CAUTION

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

TITAN

CLOPYRALID 300
HERBICIDE

ACTIVE CONSTITUENT: 300g/L CLOPYRALID present as the TRIISOPROPANOLAMINE SALT

GROUP **4** HERBICIDE



For the control of a wide range of broadleaf weeds in Wheat, Barley, Triticale, Oats, Pastures, Canola, fallow land, forests and industrial situations as specified in the Directions For Use table.

APVMA Approval No.: 62485/115104

Pack Size: 5L; 10L: 20L; 110L

TITAN AG
CROP PROTECTION

TITAN AG Pty Ltd | ABN 57 122 081 574
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SL Formulation Type
Soluble Liquid Concentrate

IN A TRANSPORT EMERGENCY
• DIAL 000 • POLICE OR FIRE BRIGADE

9 3

3082
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains clopyralid)
PG III Hazchem •3Z

DIRECTIONS FOR USE

It is essential to select a rate appropriate to weed size. Best results will be obtained when weeds are actively growing at treatment.

Restraints:

DO NOT apply to weeds which may be stressed (not actively growing) due to prolonged periods of extreme heat or cold, moisture stress (water-logged or drought affected) or previous herbicide treatment as reduced levels of control may result.

DO NOT sow susceptible crops (see PROTECTION OF CROPS) for nine months following an application up to 300mL/ha or for twelve months following an application in excess of 300mL/ha and up to 500mL/ha. Field peas should not be sown the season following an application of 500mL/ha.

Where rates in excess of 500mL/ha have been used, susceptible crops including field peas should not be sown for at least two years.

DO NOT spray if rain is likely within 3 hours.

CROP	CROP STAGE	WEED	WEED STAGE	STATE	RATE/ha	CRITICAL COMMENTS
Barley, Oats, Triticale, Wheat	Pre-sowing	Capeweed	Up to 8 leaf and maximum 10cm diameter	WA only	150mL plus knockdown herbicide	**Pre-sowing:** This rate should only be used in tank mixture with formulations of paraquat/diquat or glyphosate.
	Post-sowing Pre-emergence through to 3 leaf				150mL plus Diuron at 300mL/ha	**Post-sowing Pre-emergent to 3-leaf:** This rate should only be used in tank mixture with Diuron for control of transplants. Refer to Diuron label for specific rates.
	Early post-emergence (2 leaf to jointing)		Cotyledons to 6 leaf and maximum 5cm diameter		150mL	**Early Post-emergent:** Weeds should be growing actively and not larger than 5cm diameter.
	4-5 leaf onwards	Capeweed, Soldier Thistle	Up to 10cm diameter (4-8 leaf)	NSW, ACT, VIC, TAS, SA, WA only	300mL	Weeds should be young and actively growing. Weeds will become stunted and not be competitive soon after application although final results may not show for some weeks. Faba beans and lupins will only be suppressed. Use 75mL/ha rate only in combination with MCPA LVE.
		Volunteer Chickpeas, Lentils and Sunflower	Up to 6 leaf		250mL	
		Volunteer Faba Beans and Lupins	Up to 4 leaf			
		Volunteer Field Peas	Maximum 10cm high or 6 nodes		150mL	
					75mL plus 700mL/ha MCPA LVE	
		Volunteer Medics and seedling Lucerne	Up to 8 leaf		150mL	
		Volunteer Sub-clover	Up to 6 leaf			
		Volunteer Vetch	Runners up to 10cm maximum 16 leaf		100mL	
					75mL plus 700mL/ha MCPA LVE	
		Prickly Lettuce	4-6 leaf and maximum 8cm diameter		150mL plus 700mL/ha MCPA LVE	
		Thistles including: Nodding, Saffron, Scotch, Slender, Spear, Stemless, Variegated	Rosettes up to 10cm maximum diameter	QLD, NSW, ACT, VIC, TAS, SA, WA only	50mL plus 1.0L/ha MCPA amine (500g/L) or 50mL plus 700mL/ha MCPA LVE	
	5 leaf to late tillering	Skeleton Weed	5-15cm rosettes	NSW, ACT, VIC, SA only	500mL plus 1.0L/ha MCPA amine (500g/L)	Weeds should be a minimum 5cm in diameter and growing actively. This rate will give control until harvest and substantially reduce weed numbers the following season.
Canola	2-8 leaf	Capeweed, Saffron Thistle, Skeleton Weed, Soldier Thistles	Up to 10cm diameter (4-8 leaf)	QLD, NSW, ACT, VIC, TAS, SA, WA only	300mL	Weeds should be young and actively growing. Weeds will become stunted and will not be competitive soon after application although final results may not show for some weeks. Skeleton Weed will only be controlled until harvest. Faba Beans and Lupins will only be suppressed. For the control of annual grasses, TITAN Clopyralid 300 Herbicide may be tank mixed with haloxyfop.
		Volunteer Chickpeas, Lentils, Safflower	Up to 6 leaf		250mL	
		Volunteer Faba Beans and Lupins	Up to 4 leaf		250mL	
		Volunteer Field Peas	Maximum 10cm high or 6 nodes		150mL	
		Volunteer Medics and Seedling Lucerne	Up to 8 leaf		150mL	
		Volunteer Sub-clover	Up to 6 leaf			
		Volunteer Vetch	Runners up to 10cm maximum 16 leaf		100mL	

