

ACT Fire & Rescue

Community Fire Units

Information Booklet

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Training Drills

Background:

The drills and information in this guide build on the CFU Induction Program drills. These training drills are for those members who have undertaken and are proficient in the basic drills covered in the induction practical training.

How to use this guide

Before commencing any drills, please review the safety checklist on **page 5**. This checklist will help you to ensure all reasonable measures are taken to keep your training area and participants safe.

Undertake the drills as detailed in this guide.

How to use these drills:

The drills in this guide can be used in several ways.

- 1. By Team Leaders and trainers to maintain the skills of their CFU members.
- 2. By CFU members and ACTF&R pumper crews when undertaking joint training.

Communications: A part of good communication is to ensure all members understand their roles and responsibilities. The **buddy system** is always used, whereby individuals are paired or teamed up and assume responsibility for one another's welfare or safety.

Hydration: All CFU recruits and members participating in these drills should be aware of the need to constantly drink water when undertaking these drills to avoid dehydration.

Restoring Operational Capability: At the completion of any drill session, all CFU equipment must be made available for the next activation. Therefore, it is important that all equipment is checked to make sure it is operationally ready and put back in the trailer.

Safety and safe working practices:

Equipment: All CFU members are required to wear issued CFU uniform and PPC when participating in practical drills. A photo of CFU PPC is shown below:



Team Leaders are to record all members who attended the drills (in the trailer **occurrence book)** and track which drills that have been refreshed on the recording sheet on **page 35**.

At the end of the fire season, Team Leaders are to access the *CFU refresher recording form*, found on the ACTF&R CFU website under documents, and save the document to your computer. Fill out the electronic form with all the information recorded over the fire season and **email** to the CFU coordination team at **ACTFBCFU@act.gov.au** at the end of the fire season.

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Safety checklist

Consider external factors	 Weather conditions TOBANS Inclement weather Community impact 	
Costs	Equipment required	
Environmental	Water recyclingRun off	
Safety	Risk assessments	
	 Note book Formal – Online risk assessment documents Dynamic risk assessment during drill 	
Clean up	 Clean up drill area Return all equipment to operational capability 	
Reporting	Notify CFU and neighbours	
	 Other CFU's Nearest ACTF&R station COMCEN if required CFU coordinator if required 	

CFU's will not be activated during Catastrophic Fire Danger Rating (FDR) periods

Communication

Hand signals

Objective: To demonstrate appropriate hand signals used during fire ground operations.

Water on

- o Indicate <u>water on</u> by raising and lowering the arm in a deliberate chopping motion or holding your arm **vertical**.
- Ensure the CFU member turning the water on <u>returns</u> the same signal to indicate the water has been turned on
- o Back up the visual signal with a loud voice signal or radio message.



Water off

- Indicate <u>water off</u> by a deliberate chopping motion across the body or holding arm out **horizontal**
- Ensure the CFU member turning the water off <u>returns</u> the same signal to indicate the water has been turned on
- o Back up the visual signal with a loud voice signal or radio message.





CFU Accountability Board

Purpose:

All CFU Units carry an accountability board, which is located on the internal side of a trailers fold outdoor. The boards are designed to hold the yellow magnetic name tags of all members of that CFU unit, with the team leaders name tag coloured **BLUE**.

The purpose of an accountability board is to ensure that the team leader or any ACTF&R personnel (usually the Station Officer) can quickly identify who is currently engaging in firefighting activities at a glance, ensuring WHS protocols are adhered to.

Use:

- The unit accountability board *must* be used when the unit is engaging in training activities or activated during an emergency incident by all members present.
- A CFU accountability board has two columns titled **MEMBERS** and **AVAILABLE.**
- When a member arrives at the trailer, he/she must first move their own name from the MEMBERS column to the AVAILABLE column for the duration of the activity.
- When the activity is finished, and the member is ready to leave, he/she must move their name from the AVAILABLE column to the MEMBERS column.

MEMBERS	AVAILABLE
Joe SMITH	
Sally JONES	
Mark STRONG	
Johnathan FRAKES	
Patrick STEWART	

At the end of the training/incident, it is the Incident Controller's responsibility to ensure all members' name magnets have been returned by the members to the MEMBERS side of the control board. This ensures that all members who were 'on deck' at any training/incident have been accounted for and have left the fire ground safely.

Any name magnets remaining on the **AVAILABLE** side of the control board must be investigated.

NOTE

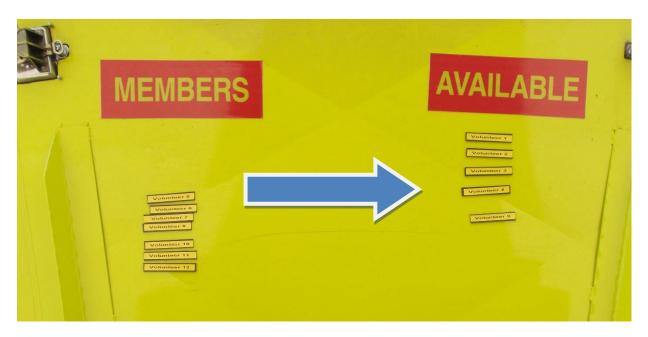
- Members must move only their own name magnet between each side of the control board. They must not ask other CFU members to move their name for them nor should a CFU member move another CFU member's name magnet.
- New CFU members will be issued their individual name magnet on completion of induction training. They will place it on the <u>MEMBERS</u> side of their CFU trailer at the first available opportunity and notify the responsible team leader.
- Check the bottom of the trailer for any member name magnets which may have fallen off during transit over rough terrain to the incident scene.

CFU staff will notify CFU team leaders when a CFU member from their trailer has declared themselves *inactive*. Their name magnet can then be removed from the trailer control board.

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Accountability board example - no members are training/on the fire ground



Accountability board example – four members plus team leader are training/ on the fire ground and have moved their name tags from "MEMBERS" to "AVAILABLE"

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Radios

The radio network is crucial to operational communication. During incidents, teams may work in isolated and dangerous situations. The portable radio is often the only means of communication available. It is critical to the safety of all personnel, that everyone knows how to operate the radio competently and adheres to correct radio procedure.

Each Trailer is equipped with two types of radios

1 X TRN – for team leader to communicate with ACTF&R (COMCEN or crews) 5 X

Benelec – for internal CFU team communication

As these radios work on different frequency's, Team Leaders will need to carry two radios during operations.

Radio allocation when CFU is stood up:

- Team leader with extension mike (Harris radio for Comcen) and Benelec radio
- Hydrant or pump operator
- Branch team #1
- Branch team #2

Procedure

- Radios are to be kept in a charged state when not in use
- Team leader will determine channel selection
- Team leader to carry out radio tests as required

TRN

ACTF&R use the **Trunked Radio Network (TRN)** for radio communications. All CFU Team leaders also operate a Portable *XL* – *200P HARRIS RADIO* which they can use to communicate to **ACTF&R COMCEN** *or* any ACTF&R appliance.

All 4 agencies in the ESA use the TRN, which provides for inter-agency communication when required.

"Trunking" refers to the network being controlled by computer. When a TRN radio is switched on, the computer monitors the talk group **(TG)** selected.



