort and protection.

Style

Stylish and modern design, eye protection is more likely to be worn if it looks good.

Premium protection

Optical clarity Class 1: highest class to ensure clear vision during wear for improved operator safety.

Anti-Scratch: features an extremely scratch-resistant coating ensuring improved durability.

Anti-Fog: A special coating which reduces fogging and ensures clearer vision.

UV Protection: reliable protection against specified levels of hazardous UV radiation.

Polycarbonate lenses for impact protection against high speed particles of low energy EN166FT.

Yellow coloured lens for suitability in working environments which require enhanced contrast between light levels.

End user comfort

Temple pivots enable the user to adjust the lens angle providing superior comfort, fit and vision clarity.

Soft temple tips: reduce pressure making them extremely comfortable to wear.

Adjustable temple length offers a secure and comfortable fit to suit the individual.

Compatibility

Ideal combination with 3M™ foldable respirators and 3M™ reusable half masks.



3M™ 02742 Comfort Line Spectacles Lens

Colour: Yellow

Lens Material: Polycarbonate

Other 3M™ Comfort Line Spectacles	
	<p>3M™ 02740 Comfort Line Spectacles Lens Colour: Clear Lens Material: Polycarbonate</p>
	<p>3M™ 02741 Comfort Line Spectacles Lens Colour: Smoke for additional sun glare protection Lens Material: Polycarbonate</p>

Selection Guide			
	Polishing	Hand Finishing	Hand Sanding
3M™ Spectacles	✓	✓	✓

Over-Spectacles

The 3M™ 2800 Safety Over-Spectacles are designed to fit over most users' prescription spectacles with minimal interference. They offer an excellent coverage and field of vision, combined with a high level of protection against impacts.

Style

Strong polycarbonate lens with anti-scratch coating.

Adjustable length temples (4 positions) for comfort and optimal fit.

Inclinable lens for easy adjustment and maximum comfort.

Soft low profile temples for comfort and minimum interaction with prescription spectacles.



3M™ 2800 Over-Spectacles

Colour: Clear

Lens Material: Polycarbonate

Premium Line Goggles

With superior comfort, field of view and a modern ergonomic design, these goggles offer a high level of protection, making them ideal for use in extreme conditions against hazards such as particles, liquid droplets, gases and dust.

Style

Wraparound design gives increased wearer confidence.

● Premium protection

Optical clarity Class 1: highest class to ensure clear vision during wear for improved operator safety.

Sealed design helps provide protection against liquids, dusts, gases and vapours.

Broad, fully adjustable headband for optimum fit and reliable protection.

Anti-Scratch: features an extremely scratch-resistant coating ensuring improved durability (02790 only).

Anti-Fog: A special coating which reduces fogging and ensures clearer vision.

UV Protection: reliable protection against specified levels of hazardous UV radiation.

● End user comfort

Soft face piece and strap material provides wearer comfort.

Shape and design help provide a comfortable and secure fit.

Wraparound design gives an exceptional field of vision.

Can be worn over most prescription spectacles.

Compatibility

Ideal combination with 3M™ foldable respirators and 3M™ reusable half masks.



3M™ 02790A Premium Line Goggles (Acetate)

Acetate lens for excellent chemical resistance and protection against high speed particles of low energy EN166FT.

3M™ 02790 Premium Line Goggles (Polycarbonate)

Polycarbonate lens protects against high speed particles of medium energy EN166BT and molten metal.

Selection Guide				
Product Number	Sanding	Grinding	Paint Spraying	Chemical Handling
2790	✓	✓		
2790A			✓	✓

*Tests show that the combinations are suitable for many wearers. However, compatibility with other personal protective equipment is subject to a number of variables and the user must make an appropriate selection depending on individual requirements.

