

A GUIDE TO HEAT STRESS MANAGEMENT

KEEPING WORKERS SAFE & PRODUCTIVE IN HOT WORKPLACES



FEELING THE HEAT STRESS

Heat stress occurs when the body's natural cooling mechanisms struggle to keep up with excessive heat, leading to a range of adverse health effects. These effects can range from mild discomfort to severe illness, and in some cases, even fatalities. The rising temperatures not only put individual workers at risk but also have broader implications for workplace productivity, occupational safety, and public health.

Heat stress is a prevalent concern that significantly impacts workers where exposure to high temperatures is a common occurrence.

These work environments, such as mining, infrastructure, manufacturing and construction sites, pose unique challenges due to the combination of intense physical activity, the environment, and machinery-generated heat. The effects of heat stress in industrial workplaces can have severe consequences for both the workers' health and overall productivity.

When workers experience heat stress, their performance and productivity can be significantly compromised.

Fatigue, reduced concentration, slower reaction times, and decreased cognitive abilities are common consequences, leading to an increased likelihood of errors, accidents, and injuries. Moreover, absenteeism, decreased

morale, and higher turnover rates may result from the discomfort and health risks associated with working in hot conditions.

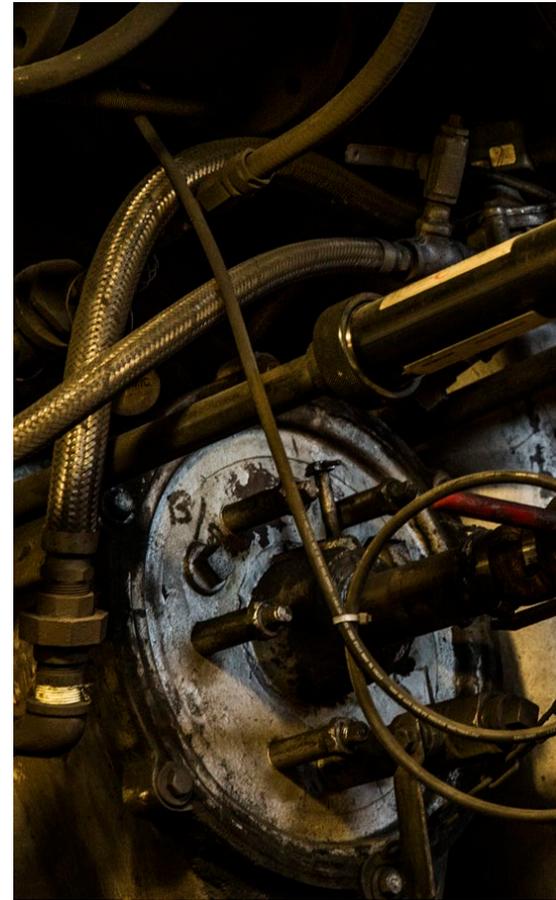
To mitigate the adverse effects of heat stress employers must prioritise the implementation of preventive measures.

These measures may involve implementing work-rest schedules to allow for recovery breaks in cool or shaded areas, and providing access to hydration stations or encouraging regular water breaks. Comprehensive training programs should educate workers and supervisors on recognizing the signs and symptoms of heat stress, promoting a culture of awareness and proactive response.

Personal protective equipment (PPE) tailored for hot environments is another crucial to reduce the risk of heat stress while ensuring worker safety.

Lightweight and breathable clothing, heat-reflective materials, proper heat-resistant and cooling PPE can help alleviate the strain on workers' bodies and enhance their ability to regulate body temperature.

By addressing heat stress workers can safeguard their health and well-being. Moreover, proactive management of heat stress not only enhances workplace safety but also improves productivity and creates a conducive environment that fosters employee satisfaction and retention.



THE FACTS

- Heat stress is when the **temperature and humidity** on a worksite become so high that it becomes dangerous for workers.
- This leads to heat-related illnesses include **dehydration, heat cramps, heat rash, heat exhaustion and heat stroke.**
- Heat stress is caused by a variety of factors, such as **inadequate hydration, repeated physical activity, direct sunlight, temperatures and lack of ventilation.**
- There are **no legal limits** as to what temperatures workers can safely work in. Management have a duty of care to provide a safe environment.



THE STAGES OF HEAT STRESS



DEHYDRATION

Dehydration is a condition caused by the loss of water and electrolytes from the body, it occurs if the body loses fluids.

Thirsty & Dry Mouth

Unusual Sweating

Dry Skin

Unusual Urination

Dizziness & Fatigue



HEAT EXHAUSTION

Heat exhaustion occurs when the body is unable to effectively cool itself due to exposure to extreme heat.

Weakness & Paleness

Heavy Sweating

Tiredness

Headaches & Dizziness

Nausea & Vomiting



HEAT STROKE

Heat stroke is a severe form of heat-related illness that can occur if your body temperature rises to 40°C or higher.

Heat Cramps & Rash

Rapid Breathing & Heartbeat

Seizures

Loss of Consciousness

Cardiac Stress

THE RISKS OF HEAT STRESS



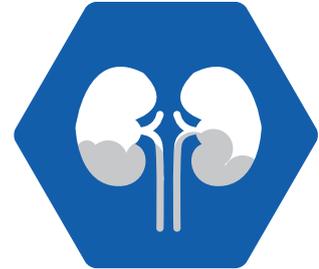
DECLINE IN PRODUCTIVITY

Mild dehydration, loss of 2% body mass or more can cause a decrease in performance of up to 50%. Symptoms create dangerous working environments



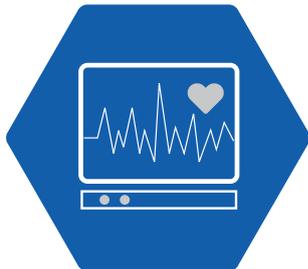
HEAT INJURY OR ILLNESS

Heat injury or illness can take hold if you don't drink enough while you're active and perspiring heavily. Injuries and illnesses range from mild heat cramps to heat exhaustion and life-threatening heatstroke.



URINARY & KIDNEY PROBLEMS

Urinary and kidney issues can arise after repeated or prolonged periods of dehydration. Common issues include urinary tract infections, kidney stones, and kidney failure.