XL - 200P HARRIS RADIO



XL – 200P HARRIS RADIO CONTROLS (TOP/FRONT/SIDE VIEWS)

Radio controls

Although the appearance of the various radios available may differ, two-way radios have the same basic features and controls. Here are some controls commonly found on two- way radios:

- Power/Volume Turn clockwise to power on and increase volume
- A/B switch Locks navigation keys, soft keys and keypad
- Channel knob Selects channels numbered 1 16
- Channel bank A/B/C/D switch Selects one of four channel banks
- PTT Push-To-Talk button
- **Emergency** This function declares and emergency
- Soft keys x 3 Selects different functions (Audio playback, Select group/channel, Scan)
- Menu/Select button Access menu options
- Navigation buttons Navigates through the menu options (Down, left, right)

Changing Zones & Channels (Talk Groups)

- Press middle 'Soft Key' under 'SEL CH/GRP' tab on the screen See diagram 1
- Use the Navigation buttons (◀▶ ▼▲) to select the desired Zone and Channel, then press the Menu/Select button (Central button) – See diagram 2
- CFU Radios can select between 'Group CFU' and 'CB Channels'



Zone CFU	Zone CB 41-80	Zone 1-40
5 OPS 5	CB channels 41-80	CB channels 1-40
6 OPS 6		
10 OPS 10		
11 OPS 11		
ESA 1		
ESA 2		
ESA 3		
ESA 4		
ESA 5		
ESA 6		
RP BlackMt		
RP OneTree		
RP Tennent		
RP Ainslie		
RP Isaacs		
RP Stromlo		

Changing Channels (Talk Groups)

There are several ways to change Channels and Zones.

- Channel Selector Knob/Group Selector Switch:
- CFU radios have access to group A zone CFU 1 16, zone CB 1 40 and zone CB 41 – 80.
- Use the Channel Selector knob (1 16)

Channel Selector Knob



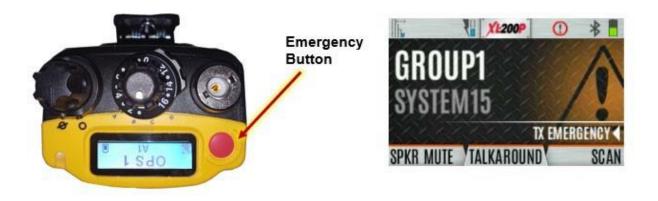
Example Shown: Group A, Channel 1: A1 Channel Name: OPS 1 NB: This screen does not show 'Zone'

Declaring an Emergency

To declare an emergency:

- > Press and hold the emergency button on the radio or speaker mic for 1 second
- ➤ The emergency icon is displayed with text "TX EMERGENCY"
- The radio will enter a "Hot Mic" period where the radio will transmit automatically for <u>20 seconds</u>.
- At any time during, or after a "Hot Mic" period, the user can transmit using the PTT
- > To disengage the emergency button, hold down until you hear an audible "beep"

If activated by mistake, ensure you inform COMCEN





Accessory mic for Harris radio

Accessories

The Harris Radio can add a Remote Speaker Mic (RSM) to the handset body.

To install RSM:

- > Turn off radio
- Remove cover on right side of radio to reveal accessory connector
- Attach RSM to radio accessory connector. Attach the top of the connector first, then push and turn the thumb screw
- > Tighten the mounting thumbscrew finger tight only
- Turn on radio and wait for LED to flash once indicating boot is complete.



Care and Cleaning

Periodically clean the radio using the following procedure:

- Remove dust and dirt using a damp cloth. Warm water and mild detergent soap may be used.
- > Wipe dry.
- > Remove battery and wipe battery contacts with dry cloth.
- > Remove accessory and clean contacts using a clean, dry cloth.
- ➤ If no accessories are attached, ensure protective covering is placed over accessory connectors.
- For extremely dirty radios, use a soft-bristle, non-metallic brush to remove debris.
- > DO NOT use chemical cleaners, spray or petroleum-based products.
- > DO NOT spray cleaning solution directly onto radio.

Battery Settings

To access battery information, follow these steps:

- > Press Menu/Select to access main menu
- Navigate to UTILITY menu
- Scroll to the MAINTENANCE menu and select
- Scroll to BATTERY INFO and select
- > Battery information displays include:
- o State
- Voltage
- Capacity
- Chemistry
- Press BACK to exit menu





To remove the battery, follow these steps:

- Lift the belt clip and slide the battery into the top of the battery compartment on rear of radio
- Press down on bottom side of battery until it snaps into place (you will not need to force this)
- To remove battery, press and hold the two tabs at the bottom sides of battery and pull battery up and out





CFU CB - Benelec BL520



The Benelec BL520 is the standard CB radio used by all members of a CFU unit on the fire ground. It's is a rugged and reliable UHF/VHF portable radio that is dust resistant and rated to withstand low pressure jets of water. It is a standalone unit and is **not** connected to the ACTF&R TRN radio network

Each CFU trailer is equipped with 1x HARRIS radio and 5x Benelec BL520 portable radios.

Key features include:

- Channel select knob
- On/Off/volume control
- Auto squelch (tuning button to be used when tuning your radio)
- Push-To-Talk (PTT) button (to operate and talk around your unit)

Radio allocation when CFU is stood up:

- Team leader with extension mike (Motorola radio for Comcen) and CB radio
- Hydrant or pump operator
- Branch team #1
- Branch team #2

Procedure

- Radios are to be kept in a charged state when not in use
- Team leader will determine channel selection
- Team leader to carry out radio tests as required

NOTE:

When operating your Benelec radio, ensure that all members of your unit are on the <u>same channel</u> to ensure clear communication can always be maintained while in use.

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ACT Fire & Rescue

Community Fire Units

Drills

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CFU Useful Terminology

Terms to familiarise yourself with:

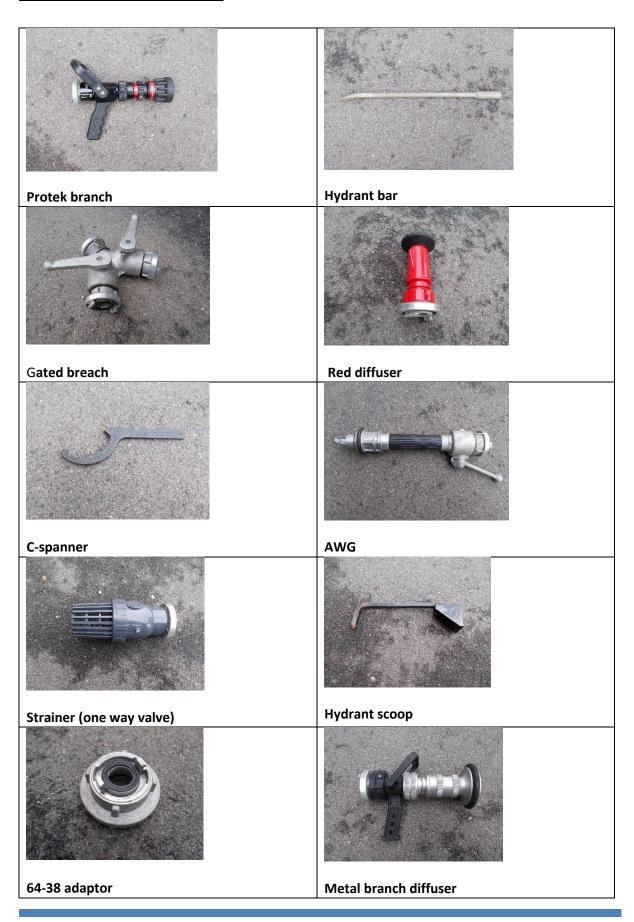
- **STILL** Safely cease all operations immediately. This direction may be issued by any member on the training ground and used when a member is at risk of injury for example.
- CARRY ON Continue what you were doing.
- GET TO WORK Start exercise or scenario.
- MAKE UP Tidy, clean and stow equipment away.
- EMERGENCY WARNING HORN 3 X short blasts on the air horn means you cease all
 operations immediately and proceed to the nominated safety zone (For example, your
 CFU Trailer).

Remember, <u>always</u> ensure correct Personal Protective Clothing and Equipment is worn on the fire ground.

For your safety and to ensure a successful day of training please familiarise yourself with the following risks and preventative measures.

- **1.** Evacuation / Cease Operations Proceed to identified safety zone (for example the trailer) and await instruction.
- **2.** Weather Ensure re-hydration, sunscreen, and head covering is used to protect from falling object caused by heavy wind.
- **3.** Slips, trips and falls Familiarise yourself with the drill area and identify any trip hazards. Be aware that the drill area may be wet and slippery at times. Ensure correct footwear is worn.
- **4. Drill Yard** Be aware of vehicle and people movements on/around the drill area.
- **5.** Manual Handling Do not attempt to move or lift heavy equipment individually, always ask for assistance. If unsure notify your Team Leader for advice.
- **6.** Water Pressure Water pressure can be a danger if not handled with care. Ensure you use the equipment correctly and all hose connections and standpipe are fitted correctly and locked in place.