Selection Chart

Eyewear	Spectacles			Goggles	
	Classic		Comfort	Premium	
	2800	02720 / 02721 / 02722	02740 / 02741 / 02741	02790 / 02790A	
Technical Features					
Anti-Scratch (AS)	✓	✓	✓	✓	
Anti-Fog (AF)		✓	✓	✓	✓
Ultra-violet (UV)	✓	✓	✓	✓	✓
CE Marking	✓	✓	✓	✓	✓
EN 166:2001	✓	✓	✓	✓	✓
Impact Resistance	FT	FT	FT	BT	FT
Resistance against liquid droplets, gas and dust	N/A	N/A	N/A	✓	✓
Resistance against molten metal	N/A	N/A	N/A	✓	N/A
Lens material	PC	PC	PC	PC	Acetate
Optical Class	1	1	1	1	1
Lenses shades/colours clear (C) = 3-1.2 smoke (S) = 5-2.5 (2741=5-2.1) yellow (Y) = 2-1.2	C C C	C/S/Y C/S/Y C/S/Y	C/S/Y C/S/Y C/S/Y	C C C	C C C
Product Features					
Adjustable temple length	4 Positions		4 Positions		
Temple inclination	✓		✓		
Soft temple tips	✓		✓		
Can be worn over a wide range of prescription spectacles	✓			✓	✓
Broad and adjustable head bands				✓	✓
Weight		24g	28g	112g	98g
Frame Colours	Blue arms	Blue arms	Blue arms, Red pivots	Light Blue Frame and Grey Band	
Applications					
These products can be used for a wide variety of applications. Typical examples include:	Visitors use with prescription spectacles	General Assembly Work Polishing, Hand Finishing and Sanding		Metal working and Grinding	Chemical handling and Paint spraying

*Tests show that the combinations are suitable for many wearers. However, compatibility with other personal protective equipment is subject to a number of variables and the user must make an appropriate selection depending on individual requirements.

Sorbents

3M™ Sorbents can be used in a wide variety of applications ranging from simple maintenance to emergency spill clean-up. Sorbents help ensure your workplace is kept clean and safe and reduce damage to the environment.

The benefits of 3M maintenance sorbents:

- Promotes a cleaner, safer working environment.
- Very easy to use and to retrieve.
- Reduces the risk of contamination of finished products.
- Reduces the risk of damage to valuable machinery.

3M™ M-F2001 Multi Format Sorbent

Convenient

All your sorbent needs in one box. Incorporating 3M's high performance sorbent technology, this versatile product is 4 formats rolled into one.

Used closed, the multi-format acts as a boom; unfold once and it's a pillow or open it right out to use as a pad or sheet.

Supplied in a convenient dispenser pack, the sorbent is perforated at 40cm intervals – simply tear off the amount required.

Effective

3M™ Maintenance Sorbent is highly absorbent (up to 25 times its own weight), absorbing most fluids very quickly and they are long lasting. Rapid deployment.

3M™ Disposable Spill Kit

A new and innovative way of dealing with everyday small quickly and easily. Everything you need in one kit!

Unique design allows safer clean up - less risk of injury.

Specially designed brush means no need to handle glass and the dustpan kit seals reducing exposure to broken glass.

Absorbs up to 1.5 Litres.



Dimensions 12cm x 15.2m, Case absorbency 119 Litres



Selection Guide							
Product	Alcohols, esters, halocarbons, hydrocarbons and silicones	Crankcase Oils (Oils: natural, synthetic)	Solvents (Turpentine, Toluene, Xylene, Paraffin)	Cutting Oils/ Forming Fluids (Oils: mineral, emulsified)	Hydraulic Fluids (Hydraulic Oils, Water, Oil/Water emulsions)	Lubricants (Oils, Water, Silicone Oils)	Coolants/Heat Transfer Fluids (Water, Alcohol, Oils, Glycols)
M-F200 1 Multi Format	✓	✓	✓	✓	✓	✓	✓
Disposable Spill Kit	✓	✓	✓	✓	✓	✓	✓

Paintshop Coveralls

3M™ 50198 Paintshop Coveralls offer breathable comfort and protection you can rely on. With the highest level of construction quality, the range provides peace of mind for effective use and protection against most industrial hazards.

