

# POISON

KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

## Firepower® Herbicide



ADAMA  
ESSENTIALS

ACTIVE CONSTITUENT: 520 g/L HALOXYFOP  
present as the HALOXYFOP-R METHYL ESTER

GROUP **A** HERBICIDE

*For the post-emergent control of a wide range of annual and perennial grass weeds in grain legume and oilseed crops, lucerne, medic and clover pasture and seed crops, forestry, bananas, citrus, grapes, pineapples, pome and stone fruit, pyrethrum, tropical fruit and nut crops as specified in the Direction for Use.*

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PACK SIZE: 250 mL, 1 L, 5 L, 10 L, 20 L

**DIRECTIONS FOR USE:**

**RESTRAINTS:** DO NOT apply to weeds which may be stressed (not actively growing) due to prolonged periods of extreme cold, moisture stress (waterlogged or drought affected), poor nutrition or previous herbicide treatment as reduced levels of control may result. DO NOT spray if rain is likely to occur within one hour.

**TABLE 1A. Winter Crops – Canola, Chickpeas, Faba beans, Field peas, Lentils, Linola, Linseed, Lupins, Lucerne, Vetch, Medic and Clover pastures or Seed crops.**

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE (mL/ha)		CRITICAL COMMENTS
		With Uptake <sup>®</sup> or Hotwire <sup>®</sup> Spraying Oil	With a non-ionic wetter	
Annual Ryegrass	2 to 4 leaf	75	100	See GENERAL INSTRUCTIONS, Spraying oils/wetters section. <b>FIELD PEAS AND CANOLA:</b> The oils recommended for use with FIREPOWER are Uptake <sup>®</sup> or Hotwire <sup>®</sup> Spraying Oil. FIREPOWER + Victory <sup>®</sup> 750 SG + Uptake or Hotwire Spraying Oil are compatible and selective to canola. The tank-mix is also compatible with atrazine and selective to triazine tolerant canola. <b>LUPINS AND FIELD PEAS:</b> Mixtures with Bonanza <sup>®</sup> Elite or Simanex <sup>®</sup> may cause crop yellowing and separate applications are recommended. <b>CHICKPEAS, FAB BEANS, LENTILS AND VETCH, LINOLA, LINSEED:</b> Broadleaf herbicides should not be added to FIREPOWER. Apply FIREPOWER and broadleaf herbicides at least a week apart. <b>LUCERNE, CLOVER OR MEDIC PASTURES:</b> If grazed or cut for hay immediately prior to treatment delay application until all grasses have fully expanded leaves. Use 75 mL + spraying oil or 100 mL + wetter/ha. (See GENERAL INSTRUCTIONS, Spraying Oils/wetters section). If Silver Grass ( <i>Vulpia</i> spp.) is present in pasture, Simanex should be tank mixed with the higher rate of FIREPOWER plus a non-ionic wetter.
	Early tillering	100	100	
Barley Grass, Brome Grass, Paradoxa Grass, Volunteer Cereals	2 to 4 leaf	50	75	
	Early tillering	75	100	
Wild Oats (WA, SA, Vic, Tas, Southern and Central NSW)	2 to 4 leaf	37.5	50	
	Early tillering	50	75	
Wild Oats Northern NSW & Qld	2 to 4 leaf	50	75	
	Early tillering	75	100	

**TABLE 1B. Winter Crops growth stage application windows.**

CROP	CROP GROWTH STAGE
Lucerne, Medic and Clover Pastures or Seed Crops	Apply from 2nd trifoliolate leaf onwards. For <i>Erodium</i> spp. spraying, apply from cotyledon crop stage onwards.
Canola	Apply from 2nd leaf to prior to bud formation and stem elongation.
Linola, Linseed	Apply from 5 cm to flowering.
Chickpeas, Faba Beans, Field Peas, Lentils, Lupins, Vetch	Apply from 2nd leaf, 2nd node or 2nd branch to prior to flowering.