Visual Equipment Glossary



Drill <u>One</u> Basic trailer and content identification:

D 111 0	A Second Callelle		
Drill <u>One</u>	Aim of drill:		
Basic trailer and content	The aim of this drill is to ensure all members are familiar with the layout of		
identification:	their unit trailer as per the inventory. This will ensure that in the event of		
ideimileanon.	an emergency, each member will be able to locate any piece of		
	equipment without much time delay.		
	This drill can be completed in any location away from public traffic (e.g.		
	a drive way)		
	Demonstrate:		
	Correct identification of all equipment and its location within the unit		
	trailer		
	Identification of missing/broken equipment (To be reported to CFU		
	coordination team)		
	·		
Practical	CFU trailer:		
resources:	All contents of trailer		
Safety	Define exclusion zones		
Considerations:	Public traffic		
	Clear communication to members – visual or through use of radio		
	Safety Officer (usually Team leader unless otherwise designated)		
	If member is uncomfortable with any part of the exercise, they should		
	advise the Team leader		
PPE/PPC for	• CFU issued:		
members:	o CFU Tunic and pants		
	o Gloves		
	o Boots		
	o Helmet		
	o Goggles		
	 Goggles 		

Drill <u>Two</u> Basic WET hose drill:

Drill <u>Two</u>	Aim of drill:		
Basic WET • The aim of this drill is to ensure members can safely		nbers can safely and correctly:	
hose drill:	o shipping a standpipe;		
	o bowling hose;		
	 connecting hose to a standp 	pipe and branch; and	
	 the correct use of hand signs 	als and use of Benelec radios.	
	Demonstrate:		
	 Ship a standpipe ensuring the hydr 	ant pit is checked for serviceability	
	and cleanliness (i.e. free from spide	ers, snakes or ants' nests etc)	
	Bowl and roll a 38mm hose		
	Connect 1 x length of 38mm hose to 1 to	to the standpipe and connect two	
	hoses together		
	• Connect a branch to the 38mm ha	ose (hose should not be charged/on)	
	 Use correct hand signals – water or 	n/off	
	Use Benelec radios where appropri	iate and using C.A.N format	
	Turn water on (WET), ensuring branch is closed		
	Open branch and direct water stre	eam in a controlled manner	
	Make up equipment		
Practical resources:	CFU trailer:	• Stand pipe	
	1x 38mm branch and hose	• 5x Benelec Radios	
	• 2 x 38mm hose	CFU training sign	
Safety	Define exclusion zones		
Considerations:	Public traffic		
	Clear communication to members	 visual or through use of radio 	
	Safety Officer (usually Team leader	unless otherwise designated)	
	If member is uncomfortable with any part of the exercise, they should		
	advise the Team leader		
PPE/PPC for	• CFU issued:		
members:	CFU Tunic and pants		
	o Helmets		
	Gloves		
	o Boots		
	o Goggles		

Drill Three Breaching and damaged hose replacement

Drill Three Breaching and damaged hose replacement:

Aim of drill:

- The aim of this drill is to ensure all members are familiar with the process of setting up a breach on a standpipe and be able to run **2** x lines of hose from a single standpipe.
- All members should be aware of how to replace a damaged hose during an incident.

Demonstrate:

- Ship a standpipe
- Connect a 38mm gated breach to the standpipe
- Bowl and roll 4 x 38mm hose
- Connect 2 x lines of hose to each breach and connect a branch to each connected hose (hose should not be charged/on)
- Demonstrate correct hand signals water on/off
- Use Benelec radios for communication where appropriate
- Turn water on (WET), ensuring branch is closed
- Open branch and direct water stream in a controlled manner
- Team leader to nominate a line of hose to replace
- One nominated member to bowl new length of hose parallel to damaged hose
- Standpipe operator to shut off water to the affected line at the breach
- Members on affected line to leave branch open to drain water,
 disconnect damaged line and replace with new line of hose.

(An overhand knot should be tied in the damaged length and reported to CFU coordination team)

- Close branch
- Water on Standpipe operator to reinstate water supply on breach
- Make up equipment

(NOTE: This drill can be performed with one line of hose with the gated breach isolated on the unused side if membership attendance is low)

Practical resources:

CFU trailer:

- 1 2 x 38mm branch
- 3 6 x 38mm hose

Standpipe

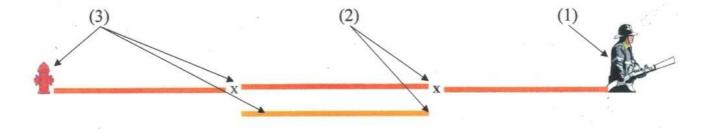
- Gated breach (as
- required

• 5x Benelec Radio

- CFU training sign
- Traffic cones

Safety	Define exclusion zones		
Considerations:	• Public traffic		
	Clear communication to members – visual or through use of radio		
	Safety Officer (usually Team leader unless otherwise designated)		
	If member is uncomfortable with any part of the exercise, they		
	should advise the Team leader		
PPE/PPC for	• CFU issued:	o Gloves	
members:	 CFU Tunic and pants 	o Boots	
	o Helmets	Goggles	

- No 3- Run out a new length parallel to the damaged length
- When order 'Water Off' is given, No 3 shut off supply, No 2 and 3 will disconnect the damaged length and reconnect new length.
- When order "Water On" is given, No 3 reinstate supply and No 2 assists on branch.
- · An overhand knot should be tied in the damaged length.



Drill Four Static water supply pumping:

Drill Four	Aim of drill:			
Static water		osure all members are familia	ar with the process of	
supply	The aim of this drill is to ensure all members are familiar with the process of obtaining water from a static water supply (e.g. a pool or domestic water tank)			
pumping:	Demonstrate:			
		ents of CELL netrol numb and	Loarry out checks	
	 Identify various components of CFU petrol pump and carry out checks Fill pump with a bucket of water for priming 			
			static water supply	
	 Set-up pump for suction pumping at an appropriate static water supply Connect 2 x lengths of 38mm suction hose together, attaching strainer at experiments. 			
	hose to be immersed in water supply			
	Connect suction hoses to			
		nm hose to pump delivery (f	old hase over nump so	
	water does not run into he		old flose over pomp so	
	Connect branch to 38mr	-		
	Use correct hand signals -			
			N format	
		dios where appropriate and using C.A.N format ch operator is ready before engaging the pump		
	• Engage pump (WET), ens			
	Shut down pump and drawn pump a	-		
	Make up equipment			
Practical	CFU trailer:	CFU petrol pump	• 5x Benelec Radio	
resources:	• 1x 38mm branch and	Bucket of water	CFU training sign	
	hose	• 2 x 38mm hose		
Safety	Define exclusion zones	_		
Considerations:	Public traffic			
		members – visual or through	use of radio	
	 Safety Officer (usually Team leader unless otherwise designated) If member is uncomfortable with any part of the exercise, they should advise the 			
	Team leader	, , ,	,	
PPE/PPC for	• CFU issued:			
members:	 CFU Tunic and pant 	ts		
	o Helmets			
	o Gloves			
	o Boots			
	Goggles			

Drill <u>Five</u> Team Leaders Communications with Comcen:

are familiar with the
F&R Incident controllers
est monitoring Ops 5
(see team leader
orting procedure.

Communications Drills

Situation Reports

On arrival at your chosen/designated location, the team leader should provide an initial situation report (sitrep) to COMCEN in order to provide COMCEN and other attending units with a "picture" of the incident itself.

A Sitrep should include the following:

- Identify your unit number (e.g. CFU01),
- · How many members of your unit are present,
- Where you are located,
- What you see; and
- What are you tasking your team to do.