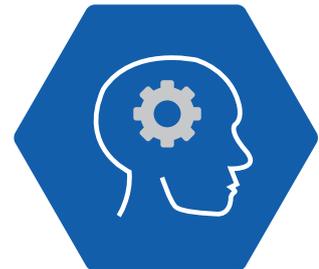
HYPOVOLEMIC SHOCK

One of the most serious and life-threatening complications arising from dehydration is hypovolemic shock, or low blood volume shock. It happens when you lose more than 20% of your blood or fluid supply, which prevents the heart from pumping enough blood to keep the body running. It can lead to organ failure and requires immediate emergency medical attention.



SEIZURE & LOSS OF CONSCIOUSNESS

Electrolytes like potassium and sodium help transmit electrical signals between cells. If they're unbalanced as a result of dehydration, these messages can become mixed up and lead to seizures and, occasionally, loss of consciousness.



DECREASED COGNITIVE & MOTOR SKILLS

Dehydration reduces concentration and reaction time, resulting in decreased cognitive and motor skills. Studies show that it only takes 2 percent dehydration to cause impaired performance in tasks that require attention, motor, and memory skills. This kind of impaired performance is risky for anybody, but it poses a particularly severe risk to workers who operate or work near heavy machinery.

CASE STUDY



A 2015 study out of Loughborough University found that participants committed a **significantly higher number of driving errors** when they were dehydrated. Shockingly, their performance was just as poor as that of people who complete similar tests while at the legal blood alcohol content limit.

THE SIGNS OF DEHYDRATION

DRY MOUTH

DRY SKIN

FEELING PARCHED

DIZZINESS & FATIGUE

FEELING THIRSTY

DARK COLOURED URINE

URINATING & SWEATING
LESS THAN USUAL

SEIZURE & LOSS
OF CONSCIOUSNESS

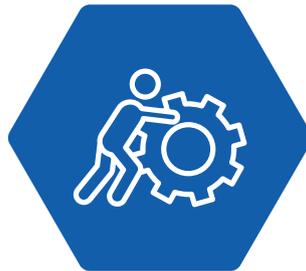


WHEN SHOULD WE BE HYDRATING?



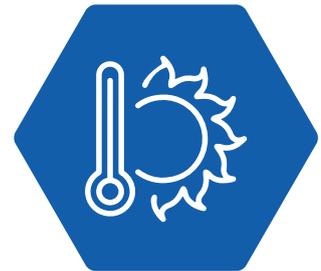
THE DAY

Before work, during work,
after work and before bed



THE WORK

More often during
physical activity



THE HEAT

More often in hot
environments

MONITORING HYDRATION

The urine chart is a tool used to monitor hydration levels by assessing the colour of urine. It serves as a simple indicator of a person's hydration status.



**SEVERELY
DEHYDRATED**



DEHYDRATED



HYDRATED



**OVER
HYDRATED**

ELECTROLYTES EXPLAINED

Your body runs on electricity, from neurons firing in the brain to the heart pumping. Electrolytes conduct electricity in water, facilitating small electric currents for vital processes. They are a family of chemicals, with different types providing positive or negative charges to trigger reactions in the body. Some common ones you may know are:

**Mg²⁺
Magnesium**

**Na⁺
Sodium**

**K⁺
Potassium**

**Ca²⁺
Calcium**



DURING STRENUOUS ACTIVITY THE BODY REQUIRES 180 - 300ML OF ELECTROLYTES EVERY 15 - 20 MINUTES

REMEMBER IT COSTS LESS TO PREVENT A HEAT RELATED WORKPLACE ACCIDENT OR ILLNESS THAN IT DOES TO RECOVER FROM ONE.

HOW TO AVOID HEAT STRESS

As temperatures rise, it's crucial to take precautionary measures to prevent heat stress. Heat stress can pose significant risks to our health and well-being, but with the right strategies in place, we can stay cool and comfortable even in unrelenting conditions, by following these 3 steps.

1 Staying adequately **hydrated** is crucial in preventing heat stress. When we sweat, our bodies lose essential electrolytes, which are crucial for maintaining proper hydration and bodily functions. A well-designed rehydration program should focus not only on replenishing lost fluids but also on replacing electrolytes. Electrolyte-rich beverages or oral rehydration solutions can aid in restoring the

body's electrolyte balance, promoting effective hydration, and reducing the risk of heat-related illnesses.

2 When working or engaging in physical activities in high-temperature environments, **cooling personal protective equipment (PPE)** can provide much-needed relief. These specialised garments incorporate advanced cooling technologies such as evaporative cooling, phase change materials, or airflow systems. These features help regulate body temperature, minimise heat accumulation, and promote effective heat dissipation, thereby reducing the risk of heat stress.

3 Implementing a comprehensive **health and first aid heat**

stress program is vital for creating a safe environment and responding promptly in case of heat-related emergencies. The program should include: Education and Training, Heat Stress Monitoring, Emergency Response and Medical Support

By incorporating cooling personal protective equipment, implementing a rehydration program that replaces lost electrolytes, and adopting a health and first aid heat stress program, individuals and organisations can effectively combat heat stress.

Prevention is key, so stay cool, stay hydrated, and prioritise your well-being when working or spending time in hot environments.



CASE STUDY



Safe Work Australia published a document called '**Managing the risk of working at heat**'. The information will assist your business to protect your workforce from Australia harsh working environment.



THE STEPS TO AVOIDING HEAT STRESS

- Regular risk assessments
- Negate the heat
- Monitor weather conditions
- Cooling personal protective equipment
- Worker health training, engagement and first aid plans
- Watch out for your mates
- Keep up a hydration plan for workers
- Encourage workers to take breaks

REMEMBER HEAT STRESS IS 100% PREVENTABLE



REHYDRATION PROGRAM

Develop a program designed to provide workers with proper rehydration strategies during hot weather and strenuous activities.

Drink plenty of water

Increase electrolytes

Avoid caffeine

Eat foods high in water content

Monitor urine colour



PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) can assist with heat stress and protects workers against heat-related illnesses.

Apply and reapply sunscreen

Cover up with sun protective hats

Light and loose fitting clothes

Provide a shaded areas

Evaporative cooling equipment



HEALTH & FIRST AID

Immediate care should be given to someone who has become overheated or has suffered from a heat-related illness.

