

RESPIRATOR SELECTION TOOL

A UK based tool has been developed to help workplaces find the right respirator for their employees and help manage their respiratory protection programme. The tool was developed by the Health and Safety Executive, NHS Health Scotland and Healthy Working Lives (HWL). This tool can be used by New Zealand workplaces to assist in choosing and managing the correct respiratory protection, however there are some important points listed below that you need to read and consider before using this tool for your workplace.

Before using this tool in a New Zealand workplace, you must be aware of the following:

- > **Qualifiers.** Please be aware of the 'qualifiers' given on the Step 1 of the tool.
- > **New Zealand Standard AS/NZS 1715:2009 Selection, use and maintenance of respiratory protective equipment.** The UK respirator selector tool is based on the Health and Safety Executive's RPE guidance HSG53. In the UK, the RPE standards differ from the New Zealand Standard (AS/NZS 1715:2009) in terms of the protection level allocated to different types of respirators. As such using this tool does not necessarily meet the requirements of the selection of RPE as per AS/NZS 1715. However the UK protection levels are equal to, or are more conservative (tougher) than the New Zealand standards for more than 90% of the respirator types listed in AS/NZS 1715. The exceptions are given in Table 1 below. If your assessment recommends one of the respirator types listed in Table 1, please seek expert advice to determine if the recommendation complies with AS/NZS 1715.
- > **Fit testing** should be carried out when the worker is first provided with a close fitting respirator and at least annually, or wherever there is a change in the wearers facial characteristics or other features which may affect the facial seal (reference AS/NZS 1715:2009). Search the Yellow Pages or internet for a consultant that does respirator fit testing, or ask your RPE manufacturer, or supplier.
- > **HSNO classifications and H-numbers.** This tool uses H-numbers to identify the health risks of the substances concerned. On New Zealand safety data sheets the H-number is not always present, though H-statements (a phrase that describes the health risk) must be present. If your SDS doesn't show H-numbers, use Table 2 below to convert from either the HSNO classifications to H-numbers, or the H-statements to H-numbers. You may have multiple H-numbers for your substance. If the substance has no HSNO Classification or the H-numbers for your substance aren't listed, select '*none of the above H-statements apply*' in Step 6 of the tool.
- > **Confined spaces.** If working in, or entering confined spaces please read the following guidance www.business.govt.nz/worksafe/information-guidance/all-guidance-items/confined-spaces-planning-entry-and-working-safely-in-a-confined-space/confined-p.pdf

- > **HSNO controls.** Toxic, flammable or corrosive substances are subject to HSNO controls. Please see the following for guidance: www.business.govt.nz/worksafe/information-guidance/all-guidance-items/hsno/hsno-guidance-pages/key-hsno-controls
- > **Advice or expert help.** If you are not confident selecting respiratory protection, or using the Selector Tool, seek help from your RPE supplier, RPE manufacturer, or a competent consultant via www.hasanz.org.nz; or search the yellow pages.
- > **Worksafe resources:** Worksafe New Zealand's website provides essential information for RPE selection and use www.business.govt.nz/worksafe/information-guidance/all-guidance-items/respiratory-protection-a-guide-to/RespiratoryProtection.pdf <http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/respiratory-protective-equipment-advice-employees/rpe-advice-for-employees-pdf>
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RESPIRATOR TYPE	UK ASSIGNED PROTECTION FACTOR (REF HSG53)	AS/NZS 1715 REQUIRED MINIMUM PROTECTION FACTOR
Disposable ½ face respirator with P3 filter	20	Not listed
Reusable ½ face respirator with P3 filter for mechanically or thermally generated particulates	20	< 10
Full face piece respirator with P1 filter	4	Not listed
Powered respirator with full face piece and P1 filter for thermally generated particulates	10	Not listed
Powered respirator with hood for gas/vapour	10-40	Not listed
Airline + full suit for mechanically or thermally generated particulates	10-200	Not listed
Airline + full suit for gas/vapour	10-200	100+
Self-contained breathing apparatus positive pressure demand	2000	100+
Positive pressure demand airline with full face piece	2000	100+

Table 1: Respirator comparison - HSG53 (2013) compared with AS/NZS 1715 (2009)

Look on your safety data sheet for the HSNO classifications. Using the table below, write down all the corresponding H numbers for your HSNO classifications. Use the H numbers in the E-tool.

HSNO CLASSIFICATION	EQUIVALENT H NO.	EQUIVALENT H STATEMENT
6.1A oral or 6.1B oral	H300	Fatal if swallowed
6.1C oral	H301	Toxic if swallowed
6.1D oral	H302	Harmful if swallowed
6.1E aspiration hazard	H304	May be fatal if swallowed and enters airways
6.1A dermal	H310	Fatal in contact with skin
6.1B dermal or 6.1C dermal	H311	Toxic in contact with skin
6.1D dermal	H312	Harmful in contact with skin
6.1A inhalation or 6.1B inhalation	H330	Fatal if inhaled
6.1C inhalation	H331	Toxic if inhaled
6.1D inhalation	H332	Harmful if inhaled
6.1E	H335	May cause respiratory irritation
6.3A or 6.3B	H315	Causes skin irritation
6.4A	H319	Causes serious eye irritation
6.5A	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
6.5B	H317	May cause an allergic skin reaction
6.6A	H340	May cause genetic defects
6.6B	H341	Suspected of causing genetic defects
6.7A	H350	May cause cancer
6.7B	H351	Suspected of causing cancer
6.8A	H360	May damage fertility or the unborn child
6.8B	H361	Suspected of damaging fertility or the unborn child
6.8C	H362	May cause harm to breast-fed children
6.9A single exposure	H370	Causes damage to organs
6.9A repeated exposure	H372	Causes damage to organs through prolonged or repeated exposure
6.9B single exposure	H371	May cause damage to organs
6.9B repeated exposure	H373	May cause damage to organs through prolonged or repeated exposure
8.2A or 8.2B or 8.2C	H314	Causes severe burns and eye damage
8.3A	H318	Causes serious eye damage

Table 2: HSNO classification and equivalent H-numbers

The RPE selector tool can be found at: www.healthyworkinglives.com/rpe-selector