NOTE: Only identify your name once. Use your CFU number for all ongoing communication with COMCEN

For example:

- > CFU01: COMCEN this is CFU01, SITREP
- COMCEN: CFU01 this is COMCEN, pass your **SITREP**
- ➤ CFU01: COMCEN this is CFU01, we have 5 members of CFU01 activated and are on scene at 123 Smiths Street, Chapman. We have a small grass fire behind 123 Smiths Street and are deploying two teams of two along both sides of 123 Smiths Street to extinguish the grass fire.
- COMCEN: Received CFU01, you have 5 members of CFU01 activated and are on scene at 123 Smiths Street, Chapman. You have a small grass fire behind 123 Smiths Street and are deploying two teams of two along both sides of 123 Smiths Street to extinguish the grass fire.

NOTE: Once you have completed a training or operational activity, the Team Leader is to inform COMCEN using the Harris Radio

For example:

- > CFU01: COMCEN this is CFU01, we have completed our training exercise and are making up equipment.
- COMCEN: CFU01 this is COMCEN, you have completed our training exercise and are making up equipment – COMC CLEAR

Conditions, Actions, Needs (CAN) Reports

After the **situation report** on arrival, all other status reports, including an emergency communication, follow the **Conditions, Actions, Needs** format.

The *Team leader* provides CAN reports when:

- When a strategic objective has been met or the plan/activities change.
- · When further assistance is required.
- When there is an emergency e.g. a CFU member is injured, missing or cannot be accounted for.

CFU members or Sector leaders provide CAN reports regarding their sector to the Team leader as requested, or when:

- A new critical factor is discovered.
- · A previous task is complete, and the unit is ready for re-tasking.
- If, for some reason, the task allocated cannot be completed.

CAN Reporting

CAN reporting keeps things simple and it delivers the team leader the information needed to keep the strategy and plan current.

C.A.N REPORTS

CONDITIONS (What you see)

ACTIONS (What you are doing/going to do)

NEEDS (What resources do you need – e.g. Need more hose)

Drill One Basic Hand Signals:

Aim of drill: Drill **One** Water on **Basic Hand** • To demonstrate the use of Signals: hand signals for communication. Demonstrate: • Ship a standpipe ensuring hydrant pit is clean • Bowl 2 x lengths of 38mm hose • Connect hoses together. Water off • Connect one end to the standpipe and a branch to the other end • Use correct HAND SIGNALS water on/off. • Make up equipment Practical **CFU trailer:** • 1 x standpipe • CFU training sign resources: • 1 x branch • Traffic cones • 2 x length 38mm Safety • Define exclusion zones **Considerations:** • Public traffic • Clear communication to members – visual or through use of radio • Safety Officer (usually **Team leader** unless otherwise designated) • If member is uncomfortable with any part of the exercise, they should advise the Team leader PPE/PPC for • CFU issued: members: o CFU Tunic and pants Helmets Gloves **Boots** o Goggles

Drill <u>Two</u> Radio Check with COMCEN:

Aim of drill: Drill Iwo Radio • To demonstrate the process for establishing communications with Check with COMCEN (RADIO CHECK). **COMCEN:** Demonstrate: • Remove HARRIS radio from CFU trailer • Turn radio on and check battery strength • If battery does not have enough charge, proceed to local fire station to replace battery. (Take CFU ID card when changing battery) • Select correct radio talk group (Position 1) which is connected to ACTF&R OPS 5 • Activate press to talk (PTT) button and repeat the following: • COMCEN this is CFU (unit number) • COMCEN will reply acknowledging your message by repeating your callsign. If COMCEN do not reply after 30 seconds, either repeat the message or ring COMCEN (62004104) and advise them your radio message was not acknowledged. When COMCEN acknowledge, relay the following message: • COMCEN, THIS IS CFU (unit number) requesting radio check, how do you receive? • COMCEN will reply advising you how they received your radio message, you will then reply; COMCEN, CFU (unit number) received, reading you 5 by 5 (# out of 5 for clarity), CFU (unit number) out. **Practical** resources: • CFU Harris Radio PPE/PPC for members: Not applicable

Drill <u>Three</u> General Emergency drill with COMCEN:

Drill Three	Aim of drill:	
General	To demonstrate that emergency radio communications can be	
Emergency	established with COMCEN (RADIO CHECK).	
drill with	Demonstrate:	
COMCEN:	Remove handheld HARRIS radio from CFU trailer	
	Turn radio on and check battery strength	
	If battery does not have enough charge, proceed to local fire	
	station to replace battery. Take CFU ID card when changing	
	battery	
	Select correct radio channel position 1 (ACTF&R OPS 5).	
	Activate press to talk (PTT) button and repeat the following	
	COMCEN this is CFU (unit number) "FOR DRILL PURPOSES ONLY	
	RED RED"	
	COMCEN will reply acknowledging your request to send a red	
	message	
	If COMCEN do not reply, repeat the message	
	In the event of an actual fire or emergency ring COMCEN on 000	
	Any of these scenarios can be used for this drill:	
	 COMCEN, CFU (unit number), for drill purposes only, we require urgent assistance at (add detail) 	
	COMCEN will reply advising you they received your radio	
	message, and may request further details	
	COMCEN, CFU (unit number), for drill purposes only, we require an ambulance and/or fire appliance at (add address/location).	
	COMCEN will reply advising you they received your radio	
	message, and may request further details	
Practical resources:	CFU Harris Radio	
Safety Considerations	COMCEN MUST be notified before this drill is undertaken. Any radio communications must be prefaced by a comment that this is for drill purposes only	
PPE/PPC for members:	Not applicable	

Drill <u>Four</u> Reporting a fire:

Drill Form	Aim of drill:	
Drill <mark>Four</mark> Reporting a		
fire:	To demonstrate that emergency radio communications can be	
	established with COMCEN.	
	Demonstrate:	
	Remove handheld HARRIS radio from CFU trailer	
	Turn radio on and check battery strength	
	 If battery does not have enough charge, , proceed to local fire station to replace battery. Take CFU ID card when changing battery 	
	Select correct radio channel position 1 (ACTF&R OPS 5).	
	Activate press to talk (PTT) button and repeat the following:	
	COMCEN this is CFU (unit number) Sit rep	
	COMCEN will reply acknowledging your request to send a Sit Rep	
	message	
	If COMCEN do not reply, repeat the message	
	 COMCEN, CFU (unit number), for <u>drill purposes only</u>, there is a fire at 	
	(add address/location)	
	 COMCEN will reply advising you they received your radio message, 	
	and may request further details	
	In the event of an actual fire or emergency ring COMCEN on 000	
Practical resources:	CFU Harris Radio	
Safety Considerations	COMCEN MUST be notified before this drill is undertaken. Any radio communications must be prefaced by a comment that this is for drill purposes only	
PPE/PPC for members:	Not applicable	

Drill <u>Five</u> Internal Unit COMS drill:

