乾淨及空氣清新的車廂，令司機和乘客健康舒適、行程愉快。這小冊子向你提供一些如何提高車廂內空氣質素的實用建議。

在車廂內有哪些常見的空氣污染物會引致不良的空氣質素？

香港現時大部分的車輛都裝有空調。如果車廂的通風量不足以將污染物稀釋，或沒有把車輛的空調系統做好適當的維修保養，車廂內的空氣污染物就可能會積聚而達到較高的水平。常見的空氣污染物包括：一氧化碳(CO)、氮氧化物(NOx) 、揮發性有機化合物(VOCs)、煙(或二手煙)、塵埃和霉菌。

有哪些原因會影響車廂內的空氣質素？

- 車輛所排放的廢氣含有一氧化碳、氮氧化物、揮發性有機化合物和塵埃等。當這些廢氣滲入車廂時，可能會導致乘客感到不適甚至作嘔。若開著通風口，並在塞車或過隧道時，情況會更加惡劣。
- 車廂內使用的某些物料和配件，如新的人造物料座椅或地毯等配件、空氣清新劑、座椅潔亮劑、粘合劑等，會散發出揮發性有機化合物和其他空氣污染物。這都可能會引起頭痛，或令眼、鼻、喉嚨感到不適。
- 如果司機或乘客吸煙，不僅會大大增加揮發性有機化合物、一氧化碳和塵埃之類的空氣污染物水平，它所散發出的氣味也可能會長期停留在車廂內。
- 其他問題包括乘客攜帶上車的物品和人體所散發的氣味。
- 不潔的空調隔塵網和潮濕的地毯，可能為霉菌提供滋生温床。這些霉菌會使人產生過敏反應。
- 車廂緊閉導致通風不足會令車廂內空氣污染物，例如二氧化碳等積聚。

如何知道車廂內有沒有空氣質素問題？

若出現下列情況，車廂內的空氣質素可能存在問題：

- 上車後感到眼、鼻、喉嚨不適；
- 有揮發性有機化合物、煙或潮濕及發霉的氣味；
- 在車廂內停留一段時間後感到疲倦、頭暈或頭痛。

如何改善車廂內的空氣質素？

下列各項措施有助改善車廂內的空氣質素：

- 打開通風口或車窗引進新鮮空氣，但謹記在過隧道或塞車時把它們關上。
- 盡可能避免緊貼排出大量廢氣的車輛。
- 避免在車廂內吸煙。
- 選擇在較為不擠塞的地區或行車線行駛。
- 保持車廂內乾爽清潔。
- 保持引擎調較於最佳狀況。
- 在可行的環境下，將新車的車門和車窗打開以進行吹風，以稀釋新裝置所散發的揮發性有機化合物。
- 儘量避免使用含化學成份的空氣清新劑，如果確實需要，必須參閱生產商的使用指南。
- 儘量避免使用含揮發性有機化合物的化學劑清潔車廂。
- 在使用殺蟲劑之後打開車輛的門窗讓車廂充分吹風。
- 在上車之前，將帶有異味的物品用密封袋或箱子裝好。
- 移除發霉的地毯。如可能，用稀釋的漂白水清潔其表面。
- 停車熄匙不但有助減低廢氣滲入車廂，還可以防止污染車外環境。
- 在車房維修車輛時，要求提供以下服務：
  a)清潔並更換隔塵網。
  b)檢查通風管道有沒有漏氣情況，以避免廢氣滲入車廂內。

如想得到更多資料，請聯絡：

室內空氣質素資訊中心
香港九龍塘達之路７８號生產力大樓一樓
電話：２７８８　６１７７
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Indoor Air Quality Information Centre
室內空氣質素資訊中心
環境保護署
ENVIRONMENTAL PROTECTION DEPARTMENT

車廂內的空氣質素
In-Vehicle Air Quality

A clean and pleasant vehicle compartment with good air quality can make your journey more enjoyable as it has a bearing on the health and comfort of the drivers and passengers. This leaflet gives you some tips on how to improve in-vehicle air quality.

What are the common air pollutants in vehicles causing poor air quality?

Nowadays, most of the vehicles in Hong Kong are air-conditioned. Air pollutants may accumulate to high levels in vehicle compartments if there is no adequate ventilation to dilute the pollutants, or when the air-conditioning systems of the vehicles are not properly maintained. Common air pollutants found inside vehicle compartments include carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOCs), tobacco smoke (or second-hand smoke), dust particles, and mould.

What are the possible causes of poor air quality inside vehicles?

- Vehicle exhaust containing CO, NOx, VOCs, and dust particles etc. from polluted roadside infiltrated into the vehicle compartment may make passengers feel unpleasant, or sometimes sick. The situation may worsen when the vehicles are stuck in the traffic jam, or passing through the vehicle tunnel, with the fresh air vents opened.
- Some of the materials / accessories used in the vehicle compartments emit VOCs and other pollutants, for instance, new fittings such as fabric / plastic seats or carpets, air fresheners, seat polish, adhesives etc. This may cause headache, or irritation to eyes, noses and throats.
- If the drivers or passengers smoke, cigarette smoke will not only add substantially to the level of air pollutants, such as VOCs, CO, and dust particles, the stinking odour may also linger inside the vehicle for a long period.
- Other odour problems include the odourous goods brought on board or the body odour from the passengers.
- Dirty filters inside air-conditioners and damp carpets may provide breeding ground for mould which may trigger allergic reactions in some sensitive individuals.
- Inadequate ventilation due to tightly closed windows will lead to an elevated level of carbon dioxide.

How do I know if there are in-vehicle air quality problems?

The following signs indicate there may be in-vehicle air quality problems:

- Irritation of eyes, nose and throat after getting into the vehicles;
- Smell of VOCs, tobacco smoke, or damp and mouldy odour;
- Feeling sleepy, dizzy, or headache after staying in vehicle for a while.

What are the tips to improve in-vehicle air quality?

The following are some useful tips to help improve in-vehicle air quality:

- Open the fresh air vents or window to introduce fresh air to the compartment but remember to close them when passing through the tunnels or traversing congested areas.
- Avoid closely following smoky vehicles wherever practicable.
- Do not smoke inside a vehicle.
- Drive in less congested areas or less congested lanes.
- Keep your vehicle compartments clean and dry.
- Keep your vehicle well tuned.
- For new vehicles, air out compartments to dilute VOCs from new fittings by opening the doors / window of the vehicles wherever practicable.
- Avoid using chemical based air fresheners as far as possible, and if really needed, observe manufacturers' guidelines and recommendations.
- Avoid using chemical agents with VOCs for cleaning of the compartment.
- Adequately ventilate the vehicle compartments.
- Pack the odorous goods in airtight bag / container before taking them into the vehicle.
- Remove and discard mouldy carpets. If possible, wipe the surfaces with diluted bleach solution.
- Switch off engine while waiting to help minimize permeation of exhaust gas into the compartment. This will also reduce pollution to the outdoor environment.
- When servicing your vehicles in garage, request also the following service:
  a) Clean and replace air filters.
  b) Check any leakage of ducting and piping as exhaust gas will permeate into the vehicle compartment if leakage of ducting or piping occurs.

For more information, please contact:

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