Take regular breaks

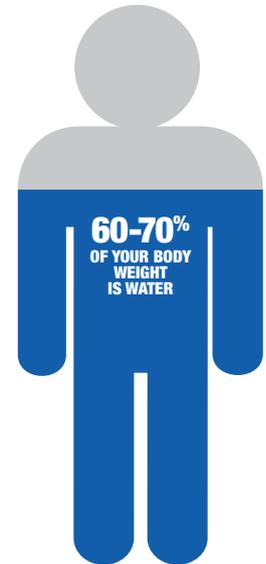
Maintain healthy body temperature

Keep up to date with weather warnings

Keep an eye on your co-workers

Have a health plan in place

IT ONLY TAKES 2% OF DEHYDRATION TO RESULT IN UP TO A 50% DECREASE IN WORK AND MENTAL PERFORMANCE



REHYDRATION PROGRAM

What is Dehydration? Dehydration is a condition that occurs when the body loses more fluids than it takes in, leading to a decrease in the overall water content in the body. This loss of fluids can disrupt the body's normal functioning and have various negative effects on health and performance. The human body is composed of a significant amount of water, accounting for approximately 60% to 70% of its total weight. Water is essential for numerous bodily functions, including regulating body temperature, transporting nutrients and oxygen to cells, lubricating joints, and eliminating waste products. Therefore, maintaining proper hydration is crucial for overall well-being.

Thirst is one of the initial signals that the body sends to indicate the need for water. When the body experiences a fluid loss of around 1% to 2% of body mass, the thirst mechanism is triggered to encourage the individual to drink fluids. However, it's important to note that relying solely on thirst as an indicator of hydration can be misleading. By the time a person feels thirsty, they are already mildly dehydrated. This delay in the sensation of thirst makes it less reliable for accurately gauging hydration status.

On average, the body loses approximately 2.5 liters of fluid through various processes such as breathing, perspiration, urination,

and bowel movements. To maintain proper hydration, it is necessary to replenish these losses by consuming an adequate amount of fluids throughout the day. Failing to do so can lead to a cumulative fluid deficit and result in dehydration.

Even mild dehydration, characterised by a loss of 2% or more of body mass, can significantly impact physical and cognitive performance. Studies have shown that a decrease in body water content of this magnitude can lead to a decline in physical endurance, reduced strength, impaired cognitive function, and decreased concentration. In fact, performance can be compromised by up to 50% in cases of moderate dehydration.

HOW MUCH WATER DO WE NEED?

Every day you lose water through your breath, perspiration, urine and bowel movements. For your body to function properly, you must replenish its water supply by consuming beverages and foods that contain water. So how much fluid does the average, healthy adult living in a temperate climate need? The National Academies of Sciences, Engineering, and Medicine determined that an adequate daily fluid intake is:



2.7L



3.7L

Keep in mind these levels of intake, on top of electrolytes, will increase as physical exhaustion occurs in a heat exposed worksite.

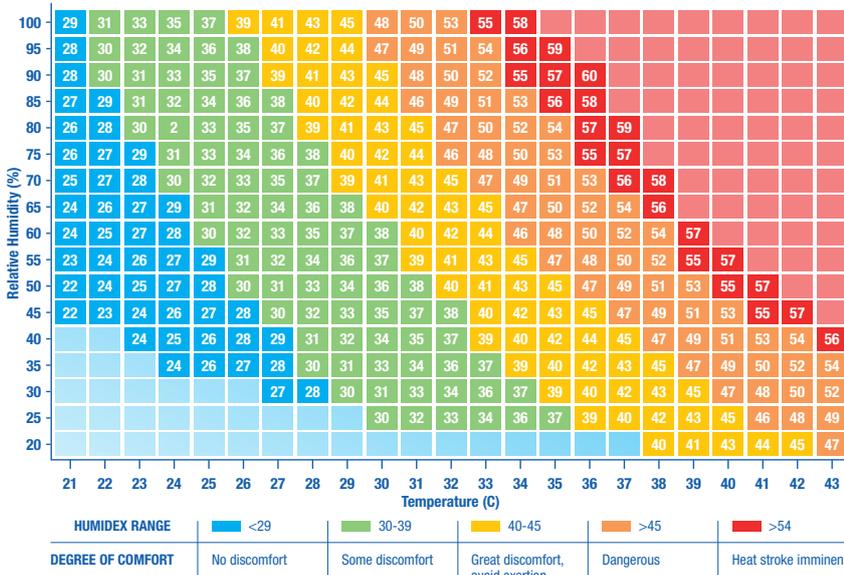
WHAT ROLE DOES HUMIDITY PLAY IN HEAT STRESS?

As the temperature rises, the often-forgotten threat of humidity can create dangerous working conditions that can lead to heat stress in workers. Heat stress can occur when the body is unable to regulate its temperature. In Australia and New Zealand, where temperatures can soar above 40°C, it's important to understand the risks associated with humidity and take steps to implement a Heat Stress Management plan. The body's natural cooling mechanisms, such as sweating, are less effective in humid environments, which can lead to an increase in body temperature. As humidity levels rise, sweating becomes less effective, which can cause the body to overheat and lead to serious health problems.

We can measure the temperature using **THE HUMIDEX** (humidity index). Humidex is a term used to describe the combined effect of heat and humidity on the human body. It is a measure of how hot the air feels to a person when both temperature and humidity are taken into account. The Humidex is expressed as a single number, which represents the perceived temperature, or how hot it feels, based on a combination of temperature and humidity. The higher the Humidex, the hotter and more uncomfortable the weather conditions are likely to be. The Humidex scale ranges from 0 to over 50, with higher values indicating more severe heat and humidity conditions. At the lower end of the scale, a Humidex value of 30 or below is generally considered comfortable, while a value above 40 is considered extremely uncomfortable and potentially dangerous.

High levels of humidity can pose a significant risk to human health, especially during periods of extreme heat. It's of the utmost importance to take measures to protect the worksite.

HUMIDEX FROM TEMPERATURE & RELATIVE HUMIDITY READINGS



THE STEPS TO AVOIDING DEHYDRATION

- Have employees take mandated three-minute breaks at regular intervals throughout the day. Keep large jugs of cold filtered water easily accessible. Encourage regular hydration both with and without electrolytes
- Post hydration reminders because sometimes workers simply forget to drink until that feeling of thirst creeps up.
- Provide reusable bottles which encourage workers to keep water and other fluids on hand at all times.
- Perform before work employee inductions. Ensure that workers are informed and aware of the dangers associated with dehydration and heat stress in the workplace.
- Always keep cold fluid close to where the hot work is performed.
- Ensure workers are aware of where the hydration stations are located.
- Inform the contact details of on-site medical personal and what to do in the event of an emergency.
- Remember that hydration is a 365 days a year concern for workers.