Drill <u>Five</u>	Aim of drill:
Internal Unit COMS drill:	To demonstrate that radio communications can be established
COMS driii:	within your unit using Benelec radios.
	Demonstrate:
	Remove Benelec radios from CFU trailer
	Turn radio on and check battery strength
	If battery does not have enough charge, follow procedures to
	change/charge battery
	Nominate a talk around channel
	Ensure all Benelec radios are on the same channel
	Make sure you know the limits of your radios i.e. distance between
	radios (approx. 2km)
	Activate press to talk (PTT) button and communicate between
	radio users
	Note -There are no limits on using Benelec radios apart from public
	decency
	 Try using the Benelec radios for activities like:
	 Try using the Benelec radios for activities like: Requesting water on
	Requesting water on
	Requesting water onRequesting water off
	 Requesting water on Requesting water off
	 Requesting water on Requesting water off Asking for more hose
	 Requesting water on Requesting water off Asking for more hose Advising the team leader that a fire appliance has arrived
	 Requesting water on Requesting water off Asking for more hose Advising the team leader that a fire appliance has arrived Anything that needs to be communicated and can't be done
Practical	 Requesting water on Requesting water off Asking for more hose Advising the team leader that a fire appliance has arrived Anything that needs to be communicated and can't be done
Practical resources:	 Requesting water on Requesting water off Asking for more hose Advising the team leader that a fire appliance has arrived Anything that needs to be communicated and can't be done
resources:	 Requesting water on Requesting water off Asking for more hose Advising the team leader that a fire appliance has arrived Anything that needs to be communicated and can't be done face to face
resources: Safety	 Requesting water on Requesting water off Asking for more hose Advising the team leader that a fire appliance has arrived Anything that needs to be communicated and can't be done face to face • CFU Benelec Radio
resources: Safety Considerations	 Requesting water on Requesting water off Asking for more hose Advising the team leader that a fire appliance has arrived Anything that needs to be communicated and can't be done face to face
resources: Safety Considerations PPE/PPC for	 Requesting water on Requesting water off Asking for more hose Advising the team leader that a fire appliance has arrived Anything that needs to be communicated and can't be done face to face CFU Benelec Radio Not applicable
resources: Safety Considerations	 Requesting water on Requesting water off Asking for more hose Advising the team leader that a fire appliance has arrived Anything that needs to be communicated and can't be done face to face • CFU Benelec Radio

Please go to the <u>ACTF&R CFU website</u> to access a BLANK COPY under the heading "documents"

Training Record

Surname	First name	CFU ID no.			2019	2019-2020 Season		
			September	October	November	December	February	March
			e.g 15/09/2019					
**List all of you n	**List all of you members in these columns.		*Put a tick in these	columns as each me	**Put a tick in these columns as each member attends training			
e.g Smith	John	CFU01xx	^					
Drill activity com	pleted * Tick the d	rills covered	Drill activity completed * Tick the drills covered in the training session	ion				
1. Identify equipment	ment		1					
2. Wet hose drill			^					
3. Breeching & d	3. Breeching & damaged hose replacement	cement	^					
4. Static water supply pumping	pply pumping		^					
5. Communications	suc		`					
Training supervised by ACTFR	sed by ACTFR							
** If you hold mo	** If you hold more than one training activity p	ng activity pe	r month you can ad	per month you can add more columns to the spreadsheet	the spreadsheet			
** Example of ho	w to complete the	spreadsheet	** Example of how to complete the spreadsheet on the next sheet					
		Ī						

Training Record March Roach, Helen:

If ACT Fire & Rescue staff attend the training session please include their names here 2019-2020 Season December ** If you hold more than one training activity per month you can add more columns to the spreadsheet November Tick the drills covered in this training session Insert date in row 3 for each training activity Roach, Helen: Roach, Helen: October e.g 15/09/2019 September CFU ID no. CFU01xx CFU01xx 3. Breeching & damaged hose replacement names and CFU ID no into columns A,B &C Insert CFU Members Roach, Helen: 4. Static water supply pumping Training supervised by ACTFR First name Scott John Drill activity completed 1. Identify equipment 5. Communications 2. Wet hose drill Surname e.g Smith e.g Jones

Pump pre-operational checks:

Pump pre-	Aim of drill:				
operational operational	To ensure that the pump is functioning correctly and is maintained in				
checks:	accordance with operational standards				
	accordance with operational standards				
	Check List:				
	Is there sufficient oil in the pump (ensure the pump is on alevel)				
	surface and the engine is OFF) \Box				
	Remove the oil filler cap and wipe the dipstick clean □				
	• Insert the dipstick into the oil filler neck (do not screw in) $\ \square$				
	Remove dipstick and check level □				
	If the level is low, contact the CFU coordination team for service				
	(email or phone 62078454)				
	Check the air cleaner element □				
	Check fuel tank level. If fuel is low, fill using UNLEADED fuel only □				
	NOTE: THE HONDA ENGINES HAVE AN AUTOMATIC OIL LEVEL CUT-OUT				
	WHICH WILL STOP THE ENGINE OR PREVENT STARTING WHEN THE OIL LEVEL IS				
	LOW.				
Practical	CFU trailer:				
resources:	• Pump				
Safety	Manual lifting with 2 x people for equipment 20kg or over				
Considerations:	• Fuel spill				
	• Oil spill				
	Heat from exhaust and engine housing				
PPE/PPC for	• CFU issued:				
members:	o CFU Tunic and pants				
	o Helmets				
	o Gloves				
	o Boots				
	o Goggles				

PUMP CHEAT SHEET

FUEL TANK - FULL

OIL - FULL

WATER – FULL

CHOKE - ON (ENGINE COLD)

FUEL – ON

MAIN SWITCH - ON

THROTTLE MID WAY

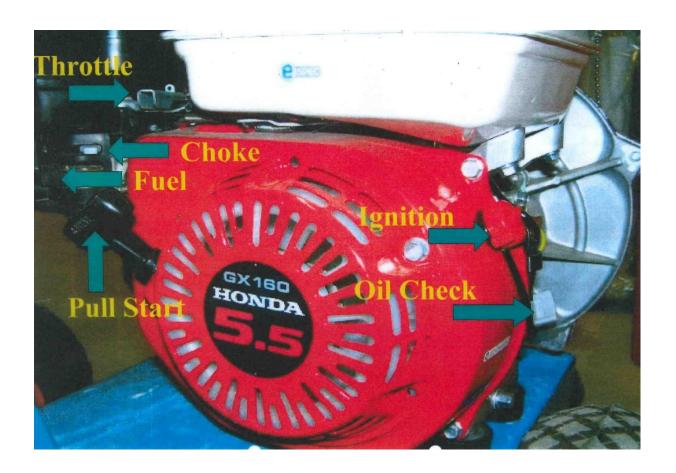
START MOTOR

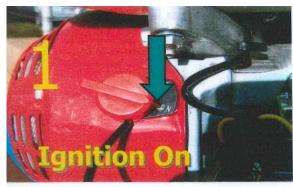
CHOKE – OFF (IF ON)

WATER ON – THROTTLE FULL

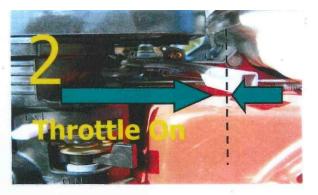
Starting the pump

Starting the	Aim of drill:				
pump	To start pump and operate in normal conditions as well as				
pemp	observing all safety considerations relating to using the pump.				
	Starting the pump:				
	1. Turn the engine switch to the ON position.				
	2. Move the throttle lever halfway open position.				
	3. Move the choke level to the ON position. NOTE: Leave the choke in				
	the OFF position if the engine is warm.				
	4. Move the fuel lever to the ON position.				
	5. Pull the starter grip briskly. As the engine warms up, gradually move				
	the choke lever to the OFF position.				
	6. Position the throttle lever to the desired engine speed.				
	Stopping the pump				
	 Emergency stop, turn the engine switch OFF 				
Dungtion	CFU has the m				
Practical resources:	CFU trailer:				
	• Pump				
Safety	o Pump is to ONLY be moved by 2 people.				
Considerations:	Keep the pump at least 1 meter from buildings and other				
	equipment during operation. Do not place flammable objects close to the engine.				
	 Refuel in a well-ventilated area with the engine OFF 				
	 Avoid inhalation of exhaust gasses. Exhaust gas contains carbon monoxide which is poisonous. 				
	 NEVER run the engine in a confined space. 				
	o The muffler becomes very hot during operation and remains hot for				
	a while after use. To avoid burns or fire hazards, let the engine cool before placing it back into the CFU unit trailer.				
	The pump should always be full of water when operating and				
	should not allowed to run dry for extended periods. Check that there is flow through the pump at all times when running.				
	Overheating pumps Can cause severe burns and injury.				
PPE/PPC for	CFU issued:				
members:	o CFU Tunic and pants				
	o Helmets				
	o Gloves				
	BootsGoggles				











Care and Maintenance of CFU Pump

- 1. Pump should be run at least <u>once a month</u> to stop deterioration of pump and engine seals. Pump should be run for approximately **2 minutes** at various speeds up to ³/₄ throttle with water flowing through the pump.
- 2. Before starting, check the oil and fuel levels (unleaded ONLY).
- 3. Do not pump with sand/dirt contamination, use float on suction hose to avoid this issue
- 4. If draughting water (taking water from a pool or pond), make sure all joins in the hose **are tight**, suction strainer **is fitted** and **submerged** so air does not get into the suction line.
- 5. Pump casing should be filled with water and filler cap replaced **before** starting engine.
- 6. Pump should be sited on firm level ground and tied off to something secure, so pump will not vibrate towards and become submerged in water supply.
- 7. While pumping from a static water supply, ensure that there is always a constant flow of water through the pump to avoid overheating.
- 8. On completion of pumping/draughting the pump casing should be FLUSHED with fresh water (if using salt of chlorinated water supply) and drained to stop water freezing in the pump case and damaging the pump.