**TABLE 2A. Lucerne, Medic and Clover Seed Crops and Pastures. See table 1B for crop stages.**

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE (mL/ha) with Uptake <sup>®</sup> or Hotwire <sup>®</sup> Spraying Oil	CRITICAL COMMENTS
Prairie Grass ( <i>Bromus catharticus</i> )	Up to early tillering	100	See GENERAL INSTRUCTIONS, Spraying oils/wetters section.
Musky or Ferny Leaf Storksbill ( <i>Erodium moschatum</i> ), Common Crowsfoot or Common Storksbill ( <i>Erodium cicutarium</i> )	Up to 6 leaf or 5 cm diameter	50-75*	* Use lower rate when growing conditions and crop or pasture competition are good and when weed populations are below 100 plants/m <sup>2</sup> . Use the higher rate when weed populations are above 100 plants/m <sup>2</sup> or when crop or pasture competition is poor. <b>Note:</b> Storksbill may not be controlled if Simanex <sup>®</sup> or Broadstrike <sup>®</sup> are tank-mixed with FIREPOWER. <b>LUCERNE, CLOVER OR MEDIC PASTURES:</b> If grazed or cut for hay immediately prior to treatment delay application until all grasses have fully expanded leaves. Use 75 mL + spraying oil or 100 mL + wetter/ha. (See GENERAL INSTRUCTIONS, Spraying Oils/wetters section).
Long or Shiny Leaf Storksbill ( <i>E. botrys</i> )	Up to 8 leaf or 5 cm diameter	75-100	If Silver Grass ( <i>Vulpia</i> spp.) is present in pasture, Simanex should be tank mixed with the higher rate of FIREPOWER plus a non-ionic wetter.

**TABLE 2B. Lucerne, Medic and Clover Seed Crops only – not to be used for stockfeed. See Table 1B for crop stages.**

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE (mL/ha) with Uptake <sup>®</sup> or Hotwire <sup>®</sup> Spraying Oil	CRITICAL COMMENTS
Couch Grass (suppression), Rhodes Grass (control)	Tillering seedlings	150 + 150*	* For best suppression of Couch or control of Rhodes Grass, make 2 applications of FIREPOWER 2-4 weeks apart. Time second application to coincide with tillering stage of weeds and just after irrigation or significant rain.
Couch Grass (control), Rhodes Grass (control)	Established stands	400-800	Only treat actively growing weeds which are not moisture stressed. Use these rates for control of Couch and Rhodes Grass.

**TABLE 3A. Summer Crops – Cotton, Cowpea, Lucerne, Mung bean, Navy Beans, Peanuts, Soybeans, Sunflowers.**

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE (mL/ha) with Uptake <sup>®</sup> or Hotwire <sup>®</sup> Spraying Oil	CRITICAL COMMENTS
Australian Millet	2 leaf to tillering up to 15 cm	150	See GENERAL INSTRUCTIONS, Spraying oils/wetters section.
Barnyard Grass	2 to 5 leaf	100	<b>NAVY BEANS, PEANUTS, SOYBEANS:</b> For broadleaf weed control, FIREPOWER at 150 mL/ha plus wetter may be tank mixed with Blazer <sup>®</sup> (except on Navy Beans) or Bentazone (480 g/L).
	Tillering up to 15 cm	150	
Crowsfoot Grass, Green Panic, Johnson Grass (rhizome)	2 leaf to tillering up to 15 cm	150	Tank mixtures may cause transient leaf spotting on the crop but do not normally affect yield.
Johnson Grass (seedling), Liverseed Grass (seedling), Mossman River Grass	2 to 5 leaf	100	DO NOT tank mix broadleaf herbicides with FIREPOWER if grasses have begun tillering or if the grasses are under moisture stress.
	Tillering and up to 15 cm	150	
Summer Grass	2 leaf to tillering up to 15 cm	150	DO NOT add Uptake or Hotwire Spraying Oil when mixing with Blazer or Bentazone (480 g/L).
Volunteer Cereals	2 to 4 leaf	100	DO NOT use Blazer or Bentazone (480 g/L) tank-mixes on cowpea.
	Tillering and up to 15 cm	150	

**TABLE 3B. Summer Crop growth stage application windows**

CROP	CROP GROWTH STAGE
Lucerne	Apply from 2nd trifoliolate leaf onwards.
Cowpea, Mung Beans, Navy Beans, Soybeans	Apply from 2nd leaf to flowering.
Peanuts	Apply from 2nd leaf to pegging.
Cotton	Apply from 2nd leaf to before the onset of flowering.
Sunflowers	Apply from 2nd leaf to head initiation.

