



4 Racing Cars

## CAN I USE DRY ICE FOR RACING?

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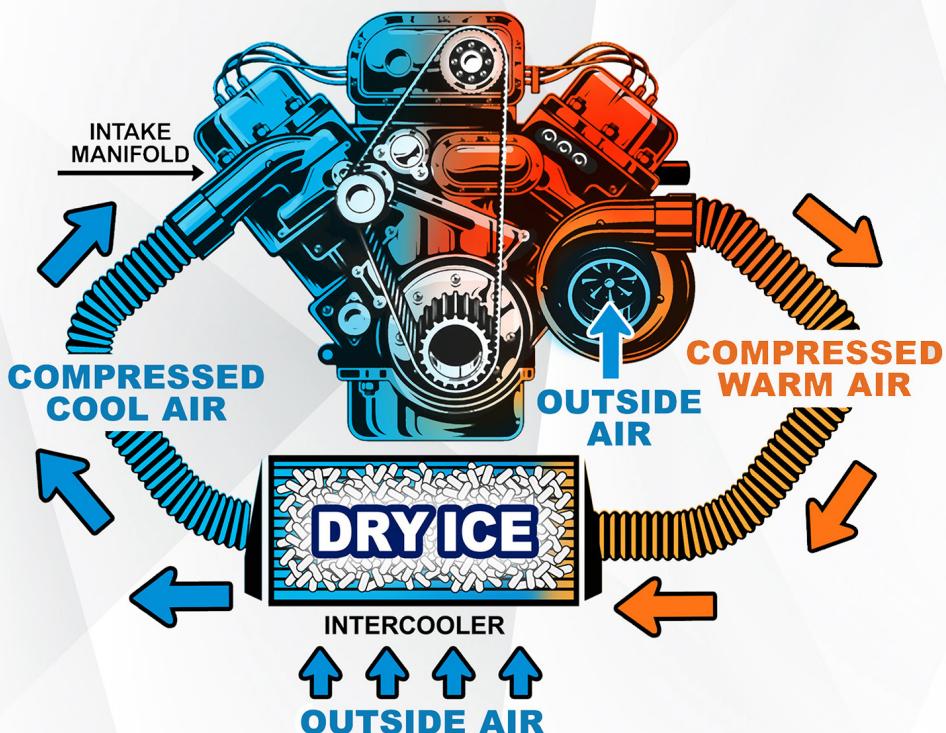
Yes, you can! Dry ice is the perfect solution to all your cooling needs, being both safe and long-lasting. It is ideal for cooling down your vehicle's engine after a sprint race, reducing the air intake temperature on an intercooler, or cooling down fuel. Dry ice makes it possible to gain a competitive advantage on race days, which might just help you take home that sought-after trophy!

## CAN IT COOL DOWN THE AIR INTAKE TEMPERATURE?

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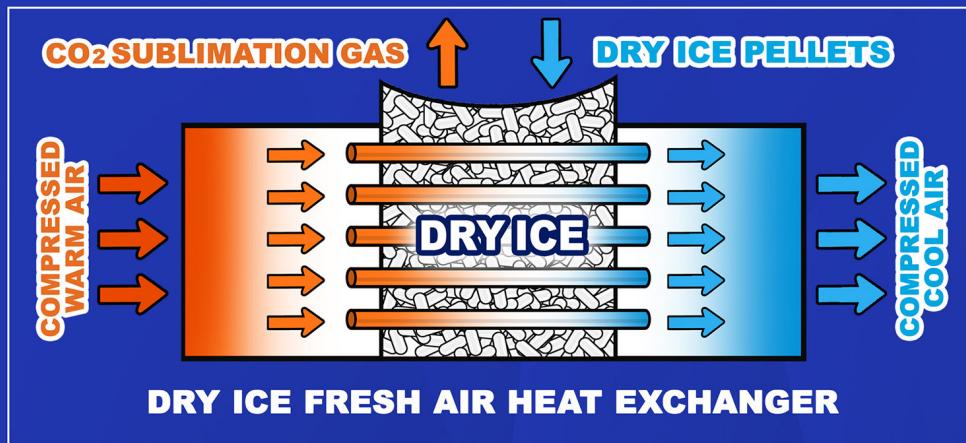
Cold air is denser and holds more oxygen molecules than warmer air. The more oxygen molecules, the better the combustion efficiency. Dry ice can be used with a heat exchanger to cool down the air entering the engine for enhanced performance. The dry ice does not come into contact with the air in the air intake.

As oxygen is a vital component of combustion, care should be taken to prevent the CO<sub>2</sub> vapour from entering the air intake, as it will starve the engine of essential oxygen, resulting in significant power reduction.



## CAN IT COOL DOWN AN ENGINE?

Carefully packaged dry ice pellets can be used on the intercooler and engine after a sprint race to cool down the engine before the next race. The engine temperature reduction between races will reduce the engine wear and assist with prolonged performance. Running a consistently cooler engine throughout the race day will deliver superior results compared to racing with a cool engine that gets progressively hotter



## CAN IT COOL DOWN FUEL?

Fuel can also be cooled using dry ice by means of a heat exchanger. The cold fuel is denser than warmer fuel. This means more fuel is injected into the combustion chamber, thereby increasing power – safe, quick, easy and ready for the checkered flag!

## CAN IT BE USED FOR E-RACING?

As with internal combustion engines, the temperature of electrical battery packs for electric race cars also increases during racing. Dry ice provides the ideal chill factor to reduce the battery pack temperature in as little as 20 minutes.



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## **HOW DO I STORE DRY ICE?**

Use an insulated cooler or polystyrene container. We can supply you with the perfect size polystyrene container, or you can wrap the dry ice in paper or a blanket to extend the life even further if necessary. Remember, do not store dry ice in your freezer at home!

## **WHAT ABOUT SAFETY?**

Dry ice is not for human consumption. Handle it only with protective gloves or mitts. Transport only in complete isolation from the driver. Do not place dry ice in any gas-tight container. It sublimates and expands! Keep dry ice away from children (adult supervision is required).

## **WHAT is DRY ICE?**

It is frozen carbon dioxide (CO<sub>2</sub>), which remains at -79 °C. It is a non-toxic, non-flammable food-grade product, which sublimates from a solid directly to a gas - no liquid or water is left behind. The sublimation creates the cooling effect. The energy value of dry ice is 570 kJ/kg.

## **DELIVERY**

Dry Ice International carries out dry ice deliveries countrywide on a 24-48 hour basis. Dry ice may be ordered on our website and be delivered to your doorstep. Dry ice can also be collected at any of our retail outlets.

## **MORE ABOUT US**

Dry Ice International has been providing the South African industry with innovative dry ice technology and solutions since 1994. We are known for our dedicated national client service, creativity, innovation and team of highly qualified and experienced personnel.