A GUIDE TO HEAT STRESS MANAGEMENT



REHYDRATION PROGRAM



A COMPLETE WORKSITE HYDRATION SOLUTION

To ensure a safe working environment, an adequate supply of cool drinking water and providing **Squwincher®** electrolyte replenishment is crucial for the prevention of dehydration, heat stress, injury and in the worst cases, death. Squwincher is a recognised leader in hydration solutions for hot and strenuous workplaces. These electrolyte enhanced products for effective hydration are available as a powder, liquid concentrate and frozen.

QWIK STIKS™

- Low sodium, gluten-free, caffeine-free and 99.5% sugar-free
- Easy and economical portion control
- One sachet makes 600mls
- Available in Lemonade, Lemon-Lime, Cool Citrus, Grape, Orange, Mixed Berry

SKU# SQ0100 - Orange 50 Pack SKU# SQ0106 - Grape - 50 Pack SKU# SQ0104 - Mixed 50 Pack
 SKU# SQ0101 - Mixed Berry 50 Pack SKU# SQ0107 - Lemon-Lime 50 Pack SKU# SQW100104 - Mixed - 10 Pack
 SKU# SQ0103 - Lemonade - 50 Pack SKU# SQ0109 - Cool Citrus - 50 Pack



LIQUID CONCENTRATE

- Low sodium, gluten-free and caffeine-free
- 2L bottle makes 20L, 500ml bottle makes 5L
- Mix with the Squwincher 20L cooler
- Australian Made
- Available in Lemonade, Lemon-Lime, Wild Berry, Grape, Tropical Cooler, Orange

SKU# SQ0028 - Lemon-Lime 2L SKU# SQ0047 - Tropical Cooler 2L SKU# SQ0051 - Mixed Flavours 2L
 SKU# SQ0042 - Orange 2L SKU# SQ0050 - Grape 2L SKU# SQ0034 - Mixed Flavours 500ml
 SKU# SQ0046 - Wildberry 2L SKU# SQ0052 - Lemonade 2L



KEEPING WORKERS SAFE AND PRODUCTIVE IN HOT WORKPLACES



SQWEEZE®

- Frozen electrolyte format
- Low sodium, gluten-free and caffeine-free
- Five flavours in a mixed pack including Lemon-Lime, Mixed Berry, Grape, Cherry, Orange
- Freeze in one of the Sqwincher Freezers, ask us how!



SKU# SQ159200201 Squeeze 10 Pack - Mixed Flavours



SQWEEZE® ZERO

- 98% sugar-free
- Frozen electrolyte format
- Low sodium, gluten-free and caffeine-free
- Five flavours in a mixed pack including Watermelon, Dragonfruit, Punch, Orange, Mixed Berry
- Freeze in one of the Sqwincher Freezers, ask us how!



SKU# SQ159200232 Squeeze Zero 10 Pack - Mixed Flavours



FAST PACKS®

- Extra convenience - The pack is your cup
- Fast pack contains 180ml of Sqwincher
- Portion controlled
- Low sodium, gluten-free and caffeine-free
- Available in Lemon-Lime, Orange, Tropical Cooler, Wild Berry



SKU# SQ0066 - Lemon-Lime 50 Pack
SKU# SQ0097 - Orange - 50 Pack
SKU# SQ0098 - Tropical Cooler 50 Pack

SKU# SQ0099 - Wild Berry 50 Pack
SKU# SQ0090 - Mixed 10 Pack



DID YOU KNOW? ONCE INTERNAL BODY TEMPS REACH 40°C IT ONLY TAKES 30 MINUTES TO CAUSE BRAIN DAMAGE... OR WORSE.



PROTECTIVE EQUIPMENT

One of the most important ways to prevent heat stress is to wear appropriate clothing. Workers should wear lightweight, breathable fabrics, such as cotton, and avoid heavy or tight-fitting clothing that can trap heat. A hat or other head covering can also help to protect against the sun's harmful rays. But sometimes, even the most breathable clothing isn't enough to keep workers cool in extreme heat.

That's where the Ergodyne Chill-its Range of cooling PPE comes in. These innovative products are designed to help workers stay cool

and comfortable even in the hottest conditions.

Working outside in the heat is a health hazard, and it's essential to take measures to prevent heat stress and dehydration. Wearing lightweight, breathable clothing and staying hydrated are crucial, but for those working in extreme heat, the Ergodyne Chill-its range of cooling PPE is an excellent solution to stay cool, comfortable and safe.

Don't let the heat affect your productivity, invest in the right gear and stay safe on the job.



THE 4 TYPES OF COOLING TECHNOLOGY



WET EVAPORATIVE

Instantly activates with water and airflow for up to 4 hours of cooling



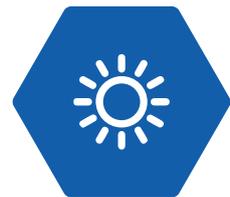
DRY EVAPORATIVE

Fill with water and add airflow for up to 3 days of 100% dry cooling



PHASE CHANGE

Low-profile charge packs do not require airflow for effective cooling

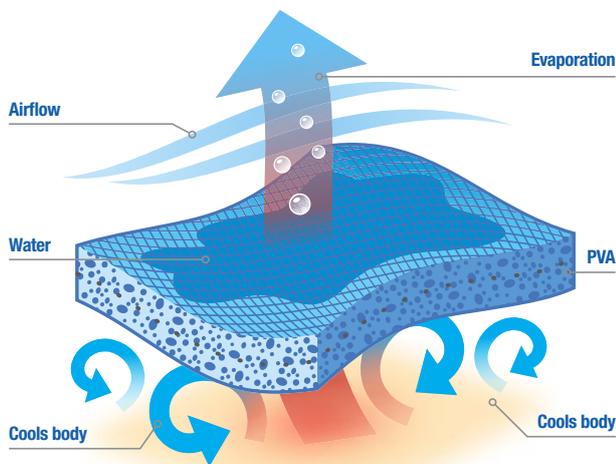


SUN PROTECTION

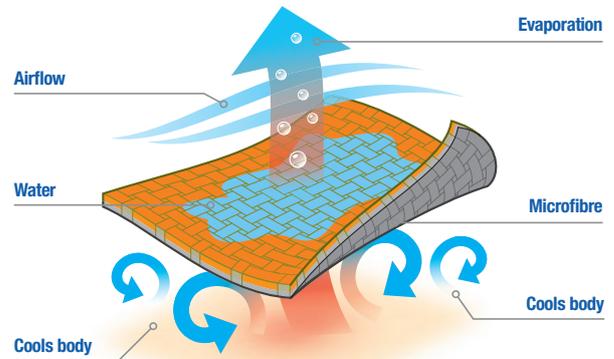
Fabric accessories shade the face and neck for protection against sun

