

3M™ 8512, 8514 Welding Respirators

Technical Data Sheet

Description

The 3M™ 8512 and 8514 Welding Respirators provide lightweight, effective, comfortable and hygienic respiratory protection against dust particles, non-volatile liquid particles and metal fumes whilst resisting clogging for extended use against welding fumes.

The 3M™ 8514 respirator additionally provides respiratory protection against Ozone as well as offering relief from nuisance levels* of organic vapours.

- Tested and Certified to AS/NZS 1716:2003
- Flame retardant, anti-clog, outer surface minimises the detrimental effects associated with welding splatter.
- The carbon layer in 3M™ 8514 respirators provides protection against Ozone gas (10x Exposure Standard (ES)) and nuisance levels of organic vapours (below ES).
- 4 point adjustable braided headbands help achieve a more secure feel and provide comfort to face, head and neck
- 3M™ Advanced Electret Filter Material gives effective filtration with low breathing resistance for consistent high quality performance
- 3M™ Cool Flow™ exhalation valve offers improved comfort in hot humid environments and/or where work is hard and physical.
- Compatible with 3M™ Speedglas™ Welding Headtops.

* Nuisance levels are those levels below the Exposure Standard

Materials

The following materials are used in the production of the 8512 and 8514 Welding Respirators:

Straps	Cotton / Polyisoprene / Polypropylene
Nose Foam	PVC Foam
Nose Clip	Aluminium
Filter	Polyester / Polypropylene / Carbon
Valve	Polypropylene
Valve Diaphragm	Polyisoprene

This respirator does not contain components made from natural rubber latex.

Maximum mass of products = 18g



Standards

These products meet the requirements of Australian / New Zealand Standard AS/NZS 1716:2003 for Respiratory protective devices. They should be used to protect the wearer from solid and nonvolatile liquid particles only.

Particulate Filter Respirators are classified by filtering efficiency and maximum total inward leakage performance (P1 & P2), also by inhalation resistance.

P1 filters are intended for use against mechanically generated particulates such as those generated from sanding, grinding, drilling, sweeping etc.

P2 filters are intended for use against both mechanically and thermally generated particulates e.g. welding, brazing etc. P2 filters may also help reduce breathing in pathogenic biological airborne particulates such as influenza virus.

Approvals

These respirators have been produced to comply with the requirements of the Australian /New Zealand Standard AS/ NZS 1716:2003 under an agreed production certification scheme operated during manufacture in accordance with the SAI Global StandardsMark programme.

Applications

These respirators are suitable for use in concentrations of solid and non-volatile liquid particles up to the following limits:



Model	AS/NZS 1716:2012 Classification	Exhalation Valve	Protection Factor x ES	Gas & Vapour
8512	P2	Valved	10	
8514	P2	Valved	10	Ozone (10x ES) Nuisance odours (< ES)

ES = Exposure Standard

Respiratory protection is only effective if it is correctly selected, fitted and worn throughout the time when the wearer is exposed to hazards.

Storage and Transportation

The 3M™ 8512 and 8514 Welding Respirators have a shelf life of 3 years. End of shelf life is marked on the product packaging.

Before initial use, always check that the product is within the stated shelf life (use by date). Product should be stored in clean, dry conditions within the temperature range: – 20°C to + 25°C with a maximum relative humidity of <80%. When storing or transporting this product use original packaging provided.

Disposal

Contaminated products should be disposed as hazardous waste in accordance with local regulations.

Cleaning

The 3M™ 8512 and 8514 Welding Respirators are designed for single shift use only.

DO NOT immerse product in water, detergent, cleaning fluids etc.

It is recommended that wearers be fit tested in accordance with AS/NZS 1715:2009 Standard. For information regarding fit testing procedures, please contact 3M.

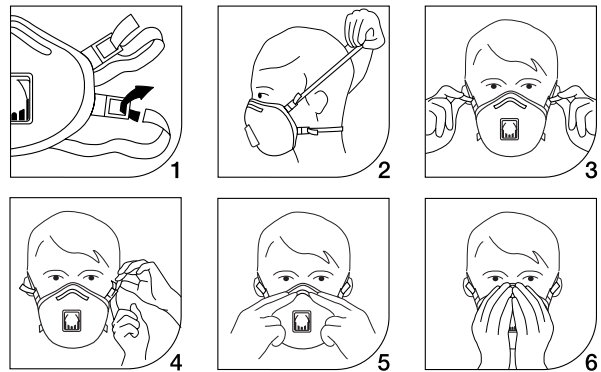
Fitting Instructions

Must be followed each time the respirator is worn. Before fitting device, ensure hands are clean.