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9. Remove drain plug and drain pump on completion.

Pump Location and Priming

LOCATION

- Site the pump as close to the water supply as practical and no more than 7m above the surface of the water.
- The pump must be located on a horizontal surface to function correctly. If allowed to run on a slope, the oil lubrication system may not operate effectively. Subsequently engine failure may occur.
- The pump should be positioned in a well-drained location to avoid possible property damage by leaking hose fittings, spilled engine fuel etc.

PUMP PRIMING

- Fill the pump body with water before starting the engine.
- Remove the flooding cap at the top of the casing and crew it back on tightly after filling the casing with priming water.
- Allow the pump to run until it is drawing water. If the pump fails to prime, it may be due to an air leak in the suction pipe, a blocked pipe or the suction strainer is embedded in mud.

Connecting and Operating Suction hose

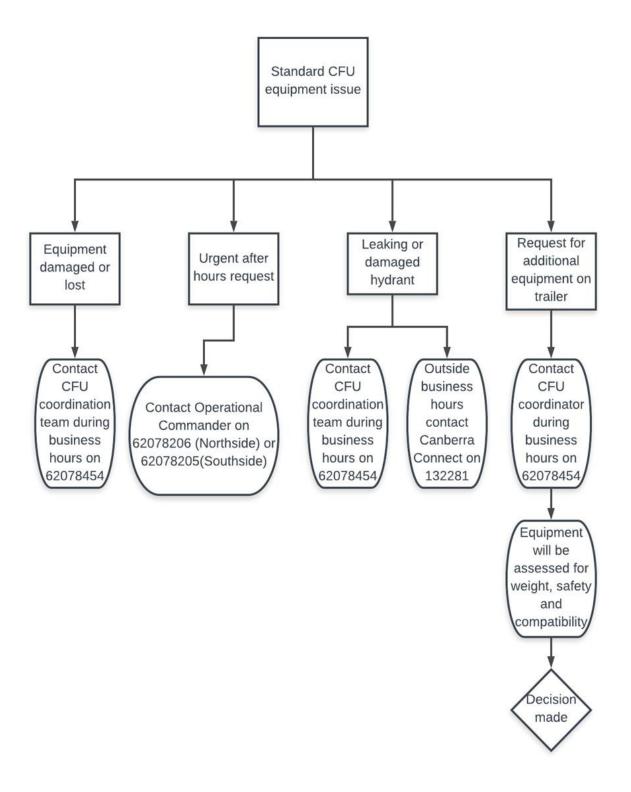
- o Reinforced or non-collapsible hose should be used for the pump suction.
- o The suction strainer must be fitted to the bottom of the suction hose.
- The strainer should be kept out of sand/mud etc. to avoid particles being drawn into the pump and causing damage by abrasion.
- Always locate the pump so that the rise of suction hose from the water is even with no humps or hollows where air may be trapped.
- All hose connections must be airtight for best priming and operation. Check that washers and couplings are in good conditions.
- Vortices (whirlpools) can be formed if the strainer is too close to the water surface.
 This will cause air to enter the suction hose and result in poor water supply or cause damage to the pump.
- o To prevent vortices, ensure the strainer is fully submerged.

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Standard Equipment Procedure

- For damaged/lost or broken equipment: Contact the CFU coordination team during business hours by phone or email and the equipment will be replaced at the earliest possible convenience. Please label broken/damaged equipment clearly for the damaged equipment to be replaced and the fault can be identified.
- For urgent after-hours requests: For urgent or serious equipment malfunctions (e.g. a trailer that is inoperable), after hours, contact the operational Commander on 62078206 (Northside) or 62078205 (Southside) who will make a determination on the request.
- For problems with Hydrants: During business hours contact the CFU coordination team. Outside business hours contact ICON water directly via Canberra Connect on 132281.
- Extra Equipment on CFU trailers: ACTF&R has requested that NO extra
 equipment be placed on CFU trailers without approval from CFU Coordinator.
 There are several issues surrounding members placing their own equipment on
 CFU trailers, including Work Health and Safety issues, maintenance and
 replacement, training, weight limits of trailers and possible legal implications in the
 event of an injury.
- Any extra equipment placed on trailers by members needs to be removed until the
 equipment has been checked and tested by CFU Coordination team and approval
 given.
- If there is extra equipment that members wish to be placed on CFU trailers then
 the equipment can either be brought to the CFU office at ESA training centre, or
 phone/email the CFU Coordinator and it will be retrieved for evaluation.

Standard CFU Equipment Procedure



PPC Care and Maintenance



Community Fire Units



ACT Fire and Rescue Community Fire Units PPC Care Guide

ACTF&R provides CFU Operational Members with Personal Protective Equipment (PPE) to protect them from harm. It is important that this PPE is stored and maintained appropriately to ensure equipment integrity. PPE must be stored in the appropriate kit bag, out of direct sunlight, in a cool, dry and vermin free environment. Uniforms will be issued and fitted to suit the individual. Once issued the garments must not be altered as this can affect the protective properties.

Personal Protective Clothing (PPC)

- The CFU PPC must be checked before and after use, and at regular intervals for:
- Soiling and contamination (wash when required)
- Rips, tears, cuts, holes and fraying
- Damaged, misaligned or missing buttons, zippers or hook and loop fasteners
- Damaged organisational insignia and printing
- Charring, burn holes, melting, discolouration of any layer
- Damaged or missing reflective trim
- Loss of seam integrity and broken or missing stitches
- PPC must be washed according to the manufacturer's instructions on the label.
- Should there be any damage that compromises the integrity of the PPC that cannot be repaired by the user, please email the CFU Coordinator with Name, CFU Number, Unit Number, item for replacement and size.







Laundering

Do's

- Karvin® and Proban® treated articles can be machine washed in any conventional washing machine
- COLD or WARM wash for both whites and colours (temperature not to exceed 60°C)
- Wash program used should be for non-colour fast articles
- Only SYNTHETIC liquid detergents should be used e.g. Bio-zet, Castle, Cold Power, Drive, Dynamo, FAB, OMO, Radiant, Spree or Surf
- For heavily stained or soiled articles a short pre-soak (up to 2 hours) may be useful
- Regular washing will help prevent soiling build up
- Garments may be tumble dried on a warm setting (take care not to over-dry as excessive shrinkage may occur)
- Garments may be dry-cleaned
- Karvin® may be line dried in the shade only, away from direct sunlight exposure
- Garments should be stored in a bag or box, away from direct sunlight exposure

Don'ts

- DON'T wash Karvin® or Proban® garments in traditional soap-based powders e.g. Lux, Velvet, Advance. These soap powders can form flammable deposits, which may adversely affect the flame-retardant performance of the fabric.
- DON'T use hypochlorite-based bleaches. Bleaches such as Domestos, White King (and all supermarket blends) attack the Karvin® and Proban® finish and can lead to the flame retardancy becoming ineffective.

How long will garment remain flame retardant?

