Eliminate burns and scalds due hot coolant eruption

The radiator cap plays an important role in raising the boiling point of the coolant. The boiling point of a coolant increases 1.7 degrees C for every pound of pressure created by the radiator cap. A common 15 psi cap will have water boil at 125 degrees C.

The consequence of removing the radiator cap is the coolant returns to its boiling point at atmospheric pressure. So water now boils at 100 degrees C rather than the 125 degrees C with the radiator cap. If the radiator cap is removed while the engine is still hot, the system will depressurize rapidly and the boiling point of the coolant will fall. If the engine temperature is higher than the boiling point of the coolant (at atmospheric pressure) the coolant will instantly boil, creating an eruption of water and steam.

This rapid generation of boiling coolant and steam is released at high pressure, usually resulting in the radiator cap being pushed several meters into the air. Any driver or operator standing infront or over the radiator will be sprayed by the boiling hot coolant and seriously injured.

Australian employers report a high number of work related injuries caused by hot coolant each year, during routine and unscheduled maintenance.

Vapour pressure within a cooling system caused by water evaporating also puts strain on the radiator and hoses. With cooling system components under constant pressure, the likelihood of injury caused by a ruptured hose or radiator increases. When coolant is released it is sprayed at high pressure scalding whatever or whoever is in its way.

Evans Cooling Systems have developed an engine coolant that contains no water and has a boiling point of 190 degrees C at atmospheric pressure. If installed correctly, Evans Coolants allows you to remove the radiator cap while the engine is hot without the risk of boiling over. When the radiator cap is removed, the boiling point with fall only as far as 190 degrees C, still high enough to handle the operating temperature of the engine.

In the event that a driver/operator removes the radiator cap while the engine is still hot, injury will be avoided. It is important to note that the radiator cap and cooling system components will still be very hot to touch.

Vapour pressure is no longer formed as Evans Coolants do not evaporate. Cooling system components operate under no vapour pressure extending component and hose life and reducing the risk of serious injury.

About Evans Cooling Systems Australasia:

Evans Cooling Systems Australasia, based in Melbourne, Victoria, continually seeks to improve engine performance and efficiency, and to contribute to a cleaner and safer environment. For more information on Evans Cooling Systems Australasia and Evans waterless engine coolants please visit www.evanscoolants.com.au, Dealer enquiries welcome, (03) 9318 9811.