TITAN AG CROP PROTECTION

CROP	CROP STAGE	WEED	WEED STAGE	STATE	RATE/ha	CRITICAL COMMENTS
Pastures and Fallow Land	Post-emergence	Hardhead Thistle (Creeping Knapweed, Russian Knapweed)	Actively growing plants	QLD, VIC only	**Hand gun:** 500mL/100L of water **Boom spray:** 2 or 4L/ha	**NOTE: DO NOT USE ON LUCERNE. CLOVERS AND MEDICS WILL BE ELIMINATED FOR AT LEAST ONE YEAR.** **Victoria only:** Use the lower rate only on light soils (sand and sandy loam) where a slightly lower degree of control is acceptable. Use the higher rate on all soil types where complete control is required. Addition of a wetting agent at label rates is recommended for treatment of Hardhead Thistle. Spray between September and April on actively growing plants for effective control. Thorough coverage is essential. Apply in 200 to 250L of water per hectare. **Boom spray:** Use the higher rates of TITAN Clopyralid 300 Herbicide plus MCPA on multi-crowned plants or rosettes larger than 30cm in diameter. Spraying may be done at any time during active growth, usually in early winter or spring. Avoid spraying during the dormant winter period or at any time when thistles are not actively growing. DO NOT spray flowering thistles. **Pre-Spray Management:** The pasture should be slightly grazed prior to spraying to reduce clover and grass cover and expose the smaller thistles to the spray. The grazed pasture should be left for 7 days to allow thistles to freshen prior to treatment. **Post-Treatment Management:** Response of thistles to treatment with TITAN Clopyralid 300 Herbicide plus MCPA mixture will be slow compared to the standard treatments with 2,4-D or MCPA. If possible delay grazing of sprayed thistles for 14 days after treatment. **Clover Damage:** TITAN Clopyralid 300 Herbicide plus MCPA mixture can be very damaging to Subterranean Clover. The lower rate is no more damaging than label rates of 2,4-D or MCPA. The higher rate of TITAN Clopyralid 300 Herbicide plus MCPA mixture will reduce the clover component of the pasture for about 2 months. Clover recovery will be quicker during periods of active growth. **Hand gun (Spot spray):** Treat from rosette stage to early flowering. Thorough spraying is necessary. **Drench gun:** Apply 10mL to rosette crown. To multi-crown plants, apply 10mL to each crown.
		Thistles including: Nodding, Variegated, Scotch, Spear, Slender, Saffron	Rosette stage prior to stem elongation	QLD, NSW, ACT, VIC, TAS, SA only	50 or 70mL/ha plus 1-1.5L MCPA Amine (500g/L) **Drench gun:** 50mL/1L of water	
	Post-emergence	Nodding Thistle	Rosettes up to 20cm diameter	NSW, ACT only	100mL	Apply the spray from September to October. Apply by boom spray only. DO NOT apply to thistles over 20cm in diameter. When thistles are over 20cm in diameter use TITAN Clopyralid 300 Herbicide plus MCPA (as described above). **Clover Damage:** Damage to White Clover will be no greater than damage with MCPA alone and less than damage from TITAN Clopyralid 300 Herbicide plus MCPA mixtures. Damage to sub-clover may be greater than with MCPA or 2,4-D alone. DO NOT use for spot treatment.