- Proban® treated fabrics meet the minimum standards set out in EN531:1995 (50 washes @ 75°C). However, numerous independent tests have shown garments still pass this flammability test after 100 to 150 washes. Conversely, garments can fail flammability tests after just a few washes if they are not laundered correctly.
- Karvin® fabric is an inherent fabric and not a treated product. This means that washing the garment will not degrade the flame-retardant properties of the fabric itself. It is recommended by the manufacture that Karvin® garments are tested every 5 years to ensure that the remains compliant to AS4824/ISO15364.



Goggles

The CFU Goggles must be checked prior to use for:

- Tears and damage to the foam seal
- Whilst goggles are not in use, please store in plastic bag provided to minimise scratches and damage to the lens

Clean visor with warm soapy water after each use.



Helmet

CFU helmets must be stored in a dry area, out of direct sunlight, as per the recommendations of the manufacture.

All CFU helmets must be checked before and after use, and at regular intervals for:

- Cracks, crazing, dents, gouges and abrasions
- Damaged or missing insignia.
- Damaged or missing components of the suspension and chin strap

Should your helmet show any of these checks, please order a replacement helmet.

The helmet should be replaced or refurbished 5 years from date of manufacture. For clarification on manufacture date refer to the stamp inside the helmet, the arrow points to the month and the numbers either side of the arrow line represents the year. All expired helmets will need to be disposed of by the Team Coordinator. Prior to disposal please remove the ACTF&R sticker and mark the helmet "NOT FOR OPERATIONAL USE".







T-shirt, Cap and Kit Bag

The CFU T-shirt, baseball cap and kit bag must be checked prior to use for:

- Rips, tears, cuts, holes and fraying
- Excessive fading and degraded printing
- Loss of seam integrity and broken or missing stitches.

Gloves

GP gloves must be checked before and after use and at regular intervals for:

- Stitching wear or damage
- Holes or tears in the glove and liner
- Cracking or splitting
- Range of movement

Should your gloves show any of these checks, please order a replacement pair.

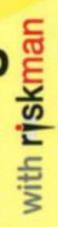
To clean gloves:

- Remove any dried dirt or dust from the gloves using a firm bristled brush.
- Clean the gloves with a cloth dampened with a combination of water and liquid detergent.
- Wipe the gloves dry with a clean, dry cloth.
- Do not soak the gloves in water.
- Allow gloves to dry naturally out of the direct sunlight.



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Work Injury Reporting





or did cause personal harm.

The online Work Injury Reporting system makes it easy to report

ncidents which could



Every report can contribute to workplace safety and will inform the right people to support your ongoing health and wellbeing

Report an incident any time, any place by scanning the QR code with your mobile device.





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The Employee Assistance Program (EAP)

The Employee Assistance Program (EAP) offers free, professional and confidential services to support you and your immediate family members through both personal and work-related issues.

The ACT Public Sector Employees and family members can choose from a range of EAP providers and can contact any of the following.

Assure

1800 808 374

Converge International 1300 687 327

Benestar 1300 360 364

PeopleSense 08 9388 9000

The above providers can provide crisis response services to groups of employees and individuals where there has been a traumatic incident at work, including critical incident intervention and support, consultation and crisis assessment.

ACTF&R members (Including CFU Volunteers) and immediate family and/or members of your household can access the services of EAP free of charge with up to six sessions per issue every financial year.

Further information on counselling and support services for employees and their families can be found at the Employee Assistance Program webpage www.act.gov.au/eap

Other Information

- Lifeline 131114 (24/7) <u>www.lifeline.org.au</u>
- Mensline 1300789978 <u>www.mensline.org.au</u>
- Picking up the Peaces <u>www.pickingupthepeaces.org.au</u>

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MATERIAL SAFETY DATA SHEET

Product Name: Richgro Ant Killa

Page: 1 of 5

This revision issued: January, 2011

Section 1 - Identification of Chemical Product and Company

Richgro Garden Products

Phone: (08) 9455 1323

203 Acourt Road

Fax: (08) 94551297 Free Fax: 1800 671 297

Jandakot, Western Australia 6164

Email: customerservice@richg_ro.com.au

Substance: Bifenthrin is a pyrethroid derived ingredient.

Trade Name: Richaro Ant Killa

Product Use: Garden insecticide for use as described on the product label.

Creation Date: November, 2005 Revision Date: January, 2011

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: Not classified as hazardous according to the criteria of NOHSC Australia.

Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Cod, e

Risk Phrases: R51/53. Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic

environment

Safety Phrases: S22, S24/25 Do not breathe dust. Avoid contact with skin and eyes.

SUSDP Classification: None allocated.

ADG Classification: None allocated. Not a Dangerous Good under the ADG Code,

UN Number: None allocated

E!11ergency Overview

Physical Description & Colour: Brown coloured granules.

Odour: No odour.

Major Health Hazards: Bifenthrin is harmful to mammals when ingested, Large doses may cause incoordination, tremor, salivation, vomiting, diarrhoea, and irritability to sound and touch, LD50, for Bifenthrin is about 54 mg/kg in female rats and 70 mg/kg in male rats. No significant risk factors have been found for this product as Bifenthrin is present only in small concentrations.

Potential Health Effects

See section 11 for Chronic exposure studies.

Inhalation

Short Term Exposure: Long term inhalation of high amounts of any nuisance dust may overload lung clearance mechanism. Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

Skin Contact:

Short Term Exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. In addition product is unlikely to cause any discomfort in normal use.

Eye Contact:

Short Term Exposure: This product may be mildly irritating to eyes, but is unlikely to cause anything more than mild discomfort which should disappear once product is removed.

Short Term Exposure: Significant oral exposure is considered to be unlikely. This product is unlikely to cause any irritation problems in the short or long term,

Carcinogen Status:

NOHSC: No significant ingredient is classified as carcinogenic by NOHSC,

NTP: No significant ingredient is classified as carcinogenic by NTP.

Product Name: Richgro Ant Killa

Page: 2 of 5

This revision issued: January, 2011

IARC: No significant ingredient is classified as carcinogenic by !ARC

Section 3 - Composition/Information on Ingredients

	<u> </u>		5	
Ingredients	CAS No	Cone.%	TWA (mg/n	<u>n³)</u> STEL (<u>mg/m³)</u> .
Bifenthrin	82657-04-3	2g/kg	not set	not set
Other non hazardous ingredients	eacrat	to 100	not eat	not eet

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other <u>non_hazardous</u> ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5. day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit should never be exceeded, even briefly, because of the rapid action of the substance.

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Skin Contact: Gently brush away excess solids. Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

Eye Contact: Quickly and gently brush particles from eyes. No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain_medical advice if irritation Becomes patnfun5r lasts mc/rennan a lew minutes. Take special care if exposecr persorr is wearing contact lenses.

Ingestion: If product is swallowed or gets in mouth, wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Only small quantities of decomposition products are expected from this product at <u>temperatures_normally</u> achieved in a fire.

Fire decomposition products from this product are not expected to be hazardous or harmful.

Extinguishing Media: Not Combustible. Use extinguishing media suited to burning materials.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Does not burn.
Upper Flammability Limit: Does not burn.
Lower Flammability Limit: Does not burn.

Autoignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

Section 6 - Accidental Release Measures

Accidental release: Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise, as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask. Use a P1 mask, designed for use against mechanically generated particles eg silica & asbestos.

Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

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This revision issued: Januar v. 2011

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling_in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: AS/NZS 1715, Protective Gloves: AS 2161, Industrial Clothing: AS2919, Industrial Eye Protection: AS1336 and AS/NZS 1337, Occupational Protective Footwear: AS/NZS2210.

Exposure Limits TWA (mg/m³) STEL (mg/m³)

Exposure limits have not been established by NOHSC for any of the significant ingredients in this product.

The ADI for Bifenthrin is set at 0.01mg/kg/day. The corresponding NOEL is set at 1mg/kg/day. ADI means Acceptable. Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2004.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: No special ventilation requirements are normally necessary for this product. <u>However</u> make sure that the' work environment remains clean and that dusts are <u>minimised</u>.