**TABLE 4. Annual and Perennial Grasses and *Erodium* spp. in Orchard, Vine and Plantation crops, Forestry and Pyrethrum.**

CROPS	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE (mL/ha) with Uptake or Hotwire Spraying Oil*	CRITICAL COMMENTS
Orchard, vine and plantation crops including: Apples, Avocado, Banana, Blueberry, Citrus, Custard Apple, Feijoa, Grapevines, Guava, Kiwifruit, Litchi (Lychee), Longan, Mango, Nashi, Nut trees, Passionfruit, Paw paw, Pear, Persimmon, Pineapple, Rambutan, Stone Fruit	All growth stages	Perennial Grasses: Couch, Rhodes Grass, Slender Rats Tail Grass	Established stands	400-800	* See GENERAL INSTRUCTIONS, Spraying oils/wetters section. Spray should be directed to the base of the tree or vine avoiding contact with fruit and foliage. <b>Spot spray:</b> Use 25 mL to 50 mL/100 L of water. Use higher rate on late tillering mature grasses. <b>Annual Grasses:</b> Where treated in association with perennial grasses, these annual grasses will be controlled.  <b>Forestry:</b> For annual grasses apply lowest rate to newly emerged grasses, increasing the rate as they develop. <b>Pyrethrum (Tasmania only):</b> For <i>Erodium</i> spp. apply 75-100 mL/ha if the main weed is <i>E. botrys</i> . Use 50-75 mL/ha if either <i>E. cicutarium</i> or <i>E. moschatum</i> are the main weeds.
		Buffel Grass, Green Panic, Johnson Grass, Kikuyu, <i>Paspalum</i> spp., <i>Setaria</i> spp.	Vegetative to early tillering	200	
			Late tillering	400	
		Annual Grasses: Annual Ryegrass, Barley Grass, Barnyard Grass, Brome Grass, Crowsfoot Grass, Lesser Canary Grass, Liverseed Grass, Mossman River Grass, Paradoxa Grass, Summer Grass, Volunteer Cereals, Wild Oats	2 leaf to tillering	200	
Forestry: <i>Pinus radiata</i> , <i>Eucalyptus</i> spp.		Annual grasses as above	Vegetative to tillering	125-250	
Forestry: <i>Pinus pineaster</i>		Barley Grass, Brome Grass, Rope Twitch, Barnyard Grass, <i>Erodium</i> spp., Volunteer Cereals	Vegetative to tillering	100-250	
Pyrethrum					

**TABLE 5. FIREPOWER and Platinum Herbicide tank-mixes – Canola, Chickpeas, Faba beans, Field peas, Lupins, Lentils**

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE (mL/ha)		CRITICAL COMMENTS
		FIREPOWER	Platinum® Herbicide	
<b>FOP/DIM susceptible</b> Annual Ryegrass + Volunteer Barley, Volunteer Wheat, Brome Grass, Wild Oats, Barley Grass, Phalaris	2 to 4 leaf	25	150	See GENERAL INSTRUCTIONS, Spraying oils/wetters section. Use Uptake or Hotwire Spraying Oil at 500 mL/100 L or Hasten at 1 L/100 L. Apply at the same crop growth stage at those in Table 1B Winter Crops. <b>Lentils:</b> Apply up to 7 node-early branching crop growth stage only. <b>Lupins:</b> Not for Qld.
	Early tillering	38	150	
<b>FOP resistant</b> Annual Ryegrass + Volunteer Barley, Volunteer Wheat, Brome Grass, Wild Oats, Barley Grass, Phalaris	2 to 4 leaf	25	200	
	Early tillering	38	250	

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.**

**HARVESTING WITHHOLDING PERIODS:**

**CANOLA, CHICKPEAS, COTTON, COWPEA, FABA BEANS, FIELD PEAS, LENTILS, LINOLA, LINSEED, LUPINS, MUNG BEANS, NAVY BEANS, PEANUTS, SOYBEANS, SUNFLOWERS AND VETCH:** NOT REQUIRED WHEN USED AS DIRECTED.  
**MEDIC AND CLOVER SEED CROPS:** DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.

**STOCK FOOD WITHHOLDING PERIODS:**

**CANOLA, CHICKPEAS, COTTON, COWPEA, FABA BEANS, FIELD PEAS, LENTILS, LINOLA, LINSEED, LUPINS, MUNG BEANS, NAVY BEANS, PEANUTS, SOYBEANS, SUNFLOWERS AND VETCH:** DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 28 DAYS AFTER APPLICATION.  
**LUCERNE:** DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 21 DAYS AFTER APPLICATION.  
**MEDIC AND CLOVER PASTURE:** DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

**COTTON GIN TRASH MUST NOT BE FED TO ANIMALS.**

## GENERAL INSTRUCTIONS

### MIXING

Add water to the spray tank to 10 cm above the level of agitation and ensure the agitation device is working vigorously. (There must be a minimum of 100 L of water in the tank before any pesticide is added.) If tank mixing, firstly, add any soluble liquid formulations (e.g. Victory® Herbicide) and allow agitation for approximately one minute. Then add FIREPOWER at the point where agitation is strongest.