CROP	CROP STAGE	WEED	WEED STAGE	STATE	RATE/ha	CRITICAL COMMENTS
Pastures and Fallow Land *– continued*	Post-emergence	Californian Thistle	From early buds to flowering (December to February)	VIC, TAS only	**Hand gun:** 250mL/100L water **Boom spray:** 2L/ha	Addition of a wetting agent at label rates is recommended. Retreatment of regrowth in the year following treatment will usually be necessary to achieve a high level of control. **Note:** Clovers and Medics will be eliminated for at least one year.
Pasture, Forests, Rights-of-Way, Industrial Situations	Post-emergence	Groundsel Bush	Young seedlings to mature plants	QLD, NSW, ACT only	**Hand gun:** 330 or 500mL/100L of water	Spray foliage when growth is active. Use the lower rate on young seedlings and the higher rate on plants more than 2m tall or when growth is slow.
Pinus radiata plantations	Post-emergence	Silver Wattle	Active growth spring to summer	NSW, ACT, VIC, TAS only	**Hand gun:** 500mL/100L of water **Boom and Aerial spray:** 5L/ha (weeds 30cm to 2m) 7L/ha (weeds 2 to 4m) 8.5L/ha (weeds 4 to 8m)	For effective control apply when bushes are growing actively. Large trees will not show complete necrosis. **Hand gun:** Means high volume NOT low volume knapsack. Spray to give full coverage of leaves and stems. Add organosilicone surfactant at 200mL/100L for optimum results. See General Instructions for handgun spraying. **Boom and Aerial Spraying:** For boom spraying apply in 150 to 200L of water/ha. For aerial treatment apply in a minimum of 50L/ha of water containing 25-50% by volume of anti-evaporant oil such as Ulvapron. Mix TITAN Clopyralid 300 Herbicide and water first and then add Ulvapron. Maintain continuous agitation. Clovers and other legumes will be eliminated for at least one year.
Forests	Post-emergence	Cape Ivy	Any growth stage	VIC, TAS only	**Hand gun:** 3.3L/ha	Apply by hand held weed wiper or CDA at dilutions with water at 1:3. Application may be made at any time of the year provided foliage is dry at the time. Avoid spraying non-target plants.

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

WITHHOLDING PERIODS:

PASTURES and FALLOW LAND: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

CEREALS: DO NOT HARVEST FOR 10 WEEKS AFTER APPLICATION.

CANOLA: DO NOT HARVEST FOR 12 WEEKS AFTER APPLICATION.

CEREALS AND CANOLA: DO NOT GRAZE OR CUT TREATED CEREALS FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

FORESTS except *Pinus radiata* PLANTATIONS: DO NOT GRAZE FOR 7 DAYS AFTER APPLICATION.

***Pinus radiata* PLANTATIONS: DO NOT GRAZE FOR 14 DAYS AFTER APPLICATION.**

TITAN AG CROP PROTECTION

GENERAL INSTRUCTIONS

MIXING

Half fill the spray unit with water and add the required amount of TITAN Clopyralid 300 Herbicide. Add the remaining water with the agitator running. Agitate continuously to ensure thorough mixing before and during application. Only mix sufficient chemical for each day's work.

When using with tank mixtures: Wettable powder or dry flowable formulations should be added to the spray tank first, followed by suspension concentrates (i.e. flowables), then aqueous concentrates (i.e. TITAN Clopyralid 300 Herbicide) and emulsifiable concentrate formulations (eg MCPA LVE).

COMPATIBILITY

TITAN Clopyralid 300 Herbicide is compatible with:
Broadleaf Herbicides: Metsulfuron-methyl, TITAN Fluroxypyr 200 EC, TITAN Bromoxynil 200 Selective Herbicide, TITAN Chlorsulfuron 750 WG Herbicide, TITAN Diuron 900 WG Herbicide, TITAN Glyphosate 450 Herbicide, TITAN MCPA Selective Herbicide, TITAN MCPA 500 LVE Selective Herbicide, TITAN Paraquat 250 Herbicide, TITAN EOS Herbicide, Terbutryn, TITAN Amine 625 Selective Herbicide.

Grass Herbicides in Cereal Crops: TITAN Diclofop-methyl 375 Selective Herbicide for Wild Oat control only.

Grass Herbicides on Broadleaf Crops: TITAN Hermes 520 Herbicide.

APPLICATION

Boom and Aerial spraying Crop and Pastures: Apply TITAN Clopyralid 300 Herbicide in sufficient water to obtain good coverage. It should be applied by an accurately calibrated ground rig or aircraft, delivering 200-300 micron droplets and not less than 50L/ha water volume for boom sprayers and no less than 20L/ha for aerial applications.