THE METHODS OF EVAPORATIVE COOLING

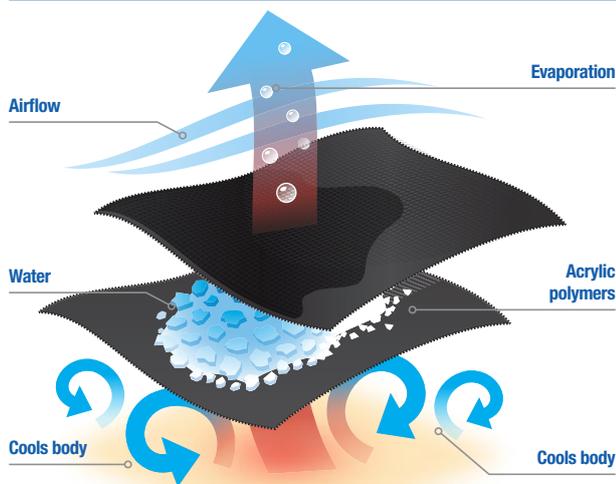
Evaporative Technology is a cooling method that harnesses the natural process of evaporation to extract heat from the air. This technology involves using water and applying it against the skin. As the water evaporates, it draws heat from the body, creating a refreshing cooling effect. By integrating water and airflow, four distinct evaporative methods have been developed to take the science of sweat to new heights, delivering instant cooling sensations.



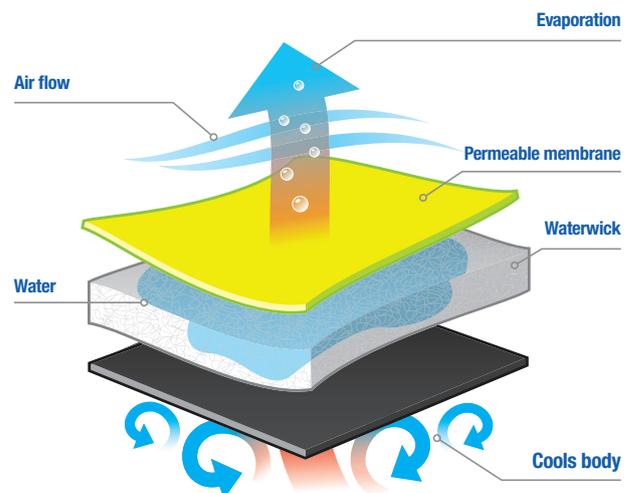
1 // PVA: Absorbing like a sponge, hyper-evaporative Poly Vinyl Alcohol (PVA) holds the most water for maximum cooling power while remaining mostly dry to the touch.



2 // MICROFIBER: Ultra-soft, absorbent and moisture-wicking, microfibre is an always-on double threat - comfortably absorbing and wicking sweat when dry, refreshingly cool when wet.



3 // ACRYLIC POLYMERS: When soaked in cold water, super-absorbent acrylic polymers plump up with moisture to deliver extended cooling relief.



4 // DRY EVAPORATIVE COOLING: Body heat and air will cause the water within the vest to evaporate to cool the wearer down. A 100% dry cooling experience.

PROTECTIVE EQUIPMENT



A COMPLETE WORKSITE COOLING SOLUTION

Along with water, electrolytes, rest and shade, experts recommend Cooling PPE as a simple way to maintain safe body and skin temps throughout the shift. And with advanced technologies putting the chill on full blast, keeping cool has never been... well, cooler. **Ergodyne** Chill-Its Cooling Technologies are engineered to make sure workers have a stay-cool solution in any indoor or outdoor inferno.

BANDANA



CHILL-ITS 6700 EVAPORATIVE COOLING BANDANA – TIE

Multiple ways to wear / Long lasting instant cooling relief / Hours of cooling / Easy to use / Durable / Low-profile / Comfortable / Reusable / Hand wash

SKU# 12301 - LIME / 12307 - BLUE / 12306 - NAVY W / 12305 - RED W / 12304 - CAMO

BANDANA



CHILL-ITS 6700CT EVAPORATIVE COOLING BANDANA WITH COOLING TOWEL – TIE

Hyper-evaporative PVA easily activates with water for up to four hours of cooling / Low-profile / Comfortable / 100% cotton / Tie closure / Workday to weekend / Machine wash

SKU# 12566 - LIME / 12567 - BLUE

TOWEL



CHILL-ITS 6710 EVAPORATIVE COOLING TRIANGLE HAT

Instant cooling relief / Drip-free cooling / Long-lasting / Reusable easy to re-activate / Low-profile / Reduces the effects of heat stress / Machine washable

SKU# 12327

MULTI-BAND



CHILL-ITS 6487 COOLING MULTI-BAND

Instant cooling relief / Sun protection / Fits most hard hats / Low-profile / Long and wide neck shade / Comfortable / 100% polyester / Reusable / Machine washable

SKU# 42127 - HI VIS LIME / 42128 - HI VIS ORANGE / 42129 - BLUE

KEEPING WORKERS SAFE AND PRODUCTIVE IN HOT WORKPLACES

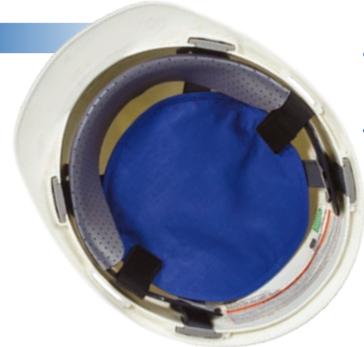
HARD HAT LINER



CHILL-ITS 6716 EVAPORATIVE COOLING HARD HAT LINER

Lightweight / cooling acrylic polymers / Hook & loop closures
Easily attaches to hard hat / Easy activation / Low Profile /
Reactivate by re-soaking / Works for for up to 4 hours
SKU# 12338

HARD HAT LINER



CHILL-ITS 6715 EVAPORATIVE COOLING HARD HAT COOLING PAD

Lightweight / cooling acrylic polymers / Hook & loop closures
Easily attaches to hard hat / Easy activation / Low Profile /
Reactivate by re-soaking / Works for for up to 4 hours
SKU# 12337

HARD HAT LINER



CHILL-ITS 6609 HARD HAT SWEATBAND LINER - TERRY CLOTH

Absorbent 100% cotton terry cloth / Prevents sweat from dripping
into eyes / Fits most hard hats / Easily and securely attaches to hard
hat / Low-profile / Quick drying / Comfortable / Machine washable
SKU# 42201