See Figure 1.

1. Cup respirator in one hand with nosepiece at fingertips, allow headbands to hang freely below hand.
2. Hold respirator under chin, with nosepiece up.
3. Locate the upper strap across the crown of the head and the lower strap below the ears.
4. Straps must not be twisted.
5. Using both hands, mould noseclip to the shape of the nose to ensure a close fit and good seal. Pinching the noseclip using only one hand may result in less effective respirator performance.
6. The seal of the respirator on the face should be fit-checked before entering the workplace.

Figure 1



Fit Check

1. Cover the front of the respirator with both hands being careful not to disturb the fit of the respirator.
2. (a) UNVALVED respirator - EXHALE sharply;
(b) VALVED respirator - INHALE sharply.
3. If air leaks around the nose, re-adjust the nose clip to eliminate leakage. Repeat the above fit check.
4. If air leaks at the respirator edges, work the straps back along the sides of the head to eliminate leakage. Repeat the above fit check.

If you CANNOT achieve a proper fit DO NOT enter the hazardous area. See your supervisor.

It is recommended that wearers be fit tested in accordance with AS/NZS 1715 Standard. For information regarding fit testing procedures, please contact 3M.

Product Range



Warnings and Use Limitations

Always be sure that the complete product is:

- Suitable for the application;
 - Fitted correctly;
 - Worn during all periods of exposure;
 - Replaced when necessary.
- Proper selection, training, use and appropriate maintenance are essential in order for the product to help protect the wearer from certain airborne contaminants.
 - Failure to follow all instructions on the use of these respiratory protection products and/or failure to properly wear the complete product during all periods of exposure may adversely affect the wearer's health, lead to severe or life threatening illness or permanent disability.
 - For suitability and proper use follow local regulations, refer to all information supplied or contact an occupational hygienist, safety professional or 3M representative on the Tech Assist Helpline 3M Australia 1800 024 464, 3M New Zealand 0800 364 357.
 - Before use, the wearer must be trained in use of the complete product in accordance with applicable Health and Safety standards/guidance.
 - These products do not contain components made from natural rubber latex.
 - These products do not protect against gases/vapours except against Ozone in concentrations up to 10 x ES and relief from nuisance levels of Organic Vapours (i.e. levels below ES) (3M 8514 only). See packaging for specific use conditions.
 - Do not use in atmospheres containing less than 19.5% oxygen. (3M definition. Individual countries may apply their own limits on oxygen deficiency. Seek advice if in doubt).
 - Do not use for respiratory protection against atmospheric contaminants/concentrations which are unknown or immediately dangerous to life and health (IDLH).

Do not use with beards or other facial hair that may inhibit contact between the face and the product thus preventing a good seal.

- Leave the contaminated area immediately if:
 - a) Breathing becomes difficult.
 - b) Dizziness or other distress occurs.
- For single shift use or re-usable devices: Discard and replace the respirator if it becomes damaged, breathing resistance becomes excessive, Ozone breakthrough occurs or at the end of the shift*
- Never alter, modify or repair this device.
- In case of intended use in explosive atmospheres, contact 3M.

Warning: Respirators must not be used until your employer has determined whether usage will be in accordance with manufacturer's instructions. The wearer must be trained in the proper fitting and use of this product. Failure to follow all instructions and warnings on the use of this product and/or failure to wear this respirator during all times of exposure can reduce respirator effectiveness and result in illness or death. All respirators should be used in accordance with Australian standard AS/NZS 1715. It is recommended that fit testing be conducted before assigning a respirator to an individual. If you cannot achieve a proper fit, do not enter contaminated areas. Do not use with beards or other facial hair or conditions that prevent a good seal between the face and the sealing surface of the respirator.

Important Notice: 3M does not accept liability of any kind, be it direct or consequential (including, but not limited to, loss of profits, business and/or goodwill) arising from reliance upon any information herein provided by 3M. The user is responsible for determining the suitability of the products for their intended use. Nothing in this statement will be deemed to exclude or restrict 3M's liability for death or personal injury arising from its negligence.



3M Australia Pty Ltd
Personal Safety Division
Bldg A, 1 Rivett Road
North Ryde NSW 2113

TechAssist Helpline 1800 024 464
Customer Service 1300 363 565
Email techassist@mmm.com
Web www.3M.com.au/ppesafety

3M New Zealand Ltd
Personal Safety Division
94 Apollo Drive, Rosedale
Auckland 0632

TechAssist Helpline 0800 364 357
Customer Service 0800 252 627
Email 3mzntb@mmm.com
Web www.3M.com.nz/ppesafety

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