

Confidential: Proprietary information of Ivorychem Pte Ltd. Not to be disclosed to third parties without prior consent of Ivorychem Pte Ltd

READ THE ENTIRE LABEL BEFORE USING THIS PRODUCT.

USE ONLY IN ACCORDANCE WITH INSTRUCTIONS.

KEEP OUT OF REACH OF CHILDREN



#### INGREDIENTS

Picloram .....16.75%  
2,4 D Amine Salt..... 34.64%

RANGER is an effective specialty water-soluble herbicide against broadleaf annual and perennial weeds, and certain woody species on CRP, rangeland and permanent grass pastures. It contains as its active ingredient, Picloram and 2,4 D Amine Salt.

Herbicidal effects of RANGER occur primarily from uptake by plant foliage and translocation throughout the plant, however, secondary herbicidal activity may occur from soil uptake of picloram. Very small amounts can kill or damage broadleaf plants. To prevent damage to crops and other desirable plants, carefully follow all directions and precautions.

Trade Names Of Other Firms: Trade names for products containing Picloram and 2,4 D Amine Salt include Grazon P+D and Potreron 212.

#### What is RANGER and how does it work?

RANGER is a water-soluble liquid herbicide containing picloram and 2,4-D. Use RANGER in rangeland and permanent grass pastures to selectively control many annual biennial and perennial broadleaf weeds and woody species.

#### Key Benefits of RANGER:

1. Has residual activity control.
2. Allows for more even disbursement during application
3. Highly effective against target weeds

#### PRECAUTIONS

Corrosive. Harmful if swallowed, inhaled or absorbed through skin. Causes irreversible eye damage. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse. Keep children or pets away from treated area until dry.

#### SYMPTOMS OF POISONING

**Eyes:** May cause moderate eye irritation, which may be slow to heal. May cause slight corneal injury.

**Skin:** Prolonged or repeated contact may cause skin irritation. Prolonged skin contact is unlikely to result in absorption in harmful amount.

**Ingestion:** Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause serious injury, even death. exposure may cause central nervous system effects, cardiopulmonary effects and kidney failure. Moderate toxicity if swallowed.

**Inhalation:** Prolonged exposure is not expected to cause adverse effects.

#### MEDICAL TREATMENT

No specific antidote is available. Treatment is symptomatic.

#### FIRST AID

**Skin:** If on skin, remove contaminated clothes. Rinse and then rinse skin immediately with plenty of water and soap for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**Inhalation:** If inhaled, move person for fresh air. If person is not breathing, call for an ambulance, then give artificial respiration, preferably mouth-

to-mouth if possible. Call a poison control centre or doctor for further treatment advice.

**Eyes:** If in eyes, first hold eye open and rinse with plenty of water for 15-20 minutes (remove contact lenses if easily possible). Call poison control center or doctor for treatment advice.

**Ingestion:** If ingested, call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do NOT induce vomiting unless told to do so by poison control center or doctor. Do not give anything to an unconscious person.

#### NOTE TO PHYSICIAN

Probably mucosal damage may contraindicate the use of gastric lavage.

#### PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below.

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, Polyvinyl Chloride (PVC) or Viton
- Shoes plus socks
- Protective eyewear
- For containers over 1 gallon, but less than 5 gallons: Mixers and loaders who do not use a mechanical system (such as probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to other PPE.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

#### DIRECTIONS OF USE

Do not apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Apply RANGER at 3-6 litres per hectare.

Use higher rates in areas with dense weed populations or for longer residual control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the

recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control and may require re-treatment.

**Ground equipment:** Spray drift may be lessened by keeping the spray boom as low as possible and by keeping the operating spray pressures at the manufacturers recommended minimum pressures for the specific nozzle types used (low pressure nozzles are available from spray equipment manufacturers). Do not apply this product with a mistblower. In hand-gun applications, spray drift may be minimized by selecting the minimum pressure that will provide adequate coverage (without forming a mist); by spraying no higher than brush tops.

**Aerial application:** Avoid spray drift at the application site. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outer most operating nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

#### DISPOSAL METHODS

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 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.

#### STORAGE CONDITION

Do not contaminate water, food or feed by storage or disposal. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilizers. Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. If exposed to subfreezing temperatures (below 32° F), the product should be warmed to at least 40° F and agitated thoroughly before using.

Do not reuse container. Triple or preferably pressure rinse containers before disposal in a sanitary landfill, or by other procedures approved by state and local authorities, by burning. If burned, stay out of smoke.

For More Details including effects on environment, email [contact@ivorychem.com](mailto:contact@ivorychem.com) with Subject "RANGER DETAILS"

More Details:

## TOXICOLOGICAL EFFECTS

•

## ECOLOGICAL EFFECTS

### ENVIRONMENTAL FATE

This pesticide is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes by cleaning of equipment or disposal of wastes. Do not allow run-off or spray to contaminate wells, irrigation ditches, or any body of water used for irrigation or domestic purposes. Do not make application when circumstances favor movement from treatment site.

Picloram is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water). These include poorly draining or wet soils with readily flooded areas, areas over-laying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile damage systems that drain to surface water.

Most cases of groundwater contamination

involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

## PHYSICAL PROPERTIES AND GUIDELINES

### Physical Properties:

- **Appearance:**
- **Chemical Name:**
- **CAS Number:**
- **Molecular Weight:**
- **Water Solubility:** Not available
- **Solubility in Other Solvents:** Water
- **Melting Point:** Not Available
- **Vapor Pressure:** Not available
- **Partition Coefficient:** Not Available
- **Adsorption Coefficient:** Not available



IVORYCHEM PTE LIMITED  
15 Beach Road #02-09  
Beach Centre  
Singapore 189677  
Tel: +65 63377765  
Fax: +65 63377730  
[contact@ivorychem.com](mailto:contact@ivorychem.com)  
[www.ivorychem.com](http://www.ivorychem.com)

Company Registration No 200405572W