Hardhead Thistle: Use a spray volume of 200-250L/ha of water.
Silver Wattle: Use a spray volume of 150-200L/ha of water by ground boom spray and minimum spray volume of 50L/ha by aircraft.
High Volume Hand Gun: Apply the recommended mix to give full coverage of leaves and stems through a No 6-8 tip at 700-1500kPA. Spray volume for effective coverage of dense two metre high silver wattle should be 30-40 litres of spray per 100m² (10m x 10m) of infestation. For larger areas an equivalent would be 3000-4000 litres per infested hectare.

CLEANING SPRAY EQUIPMENT

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

PARTIAL CLEANING (Before spraying other labelled or tolerant crops)

After using TITAN Clopyralid 300 Herbicide, empty the spray unit completely and drain the whole system. Thoroughly wash inside the spray unit using a pressure hose. Quarter fill the tank with clean water and circulate through the pump, lines, hoses and nozzles. Drain and repeat the procedure twice.

COMPLETE CLEANING (Before spraying susceptible crops)

Before spraying sensitive crops with equipment that has been used to apply TITAN Clopyralid 300 Herbicide, wash the tank and rinse the system as above. Then quarter fill the tank again and add an alkaline detergent (eg liquid SURF*, 0M0*, 0MOMATIC*, DRIVE*, at 500mL/100L water or the powder equivalent at 500g/100L water) and circulate throughout the system for at least 15 minutes. Drain the whole system. Remove fillers and nozzles and clean them separately. Finally flush the system with clean water and allow to drain.

RESISTANT WEEDS WARNING

GROUP **4** HERBICIDE

TITAN Clopyralid 300 Herbicide is a member of the pyridines group of herbicides. TITAN Clopyralid 300 Herbicide has the disruptors of plant cell growth mode of action. For weed resistance management, TITAN Clopyralid 300 Herbicide is a Group 4 herbicide. Some naturally occurring weed biotypes resistant to TITAN Clopyralid 300 Herbicide and other Group 4 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 this product or other Group 4 Herbicides.
Since the occurrence of resistant weeds is difficult to detect prior to use, TITAN AG Pty Ltd accepts no liability for any losses that may result from the failure of TITAN Clopyralid 300 Herbicide to control resistant weeds.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions, or from spraying equipment that may cause spray drift onto nearby susceptible plants/crops, cropping lands or pastures.
Compost and Mulches: DO NOT apply TITAN Clopyralid 300 Herbicide to crops or pastures that will be used for the production of compost or mulches or mushroom substrates. Such compost or mulch made from plant material treated with TITAN Clopyralid 300 Herbicide may cause damage to susceptible crops and plants. Susceptible crops and plants include, but are not limited to chickpeas, clover, cotton, faba beans, field peas, fruit trees, lentils, lupins, lucerne, medics, ornamentals, potatoes, safflower, tomatoes, vegetables, grape and kiwifruit vines, vetches and wattles. Field peas, faba beans, lentils and vetches are particularly susceptible and should not be sown the season following an application of TITAN Clopyralid 300 Herbicide at 500mL/ha. Where TITAN Clopyralid 300 Herbicide residue carry over from use rates of less than 500mL/ha is suspected and susceptible crops are to be planted, test the treated area as follows:
Field Bioassay: Where rain allows, plant a small area of the susceptible crop 4 to 6 weeks before desired planting date and take note of any symptoms of injury. If any herbicide symptoms are observed, only plant either canola or a cereal (see recommendation for Nth and Sth Australia below).
Pot Bioassay: Where not practical to do field bioassay, plant a small number of seeds of the susceptible crop into pots containing soil from the treated field. Do this 4 to 6 weeks before desired planting date. If any herbicide symptoms are observed, only plant either canola or a cereal (see recommendation for Nth and Sth Australia below).
Stubble from Treated Crops: Ensure that harvesters effectively spread crop straw and do not leave a heavy 'header trail' after harvest. Burn (if legal in the area), bale and remove, slash or incorporate stubble as soon as practical after harvest and as long as possible before planting next year to allow microbial breakdown of any residues in straw. Heavy stubble loads may carry more residue into the following season. Where heavy stubble burdens and/or non-wetting soils exist and less than recommended rain amount have occurred from application to planting the susceptible crop (see below), only plant winter or summer cereal or canola.
Planting Crops Following Use of TITAN Clopyralid 300 Herbicide in Previous Crop: Planting crops 'dry' without significant rain (see below) in the 'autumn break' increases the risk of injury to susceptible crops. This practice should be avoided, or only plant a winter or irrigated summer cereal crop or canola. In severely dry conditions, where less than 30% of average annual rainfall and/or less than the minimum rain (see below) has fallen between application and planting the next year, only plant winter or irrigated summer cereal or canola.
Plantback Periods for Sth Australian Winter Dominant Rainfall Areas (Sth NSW, VIC, SA, WA)
Required Rainfall: A minimum of 25mm rain event in the post-harvest summer to autumn period, with subsequent extended period of at least 1 week where the top 10cm of the soil stays moist is required to enable breakdown of soil residues. Fastest residue breakdown will occur under good soil moisture and warm conditions, which promote microbial activity. Where significant rain (more than 25mm) has fallen in summer to autumn, with soil wetting for at least 1 week, the following plantback periods apply:

