

# 4 Refrigeration Emergencies

# What is a Cooling Crisis?

Your refrigeration equipment is unable to maintain a specific temperature due to external factors that is beyond your control

# What can cause a Cooling Crisis? \_\_

- Power outages from Eskom or local city counsel for longer than six hours
- Catastrophic failures of refrigeration equipment
- Cooling water failures due to breakdowns or water shortages
- Peak season demand
- Extreme summer temperatures

# Our solution to your Cooling Crisis? \_

Dry Ice can keep perishable products at temperatures below freezing point for extensive periods

# What is dry ice? \_\_\_\_\_

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

# How to use Dry Ice?\_

Place on top of perishable products, as the cold gas is heavier than air and will therefore flow down through the product



# How Much Dry Ice?...do I need







# Time Period: 24 hours (multiply by 2 for extra day)

Note: Perishable product already on temperature

FRIDGE			
VOLUME (litre)	TEMP	KG ICE	
100	+4	1	
200	+4	2	
400	+4	4	
1000 (1m³)	+4	10	

FREEZER			
VOLUME (litre)	TEMP	KG ICE	
100	-20	3	
200	-20	6	
400	-20	10	
1000 (1m³)	-20	20	

Scan our QR code for all cooling info



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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 experiened personnel.



Dry Ice International www.dryice.co.za