Eye Protection: Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.

Skin Protection: The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, PVC

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, werecommend that you use a suitable Dust Mask.

Section 9 - Physical and Chemical Properties:

Physical Description & colour: Brown coloured granules.

Odour: No odour.
Boiling Point: Not available.

Freezing/Melting Point: No specific data - solid at normal temperatures.

Volatiles: No specific data -expected to be low at 100°C.

Vapour Pressure: No data.
Vapour Density: No data.
Specific Gravity: No data.

Water Solubility: Bifenthrin: 0.1mg/L. Carrier insoluble.

 pH:
 No data.

 Volatility:
 No data.

 Odour Threshold:
 No data.

 Evaporation Rate:
 No data.

 Coeff Oil/water Distribution:
 No data.

Autoignition temp: Not applicable - does not burn.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: strong acids, strong bases, strong oxidising agents.

Fire Decomposition: Only small quantities of decomposition products are expected from this products at temperatures normally achieved in a fire: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke, Hydrogen chloride gas, other compounds of chlorine, Hydrogen fluoride gas and other compounds of fluorine,

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water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Toxicity: <u>Bifenthrin is harmful to mammals when ingested.</u> Large doses may cause incoordination, tremor, salivation, vomiting, <u>diarrhoea</u>, and irritability to sound and touch. LD_{50} for Bifenthrin is about 54 mg/kg in female rats and 70 mg/kg in male rats. The LD_{50} for rabbits whose skin is exposed to Bifenthrin is greater than 2,000 mg/kg. Bifenthrin does not sensitize the skin of guinea pigs. Although it does not cause inflammation or irritation on human skin, it can cause a tingling sensation which lasts about 12 hours. It is virtually non-irritating to rabbit eyes. Chronic **Toxicity:** No information Available.

Reproductive Effects: The dose at which no toxic effect of Bifenthrin is observed on the mother (maternal toxicity NOEL) is 1 mg/kg/day for rats and 2.67 mg/kg/day for rabbits. At higher doses, test animals had tremors. The dose at which no toxic effect is observed on development (developmental toxicity NOEL) is 1 mg/kg/day for rats and is greater than 8 mg/kg/day for rabbits.

Teratogenic Effects: Bifenthrin does not demonstrate any teratogenic effects at the highest levels tested (100 ppm, approximately 5.5 mg/kg/day) in a two-generational study in rats.

Mutagenic Effects: Evidence of mutagenic effects from exposure to Bifenthrin are inconclusive. Studies of mouse white blood cells were positive for gene mutation. However, other tests of Bifenthrin's mutagenic effects, including the Ames test and studies in live rat bone marrow cells, were negative.

<u>Carcinogenic Effects</u>: There was no evidence of cancer in a 2-year study of rats who ate as much as 10 mg/kg/day of Bifenthrin. However, an <u>87 week</u> feeding study of mice with doses of 7, 29, 71, and 86 mg/kg showed a significantly higher, dose related trend of increased tumor incidence in the male urinary bladder. The incidence was significantly increased at 86 mg/kg/day. Also, females had higher incidences of lung cancer than the controls at doses of 7 mg/kg and higher. The EPA hasclassified Bifenthrin as a class G carcinogen, apossible human carcinogen.

Organ Toxicity: Pyrethroids are poisons that affect the electrical impulses in nerves, over-stimulating nerve cells causing tremors and eventually causing paralysis.

Fate in Humans and Animals: Bifenthrin is absorbed through intact skin when applied topically. It undergoes similar modes of breakdown within animal systems as other pyrethroid insecticides. In mammals, Bifenthrin is rapidly broken down and promptly excreted. Rats treated with 4 to 5 mg/kg, excreted 70 % in the urine and 20% in the faces within 2 days. After 7 days, the remaining Bifenthrin was found accumulated in tissues with high fat content such as the skin and fat in males and females and the ovaries of females. Bifenthrin is less toxic to warm-blooded animals, such as mammals, than to cold-blooded animals.

Section 12 - Ecological Information

Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment. This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

Effects on Birds: Bifenthrin is moderately toxic to many species of birds. The dietary concentration (8 day) at which half of the test animals die, the LC $_{60}$ is 1,280 ppm for mallard ducks and 4,450 ppm for bobwhite quail. The acute oral LD $_{50}$ is 1,800 mg/kg for bobwhite quail and 2,150 mg/kg for mallard ducks. There is concern about possible bioaccumulation in birds.

Effects on Aquatic Organisms: Bifenthrin is very highly toxic to fish, crustaceans and aquatic animals. The LC₅₀ after a 96-hour exposure is 0.00015 mg/l for rainbow trout, 0.00035 mg/l for bluegill, and 0.0016 mg/l for Daphnia. Because of its low water solubility and high affinity for soil, Bifenthrin is not likely to be found in aquatic systems. Effects on other Animals (Nontarget species): Bifenthrin is toxic to bees.

ENVIRONMENTAL FATE

Breakdown of Chemical in Soil & Groundwater: Bifenthrin does not *move* in soils with large amounts of organic matter, clay and silt. It also has a low mobility in sandy soils that are low in organic matter. Bifenthrin is relatively insoluble in water, so there are no concerns about <u>groundwater_contamination</u> through leaching. It's half-life in soil, the amount of time it takes to degrade to half of its original concentration, is 7 days to 8 months depending on the soil type and the amount of air in the soil.

Breakdown of Chemical in Vegetation: Bifenthrin is not absorbed by plant foliage, nor does it translocate in the plant.

Section 13 - Dis eosal Considerations

Disposal: There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. The Hierarchy of Controls seems to be common - the user should investigate: Reduce, Reuse, and Recycle and only if all else fails should disposal be considered. Note that properties of a product may change in use, so that the following suggestions may not always be appropriate. The following may help you in properly addressing this matter for this product. Dispose of empty containers by wrapping in paper, placing in a plastic bag and putting in the garbage bin. The product label may give general advice regarding disposal of small quantities, and how to cleanse containers.

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Section 14 -Transport Information

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredient: Bifenthrin_is mentioned in the SUSDP.

Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail

AICS Australian Inventory of Chemical Substances
CAS Number Chemical Abstracts Service Registry Number

Hazchem Code Emergency action code of numbers and letters that provide information to

emergency services especially firefighters

IARC International Agency for Research on Cancer
NOHSC National Occupational Health and Safety Commission

NOS Not otherwise specified

NTP National Toxicology Program (USA)

R-Phrase Risk Phrase

SUSDP Standard for the Uniform Scheduling of Drugs & Poisons

UN Number United Nations Number

THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This MSDS is prepared in accord with the NOHSC document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]

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CFU TRAILER INVENTORY

Description	Number	Tick
Trailer	1	TICK
Davey pump	1	
Motorola/ Harris Radio	1	
Benelec Radios BL520U	5	
38mm hose -	8	
38mm red diffuser - plastic	2 (0)	
38mm Protec branch	1 (2)	
38mm AWG branch	1 (2)	
Standpipes	2	
65-38mm adapters	2	
Hydrant bar	2	
,	2	
Hydrant scoop Gated breach	2	
Hose spanners	8	
McLeod Tool	2	
P2 face mask (box)	2	
First aid kit	1	
Fuel container	1	
Unleaded fuel label	1	
Knapsack	2	
Safety vest	4	
Hose straps	8	
Dolphin torch 6V	2	
Torch batteries	2	
Traffic cones	8	
Suction hose	2	
Suction strainer	1	
Drinking water (box of 24)	1	
Fuel funnel	1	
Wheel chocks	4	
Equipment folder	1	
Occurrence book	1	
Padlocks	2	
Nitrile gloves	1	
Signs and Stands	2	
Storage tubs	4	
Trailer lock	1	
Bucket	1	
Barrier tape	1	
Team leaders vest	1	
Signal hooter	1	
Sunscreen	1	
Whiteboard markers	1	
Magnetic Incident Action Plan sheet	1	

Please note, new trailers may not have the items highlighted in red