SKULL CAP



CHILL-ITS 6632 COOLING SKULL CAP

Performance knit fabric / Instant cooling relief / Low-profile / Snug
and comfortable fit / Moisture-wicking / Sun protection UPF 50+ /
Anti-odor treatment / Reflective accent / Machine washable
SKU# 12689

HAT SHADE



CHILL-ITS 6660 HARD HAT BRIM WITH SHADE

Sun protection / Lightweight / Universal fit / Wide brim / Long
neck shade / Durable brim / High visibility / Reusable and hand
washable
SKU# 12640 - LIME / 12641 - ORANGE / 12643 - NAVY

COOLING / HAT SHADE



CHILL-ITS 6670CT EVAPORATIVE COOLING HARD HAT NECK SHADE

Multiple ways to wear / Low-profile / Hours of cooling / Moisture-
wicking / UPF 50+ sun protection / Reflective accents / Anti-odor
treatment / Machine washable
SKU# 12523

PROTECTIVE EQUIPMENT

SPECIALTY WORKWEAR

Chill-Its 6602 Evaporative Cooling Towel



The **Chill-Its 6602 Evaporative Cooling Towel** features advanced PVA cooling technology for relief in extreme heat. When wet, this towel remains lightweight and comfortable for bulk-free wear around the neck or head. Heat-related illness continuously ranks among the top causes of worksite accidents and fatalities. Evaporative cooling technologies such as PVA (polyvinyl alcohol) are a simple, effective and comfortable solution for heat stress prevention. Similar to how sweat cools the body, evaporative technologies use an external water source to draw heat away—helping to regulate body temperature while providing cool relief. When activated, this PVA cooling towel is comfortable and refreshing for even the hottest days of the year. Run the PVA cooling towel under water for one minute or until saturated, wring out excess water and wave to activate with airflow. Drape towel around neck or head for four hours of cooling relief. The PVA material will dry stiff like a sponge—simply rewet until soft to reactivate. Machine wash, hang dry and conveniently store in the included plastic container when not in use. This evaporative cooling towel is ideal for construction, landscaping, roofing or anyone working in the heat.

EASY ACTIVATION

Reusable: Re-wet to activate

Run or submerge under water for one minute to activate cooling technology

4 HOURS OF EVAPORATIVE COOLING

PVA easily activates with water for cool relief on hot days

STIFF WHEN DRY, SOFT WHEN WET

Hang dry

Wet to activate

PVA material will dry stiff like a sponge, simply rewet to soften

PERFECT FOR WORK & WEEKEND

Simple, effective and comfortable solution for heat stress prevention

- » **INSTANT COOLING RELIEF** - Run under water for one minute or until saturated, wring out excess water for drip free cooling
- » **LONG LASTING** - Can last for up to 4 hours on a single soak. Simply re-wet to increase cooling duration
- » **HOW DOES IT WORK?** - Cooling PVA material absorbs water and creates a cooling sensation as it evaporates
- » **REUSABLE & MACHINE WASHABLE** - Air dry until material is stiff, re-wet until soft and machine washable with mild detergent
- » **HEAT STRESS PREVENTION** - Reduces the effects of heat exhaustion and fights fatigue while working or playing in the heat - can also be used to help bring down fevers, hot flashes or night sweats
- » **PLASTIC TUBING CONTAINER IS RECYCLABLE**

6602 Evaporative Cooling Towel / SKU# 12420

KEEPING WORKERS SAFE AND PRODUCTIVE IN HOT WORKPLACES

COOLING BAND



CHILL-ITS 6603 EVAPORATIVE COOLING BAND

Immediate and long-lasting cooling relief / Long lasting cooling effect for up to 4 hours / Quick recharge / super-evaporative PVA material / Machine washable

SKU# 12418

MULTI-BAND



CHILL-ITS 6486 FIRE RESISTANT MULTI-BAND

Nomex knit fabric is approved to NFPA 70E for protection against arc hazards / Multiple ways to wear / Protects against the elements / Low-profile / Quick drying / Comfortable / Machine washable

SKU# 42201

VEST



CHILL-ITS 5155 LOW PROFILE HYDRATION PACK

On-the-go hydration / 2.0L high-quality thermoplastic bladder / No plastic taste / Lightweight & low-profile / Wide dualcap opening / Zippered top closure / Insulated pack & tube / Breakaway design

SKU# 13156 - LIME / SKU# 13157 - ORANGE

VEST



CHILL-ITS 6215 PREMIUM FR PHASE CHANGE COOLING VEST WITH PACKS

Immediate and long-lasting cooling relief / Maintains 18°C for up to 4 hours / Flame resistant / Quick recharge / Design eliminates stiffness / Reflective accents

SKU# 12220 - S/M / 12221 - L/XL / 12202 / CHARGE PACKS SKU# 12202

VEST



CHILL-ITS 6665 EVAPORATIVE COOLING VEST

Quick activation / Hydrated for up to 4 hours / Zipper closure / Quilted nylon outer layer / Activated polymer-embedded / Water-repellent liner / Lightweight / Durable / Washable

SKU# 12533 - M / 12534 - L / 12535 - XL / 12536 - 2XL / 12537 - 3XL

VEST



CHILL-ITS 6260 LIGHTWEIGHT PHASE CHANGE COOLING VEST WITH PACKS

Immediate and long-lasting cooling relief / Maintains 15°C for up to 2 hours / Quick recharge / Lightweight / Flexible fit / Environmentally friendly

SKU# 12133 - S/M / 12135 - L/XL / 12120 - 6250 / CHARGE PACKS SKU# 12120



SPECIALTY WORKWEAR

Chill-Its 6685 Premium Dry Evaporative Cooling Vest



SKU# 12673 - M
 SKU# 12674 - L
 SKU# 12675 - XL
 SKU# 12676 - 2XL
 SKU# 12677 - 3XL
 SKU# 12678 - 4XL



M	L	XL	2XL	3XL	4XL
97-104cm	104-112cm	112-119cm	119-127cm	127-135cm	135-142cm

The **Ergodyne Chill-Its 6685 Dry Evaporative Cooling Vest** offers immediate dry cooling relief that lasts up to three days. The exclusive dry evaporative technology keeps the wearer completely dry and comfortable as opposed to other cooling vests on the market that require soaking. Constructed with high-visibility industrial grade quality nylon to perform in the toughest conditions. Design features V-neck with front zipper closure, and the mesh side panels provide additional ventilation and stretch for a comfortable fit. Not to be worn underneath thick or heavy layers of clothing, this body cooling vest needs airflow in order to activate and for the evaporation process to take place. Do not clean the inside reservoir. Cooling material is treated with an anti-microbial that inhibits mold growth. Always keep cap closed to maintain vest's effectiveness. This evaporative cooling vest is perfect for anyone in need of instant cooling relief while working in warm temperatures.