DO NOT add FIREPOWER through a strainer or sieve. Allow further agitation for one minute.

Half fill the spray tank. If using wettable powder or water dispersible granules, or other emulsifiable concentration formulations (e.g. Strike-Out® 500 EC or Le-Mat®), these should be added after the FIREPOWER to the half full spray tank ensuring vigorous agitation.

Finally add Uptake® or Hotwire® Spraying Oil or approved alternate spraying oil/wetter (see section on spraying oils/wetters) and continue filling the tank to the required volume maintaining agitation at all times. Only mix sufficient solution for immediate use. FIREPOWER and any other tank mixes should be applied immediately for best results.

### SPRAYING OILS/WETTERS

**Spraying Oils:** It is essential to add an adjuvant to FIREPOWER. Best results will be achieved with Uptake or Hotwire Spraying Oil at 0.5 L/100 L of spray solution. Alternatively, other oils plus a non-ionic wetter may also be used.

When other crop spraying oils are used, mix at 1.0 L/100 L and add a non-ionic wetter (surfactant) at 200 mL/100 L of spray solution. Use of an oil is not always recommended. See Critical Comments for specific situation recommendations.

**Non-ionic Wetters:** When Uptake/Hotwire or other oils are not used, a 100% concentrate non-ionic wetting agent such as BS-1000® or Wetspray® 1000 at 200 mL/100 L must be used along with the higher rate of FIREPOWER as specified in the Directions for Use.

Where water volumes of less than 50 L/ha are used, DO NOT use less than 250 mL/ha of Uptake or Hotwire or 500 mL/ha for oils other than Uptake or Hotwire or less than 100 mL/ha of wetter.

### CANOLA, LUCERNE, MEDIC AND CLOVER PASTURES AND SEED CROPS

When tank mixing FIREPOWER with Victory® herbicides (canola only) or Broadstrike® (lucerne, clover and medics), use Uptake or Hotwire Spraying Oil with the lower rates of FIREPOWER or a wetting agent with the higher rates of FIREPOWER unless otherwise specified.

When mixing FIREPOWER with other broadleaf herbicides on these crops, DO NOT use an oil use a wetter instead.

### FIELD PEAS AND CANOLA

The oil recommended is Uptake or Hotwire Spraying Oil. Hasten® is also recommended for use with tank-mixtures of FIREPOWER and Platinum® Herbicide. For canola, FIREPOWER + Victory® 750 SG + Uptake or Hotwire Spraying Oil are compatible and selective to canola. This tank-mixture is also compatible with Farnozine® or Simanex® and selective to triazine tolerant canola.

### NAVY BEANS, PEANUTS, SOYBEANS

When mixing with Blazer® or Bentazone (480 g/L).

DO NOT add spraying oil to these mixtures.

DO NOT use these tank-mixes on cowpea.

### COMPATIBILITY

**Ground use only:** FIREPOWER can be tank mixed with:

**Insecticides:** dimethoate, endosulfan, Strike-Out® 500 EC, omethoate.

**Herbicides:** Farnozine, Bentazone (480 g/L), Blazer®, Broadstrike® Herbicide, Victory® Herbicide, Victory® 750 SG Herbicide, MCPA ester (LVE) – DO NOT exceed 700 mL/ha of MCPA LVE, Cameo®, Platinum® Herbicide, Simanex®, Flagship® 200 Herbicide.

**Fungicides:** FARMOZ Mancozeb 750 DF, Dithane DF®, Dithane Rainshield®.

**Trace elements:** magnesium sulphate, zinc sulphate.

FIREPOWER is NOT compatible with 2,4-D or MCPA as sodium or amine salts.

**Aerial use:** No product other than a recommended crop oil or wetter should be mixed with FIREPOWER when applied by air except for addition of Victory Herbicide for use in forestry and Victory 750 SG Herbicide for use in canola only.

### APPLICATION

Apply FIREPOWER in sufficient water to obtain good coverage. It should be applied by an accurately calibrated ground rig or aircraft droplets with a VMD of 200-300 microns. The following spray volumes are recommended.