Following Crops	Rate (mL/ha)	Plantback Interval
	Up to 300	9 months
Clover, Chickpeas, Faba Beans, Field Peas, Lentils, Lupins, Medics, Vetch	300 to 500	12 months
	greater than 500	24 months
Barley, Canola, Wheat, Oats	All label rates	1 week

Plantback Period for Nth Australia Summer Dominant Rainfall Areas (Nth NSW, QLD)
Required rainfall before plantback:
If planting susceptible winter crops: at least 100mm rain.
If planting susceptible summer crops: at least 150mm rain.
This rain or irrigation should wet the soil for extended periods (at least 1 week). This is essential for breakdown of soil residues prior to planting susceptible crops.
If planting a cereal or canola crop: at least 50mm of rain or irrigation is required to enable soil wetting for at least 1 week.
Where these requirements have been met the following plantback periods apply:

Following Crops	Plantback Interval when rate up to 75mL/ha used	Plantback Interval when rate of greater than 75 to 300mL/ha used
Chickpeas, Cotton, Soybean, Sunflower	3 months	6 months
Lucerne	9 months	9 months
Maize, Sorghum	1 week	2 weeks
Wheat, Barley, Oats, Canola	1 week	1 week

TITAN AG CROP PROTECTION

Note: Susceptible crops should not be sown for at least 2 years where TITAN Clopyralid 300 Herbicide at more than 300mL/ha has been used in Nth Australia.

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
Low toxicity to fish, birds, honey bees, livestock, earthworms and aquatic organisms. DO NOT contaminate dams, rivers, drains or streams with chemical or used container.

STORAGE AND DISPOSAL
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, fertilisers or seed. Triple 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. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm 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.

110L only: Store in the original sealed Envirodrum in a cool well-ventilated area. DO NOT store for prolonged periods in direct sunlight DO NOT store near feedstuffs, fertilisers or seed. DO NOT tamper with the Micro Matic valve or the security seal. DO NOT contaminate the Envirodrum with water or any foreign matter. After each use of the product, please ensure that the Micro Matic coupler delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the Envirodrum to the point of purchase. The Envirodrum remains the property of TITAN AG Pty Ltd.

SMALL SPILL MANAGEMENT
Wear protective equipment (see SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. Sweep up material for disposal when absorption is completed 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 as above, the wash liquid for disposal.

SAFETY DIRECTIONS
May irritate the eyes and skin. Avoid contact with the eyes and skin. DO NOT inhale spray mist. When preparing the spray, wear elbow-length PVC gloves and face shield. After each day's use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. Alter each day's use, wash gloves, face shield and contaminated clothing.

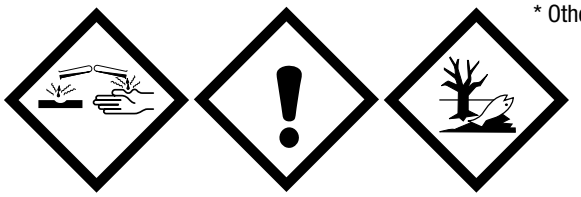
FIRST AID
If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766.

SAFETY DATA SHEET
Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Clopyralid 300 Herbicide is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9999 6655 or visit titanag.com.au

CONDITIONS OF SALE: TITAN AG Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on TITAN AG's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of TITAN AG Pty Ltd has any authority to add to or alter these conditions.

Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: May cause an allergic skin reaction. Causes serious eye damage. Toxic to aquatic life with long lasting effects. Precautionary Statements: Wear protective gloves, protective clothing, eye protection and face protection. Avoid breathing mist/vapours/spray. Avoid release to the environment. Contaminated work clothing should not be allowed out of the workplace. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor/physician/first aider. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Collect spillage. Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

* Other trademarks



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