DRY & COMFORTABLE

Releases water through evaporation from inside out, keeping you cool and dry

LONG LASTING EFFECT

Provides at least 1 full day of cooling (up to 3 days) in ideal conditions

QUICK & EASY ACTIVATION

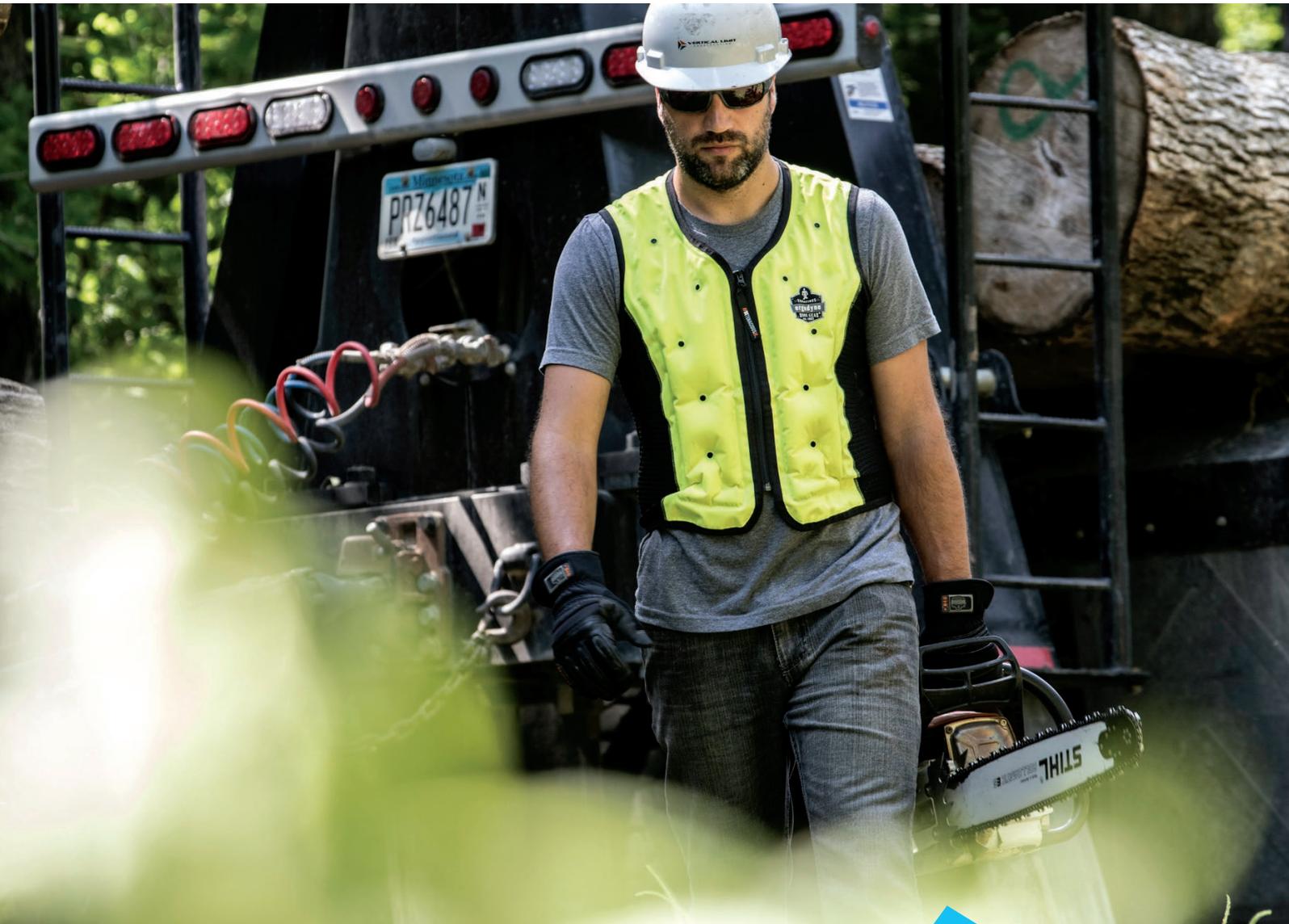
Fill vest with 400-450ml of water

LIGHTWEIGHT & DURABLE VENTILATED COMFORT

Industrial grade quality nylon and mesh side-panels provide additional ventilation

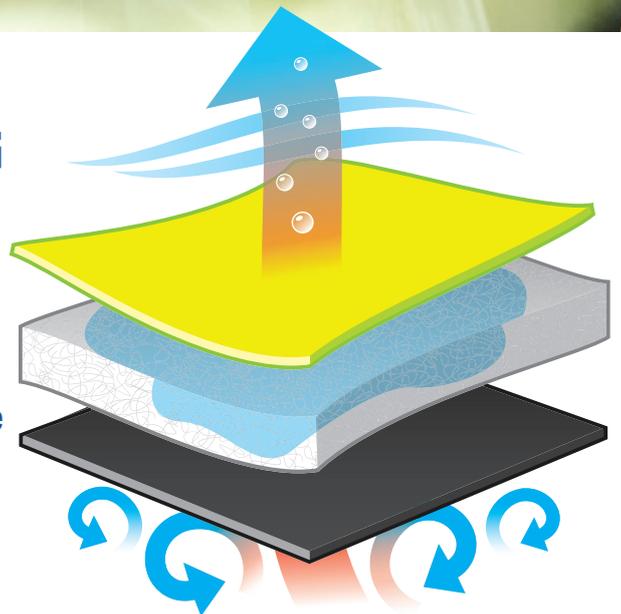
- **DRY & COMFORTABLE** – Exclusive dry technology keeps wearer completely dry and comfortable
- **ANTI-MICROBIAL TREATMENT** – Cooling material is treated with an anti-microbial that prevents mold growth
- **WIDE VARIETY OF USES** – Reduces the effect of heat exhaustion and fights fatigue while working or playing in the summer outdoor heat
- **MACHINE WASHABLE** – Do not clean the inside reservoir



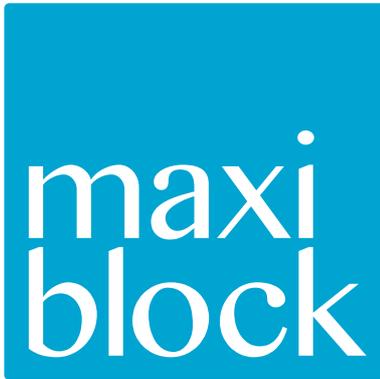


DRY EVAPORATIVE COOLING

The principles of dry evaporation are similar to wet evaporation in that the cooling process is activated by water and airflow. Body heat and the surrounding air will cause the water within the vest to evaporate – cooling the wearer down. Patented dry evaporative cooling provides an innovative and effective alternative to those looking for: a 100% dry cooling experience, lightweight, extended cooling, low-maintenance and easy-to-use.



