

General Respiratory Protection Programme Guidance

News?

What's the

KUALA LUMPUR (Sept 10, 2011): Malaysia has sent a letter to Indonesia expressing concerns after 600 hotspots with high temperature levels were detected via satellite imagery in Sumatra this year. (The Star Online)



Natural Resources and Environment Minister Datuk Seri Douglas Uggah Embas said that the letter was sent on Friday to his Indonesian counterpart, State Minister for Environment, Professor Dr Gusti Muhammad Hatta. September 10, 2011. The Star Online

PETALING JAYA (Sept 11, 2011): Parts of West Malaysia continued to suffer hazy conditions today, while other areas badly affected last week enjoyed clearer skies.

A total of 205 hotspots in Sumatra were identified in satellite images taken by the Asean Specialised Meteorological Centre, an improvement over the 381 last week, while in Borneo 97 hotspots were identified. (The Sun Daily)



Kuala Lumpur covered in haze at noon today. September 11, 2011. TheSun/Zulkifli Eرسال

PETALING JAYA (Sept 14, 2011): According to Department of Environment's website, those areas with the highest API (Air Pollutant Index) for September 13, 2011 are as below:

STATE	AREA	API at 5:00PM
Selangor	Kuala Selangor	99*
Perak	Seri Manjung	95*
Negeri Sembilan	Nilai	94*
Selangor	Petaling Jaya	92*
Selangor	Pelabuhan Kelang	87*
Melaka	Bukit Rambai	86*
Selangor	Shah Alam	86*
Kedah	Alor Setar	85c
Perak	S K Jalan Pegoh, Ipoh	85*
Wilayah Persekutuan	Batu Muda, Kuala Lumpur	85*

API	Status
0-50	Good
51-100	Moderate
101-200	Unhealthy
201-300	Very Unhealthy
>301	Hazardous

* = Small Particles (PM10)
C = Ozone (O3)

General Respiratory Protection Programme Guidance

According to US OSHA Safety & Health Topic on respiratory protection, an estimated 5 million workers are required to wear respirator in 1.3 million workplaces. It is one of the most crucial protection programme in implementing OSHA.

We always stress on using an approved PPE, whether respirator, gloves, shoes, helmet or coverall. Let's have a simple Q&A to have an overview of respiratory protection standards available.

Q1: What's a respirator?

A: A respirator is a device that protects you from inhaling dangerous substances, such as chemical, fume or infectious particles. Respirator is among the most important pieces of protective equipment for working in hazardous environments. Selection of right respirator requires an assessment of all workplace operations processes or environments that might create a respiratory hazard. The airborne hazards identity, concentration and its effects need to be determined before choosing a respirator. This assessment should be done by experienced safety personnel or by an industrial hygienist.

Q2: How does respirator work?

A: Respirators work by either filtering particles from the air, chemically cleaning (purifying) the air, or supplying clean air from an outside source.

Particulate Respirators: Particulate respirators are the simplest, least expensive types available. These respirators only protect against dust, mist and fume. The commonly know N95, P100, P2 & P3 filtering facepiece are the types of particulate respirator often used in healthcare setup to protect against infectious agents. They only clean the air at your local breathing zone. They are usually disposable or respirator with disposable filters, must be replaced when become soiled, damaged or clogged.

Chemical Cartridge (Commonly known as Gas Mask) Respirator: Gas masks filter/clean the local air by chemical absorption, physical adsorption or combi process by the treated charcoal content. This respirator includes a facepiece and a cartridge or canister. Straps secure the facepiece to the head. The cartridge may also have add-on filter to remove particles.

Gas masks are effective only if used with the correct type of cartridge or filter for particular biological or chemical substance. Selecting the proper attachments can be a complicated process. There are cartridges available that protect against more than one hazard, but there is no "all-in-one" cartridge that protects against all substances. Thus, to identify the hazards is a prerequisite condition in selecting the right filters/cartridges.

Powered Air-Purifying Respirator (PAPR): Powered air-purifying respirator use a fan to draw air through the filter to the user. They are always positive air flow, easier to breathe through; however, they need a fully charged battery to work properly. Usually, they would use the same type of filters/canister as other air-purifying respirator at a larger quantity. Due to the air flow is higher than negative pressure respirator.

Self-Contained Breathing Apparatus (SCBA): SCBA uses its own air tank to supply clean air, don't worry of filters. However, they are very heavy (30 pounds or more).

Q3: What are respirators made from?

A: Filtering facepiece (dust masks) are generally made directly from filter material, e.g. Polypropylene. Chemical cartridge/gas mask respirator can be made from a variety of materials, for instance, silicone, neoprene and rubber. Generally, rubber and neoprene are rigid and durable; whereas silicone is usually preferred for its comfort, flexibility and ease in cleaning.

Q4: What optional features are available for respirator?

A: Various features are available to help you customize respirators to suit the specific hazards. For example, nose cup reduces lens fogging with full facepiece respirator, lens cover protects lens from paint and scratches. Contact lenses are discouraged to be used in chemical environment. Spectacle kits are needed when using prescription corrective lenses to maintain a proper fit and still wear prescription lenses.

Q5: What is the color coding for filter and gas cartridges?

A: All cartridges are assigned a color designating the type of contaminant they filter:

Contaminant	Color coding on Cartridge/Canister
Acid Gases	White
Hydrocyanic acid gas	White with ½ inch green stripe completely around the canister near the bottom.
Chlorine gas	White with ½ inch yellow stripe completely around the canister near the bottom.
Organic Vapors	Black
Ammonia gas	Green
Acid gases and ammonia gas	Green with ½ inch white stripe completely around the canister near the bottom.
Carbon monoxide	Blue
Acid gases & organic vapors	Yellow
Hydrocyanic acid gas and chloropicrin vapor	Yellow with ½ inch blue stripe completely around the canister near the bottom.
Acid gases, organic vapors, and ammonia gases	Brown
Radioactive materials, except tritium & noble gases	Purple (magenta)
Pesticides	Organic vapor canister plus a particulate filter
Multi-Contaminant and CBRN agent	Olive
Any particulates - P100	Purple
Any particulates - P95, P99, R95, R99, R100	Orange
Any particulates free of oil -N95, N99, or N100	Teal

There'll be more Q&A on respiratory protection in our following newsletters, stay tuned!

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- Calling 603-6157 8822 or
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2. <http://www.thesundaily.my/news/139576>
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