3M™ 50198 Paintshop Coverall Type 5/6 features

- Elasticated Hood, Waist and Ankles for convenient safe wear and freedom of movement

Two-way zip for extra convenience and protection from contaminants

- Reinforced seams for increased robustness
- Knitted cuffs for increased wearer comfort

Laminated microporous material

Offering excellent robustness and lint free properties

- Breathable back panel

For improved air circulation and reduced heat stress

Excellent protection

Against hazardous dusts and liquid chemical splashes

Colour

White

Anti-static

100% Silicone and Latex free

Sizes: from M to XXL

Symbol	Symbol
	Chemical Protection Category III EN 340: Protective clothing EN 368: Chemical penetration EN 369: Chemical permeation
	prEN 13034: 1997: Limited protective performance Type 6: Against liquid chemicals (splashproof)
	prEN 13982-1: 2000: Limited protective performance Type 5: Against hazardous dry particles (dustproof)
	EN 1073-2: 2002 CLASS 1: Protective clothing against radioactive particulate contamination
	EN 1149-1: 1995: Protective clothing Electrostatic properties



Selection Guide					
Product Number	2-Pack Paint Spraying	Polishing and Hand Finishing	Sanding and Grinding	Coatings, chemical handling, adhesives and sealers	Paint rectification
50198	✓	✓	✓	✓	✓

Non-Slip Surfacing

3M™ Safety-Walk™ non-slip surfacing offers a full range of floor level safety products to minimise risk in many industrial applications. Our antislip surfaces reduce slip, trip and fall accident rates helping to keep down compensation claims and insurance premiums.

3M™ Safety-Walk™ Anti Slip Tapes

General Purpose Grade

Abrasive particles bonded by a tough, durable polymer to a dimensionally stable plastic film to provide an effective antislip surface in most shoe traffic applications.

Coarse Grade

Large abrasive particles bonded by a tough, durable polymer to a dimensionally stable plastic film to provide an effective antislip surface in most shoe traffic applications.

Conformable Grade

Abrasive particles bonded by a tough, durable polymer to an aluminum foil to conform to irregular surfaces.

Available sizes for all grades:

50mm x 18.3m

102mm x 18.3m

3M™ Safety-Walk™ Cushion Matting 3270E

Description

Flat topped vinyl anti-fatigue matting providing cushioned support evenly distributed across the bottom of the shoe, reducing leg and back fatigue.

Textured top helps improve traction and allows debris and liquid to stay on top of the mat for easy clean-up.

Applications

Use as a fatigue-resistant mat in dry areas where workers stand or walk.

Factory assembly, production areas, or any other dry work area with limited chemical exposure.

Sizes and Colours:

0.9 x 1.5m,

0.9 x 3.0m

0.9 x 6.0m

Available in black



Product Glossary

Respiratory

Dusts

Produced when solid materials are broken down into fine particles. The longer dust remains in the air, the easier it is to inhale.

Mists

Tiny liquid droplets formed by atomisation and condensation processes such as spraying. Often a combination of several hazardous ingredients.

Metal Fume

Occurs when metals are vaporised under high heat.

The vapour cools quickly and condenses into very fine particles that float in the air.

APF - Assigned Protection Factor

As detailed in HSG53, the level of respiratory protection that can realistically be achieved in the workplace by 95% of adequately trained and supervised wearers.

NPF - Nominal Protection Factor

The theoretical protection level of a respirator based on laboratory measured performance data.

WEL

Workplace Exposure Limit.

FFP

Filtering Face Piece.

CE Marked

Meets the requirements of EC Directive 89/686.

Filter Codes

P Particulates e.g. dusts, mists, metal fume

A Organic gases/vapours above 65°C

Hearing

dB Decibel

Unit of sound/ noise measurement.

dB(A)

Decibel scale weighted to reflect the performance of human hearing.

Attenuation

Effective protection level.

SNR (Single Number Rating)

The average level of protection a device can offer across the frequency level between 63Hz and 8000Hz.



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