**Ground Application:** 50-150 L/ha

**Aerial Application:** 30 L/ha minimum

Use higher water volumes in orchards and in dense crops where the weeds may be shielded by the crop canopy.

## CLEANING SPRAY EQUIPMENT

If broadleaf herbicides, particularly; sulfonyleureas, have been used in the spray equipment at any time prior to FIREPOWER, particular care should be taken to follow the directions on the relevant broadleaf herbicide label for equipment cleaning, or damage to susceptible crops may occur. After using FIREPOWER, empty the tank completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean any filters in the tank, pump, line and nozzles.

**To Rinse:** After cleaning the tank as above, quarter fill the tank with clean water and circulate through the pump, lines, hoses and nozzles. Drain and repeat the rinsing procedure twice.

**To Decontaminate:** Before spraying cereals, maize, sorghum or other sensitive crops, wash the tank and rinse the system as above. Then quarter fill the tank and add an alkali detergent (eg. Surf®, Cold Water Surf Concentrate®, DynamoMatic Concentrate®, Omo® or Drive®) at 500 mL/100 L of water or the powder equivalent at 500 g/100 L of water, and circulate throughout the system for at least fifteen minutes. Drain the whole system. Remove filters and nozzles and clean them separately. Finally flush the system with clean water and allow to drain. Chlorine based cleaners are not recommended.

**Rinse water should be discharged onto a designated disposal area, or if this is unavailable, onto unused land away from desirable plants and water sources.**

### RESISTANT WEEDS WARNING

FIREPOWER® Herbicide is a member of 

GROUP	<b>A</b>	HERBICIDE
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 the aryloxyphenoxy propionate group of herbicides. FIREPOWER has the acetyl CoA carboxylase inhibitor mode of action. For weed resistance management FIREPOWER is a Group A Herbicide. Some naturally occurring weed biotypes resistant to FIREPOWER and other Group A herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by FIREPOWER or Group A herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Adama Australia Pty. Ltd. accepts no liability for any losses that may result from the failure of FIREPOWER to control resistant weeds.

Strategies to minimise the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant, local Department of Agriculture, or local Adama representative.

### PROTECTION OF CROPS, NATIVES AND OTHER NON-TARGET PLANTS

FIREPOWER damages cereals and grasses. DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures. Cereal crops or grasses planted with twelve weeks of application may be damaged by the residual effects of FIREPOWER, particularly on light and red soils.

### PROTECTION OF LIVESTOCK

DO NOT graze or cut treated crops for stock food except as specified under withholding periods.

### PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

FIREPOWER is toxic to fish. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

### STORAGE AND DISPOSAL

**250 mL, 1L:** Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT store near feedstuffs, fertilizers or seeds. Rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Dispose of at a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

**5L, 10L, 20L:** Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT store near feedstuffs, fertilizers or seeds. Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point (contact *drumMuster* Collection agency or Local Council for collection sites). If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulation. DO NOT burn empty containers or product.

### **SMALL SPILL MANAGEMENT**

Wear protective equipment (see SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, cat litter or clay granules to the spill. When absorption is complete, sweep up material and contain in a refuse vessel for disposal (see STORAGE AND DISPOSAL section). If necessary wash the spill area with an alkali detergent and water and absorb this wash liquid for disposal as described above.

### **SAFETY DIRECTIONS**

Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. When preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves, face shield or goggles. After each day's use wash gloves, face shield or goggles and contaminated clothing. Wash hands after use.

### **FIRST AID**

If poisoning occurs call for a doctor or Poisons Information Centre. Phone Australia 13 11 26. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

### **MATERIAL SAFETY DATA SHEET**

Additional information is listed in the material safety data sheet (MSDS). A material safety data sheet for FIREPOWER is available from Adama on request. Call Customer Service on (02) 9431 7800.

**CONDITIONS OF SALE:** The use of FIREPOWER® Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Adama Australia Pty. Ltd., regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Adama Australia Pty. Ltd. accepts no responsibility for any consequence whatsoever resulting from the use of this product.

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### **NOT A DANGEROUS GOOD ACCORDING TO THE AUSTRALIAN DANGEROUS GOODS (ADG) CODE.**

**Adama Australia Pty. Ltd.** ABN 55 050 328 973

Suite 1, Level 4, Building B,

207 Pacific Highway

St Leonards NSW 2065 Australia

Tel: (02) 9431 7800 Fax: (02) 9431 7700

APVMA Approval No: 64697/58239

Batch No.

Date of Manufacture