PROTECTIVE EQUIPMENT



A COMPLETE WORKSITE SUNSCREEN SOLUTION

Australia and New Zealand have very high levels of UV radiation during summer months. That's why it is important to protect yourself against these damaging sun rays with well formulated sunscreen. **Maxiblock** protects workers from both UVA and UVB sun rays.

SUNSCREEN

ESSENTIAL

Maxiblock **Essential Sunscreen** is a non greasy SPF50+ sunscreen lotion and is the perfect choice for worksites, a non-greasy, non-irritant formula providing an effective barrier against the harsh sun.

- SPF50+ very high protection UVA and UVB broad spectrum
- Non greasy sunscreen, free from alcohol, fragrance or mineral oil
- Features dry touch technology for a light natural skin feel
- Skin-friendly dermatological tested formula
- Australian Made / Designed and made for harsh conditions



SKU# **MB76110** - 75ml Tube / SKU# **MB76646** - 100ml Tube / SKU# **MB76649** - 200ml Tube / SKU# **MB76648** - 250ml Spray / SKU# **MB76650** - 500ml Pump / SKU# **MB76651** - 1L Pump / SKU# **MB76642** - 5g Lip Balm

SUNSCREEN INSECT REPELLENT

OUTBACKER

The **Outbacker Sunscreen with Insect Repellent** is a SPF50+ sunscreen with insect repellent for when you need protection from the sun and from insects such as flies or mosquitoes.

- SPF50+ / UVA & UVB Broad Spectrum
- 4 Hours Water and Sweat Resistant
- Effective Against Flies and Mosquitoes
- Skin-Friendly Dermatological Tested Formula
- APVMA Approved / Compliant with Latest 2012 TGA Standard
- Australian Made



SKU# **MB76601** - 100ml Tube / SKU# **MB76602** - 1L Pump Bottle

SPECIALTY

ALOE VERA

Maxiblock have created a complete alcohol-free natural moisturising **Aloe Vera Soothing Gel** that contains properties of the Aloe Vera plant to assist in the retention of your skin's natural moisture content.

- Contains natural aloe vera in a convenient pure aloe vera gel
- Cools, moisturises and revitalises skin aggressed by sunburn, minor burns, wind, sea or other harsh conditions
- Fast relief, helps minimise skin peeling
- Non-greasy, easily absorbed into your skin
- Alcohol free, suitable for sensitive skin

SKU# **MB76630** - 125ml Tube



SPECIALTY

MINERAL

Maxiblock **Mineral** Sunscreen Cream is a lightweight non-greasy clear zinc sunscreen for face and body. It features the latest clear zinc technology and rubs invisibly onto the skin with exceptional transparency and dry touch feel.

- Novel invisible clear zinc technology, non greasy dry touch
- 100% vegan (no beeswax)
- Suitable for those with sensitive skin or allergic to organic UV filters
- Contains 25% zinc oxide that rubs in invisible
- Australian Made

SKU# **MB76120** - 75ml Tube



SPECIALTY

ZINC

Maxiblock **Mineral Zinc Stick** SPF50 offers high broad-spectrum protection against UVA and UVB rays, with 25% zinc oxide. This vegan sunscreen is non-greasy and free from organic chemical filters, water resistant for up to 2 hours, and gentle enough for sensitive skin.

- Exceptional UVA Protection / SPF50+ / UVA & UVB Broad Spectrum
- 2 Hours Water & Sweat Resistant
- Available in White and Bronze Tint
- Skin friendly dermatological tested formula
- Designed and made in Australia for the harsh conditions

SKU# **MB76654** - 12g Lip Balm / SKU# **MB76655** - 12g Lip Balm





WHAT TO WEAR WHEN WORKING OUTSIDE IN THE HEAT

As temperatures soar in unpredictable climates, working outside can cause overexposure to the sun, leading to heat stress and dehydration. Workers across Australia and New Zealand are asking themselves what to wear when working outside in the heat. According to Safework Australia, working in extreme heat can lead to a range of heat-related illnesses, including heat rash, heat exhaustion, and heatstroke. It's essential to know the signs of heat stress and take measures to prevent it.

KEEPING YOUR COOL

One of the most important ways to prevent heat stress is to wear appropriate clothing. Workers should wear lightweight, breathable fabrics, such as cotton, and avoid heavy or tight-fitting clothing that can trap heat. A hat or other head covering can also help to protect against the



sun's harmful rays.

But sometimes, even the most breathable clothing isn't enough to keep workers cool in extreme heat. That's where the **Ergodyne Chill-its Range** of cooling PPE comes in. These innovative products are designed to help workers stay cool and comfortable even in the hottest conditions.

THE SOLUTIONS

The Chill-Its range includes a variety of cooling products. Vests, towels, bands, and hat shades, all of which are designed to keep workers cool and prevent heat stress. All of the Ergodyne range is made from special cooling fabrics that absorb and hold water, providing an instant cooling sensation when worn.

Dehydration is also a major risk for workers in the heat, and

it's important to stay hydrated throughout the day. Workers should drink plenty of water and avoid sugary or energy drinks that can dehydrate the body. The **Sqwincer** range of Electrolyte Enhanced beverages is the healthiest, and best choice when it comes to dehydration. Combined with the Ergodyne's Chill-Its Range and Sqwincer, workers really can beat the heat.

Working outside in the heat is a health hazard, and it's essential to take measures to prevent heat stress and dehydration. Wearing lightweight, breathable clothing and staying hydrated are crucial, but for those working in extreme heat, the Ergodyne Chill-its range of cooling PPE is an excellent solution to stay cool, comfortable and safe. Don't let the heat affect your productivity, invest in the right gear and stay safe on the job.