1. Substance/preparation and manufacturer/supplier identification

**DRIVE XL HERBICIDE**

Use: crop protection product, herbicide

**Manufacturer/supplier:**
BASF Australia Limited (ABN 62 008 437 867)
Level 12, 28 Freshwater Place Southbank
Victoria 3006, AUSTRALIA
Telephone: +61 3 8855-6600
Telefax number: +61 3 8855-6511

**Emergency information:**
BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]
BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

2. Hazard identification

Classification of the substance and mixture:
- Specific target organ toxicity — repeated exposure: Cat. 2
- Hazardous to the aquatic environment - chronic: Cat. 4

Label elements and precautionary statement:

Pictogram:

Signal Word: Warning
Hazard Statement:
May cause damage to organs through prolonged or repeated exposure. May cause long lasting harmful effects to aquatic life.

Precautionary Statements (Prevention):
Do not breathe mist or vapour.

Precautionary Statements (Response):
Get medical advice/attention if you feel unwell.

Precautionary Statements (Disposal):
Dispose of contents/container to hazardous or special waste collection point.

Other hazards which do not result in classification:
See section 12 - Results of PBT and vPvB assessment.
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

herbicide, Soluble concentrate (SL)

Hazardous ingredients

<table>
<thead>
<tr>
<th>Quinclorac</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content (W/W): 15.93 %</td>
</tr>
<tr>
<td>CAS Number: 84087-01-4</td>
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<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethyleneglycol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content (W/W): &lt; 75 %</td>
</tr>
<tr>
<td>CAS Number: 107-21-1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimethylamine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content (W/W): &lt; 5 %</td>
</tr>
<tr>
<td>CAS Number: 124-40-3</td>
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</table>
4. First-Aid Measures

General advice:
Avoid contact with the skin, eyes and clothing. Remove contaminated clothing. If difficulties occur:
Obtain medical attention. Show container, label and/or safety data sheet to physician.

<table>
<thead>
<tr>
<th>Remove contaminated clothing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>If inhaled:</td>
</tr>
<tr>
<td>Keep patient calm, remove to fresh air, seek medical attention.</td>
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<tr>
<td>On skin contact:</td>
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<tr>
<td>Wash thoroughly with soap and water.</td>
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<tr>
<td>On contact with eyes:</td>
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<tr>
<td>Wash affected eyes for at least 15 minutes under running water with eyelids held open.</td>
</tr>
<tr>
<td>On ingestion:</td>
</tr>
<tr>
<td>Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.</td>
</tr>
</tbody>
</table>

Note to physician:
Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
foam, dry powder, carbon dioxide, water spray

Specific hazards:
carbon monoxide, carbon dioxide, nitrogen dioxide, hydrogen chloride, halogenated hydrocarbons, Hydrocarbons
Traces of the substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental Release Measures

Personal precautions:
Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.
Environmental precautions:
Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.
Contain contaminated water/ firefighting water.

Methods for cleaning up or taking up:
Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Handling
No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:
The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage
Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.
Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

Protect from temperatures above: 40 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure controls and personal protection

Components with occupational exposure limits

| ethyleneglycol, 107-21-1; |
CLV 100 mg/m³ (ACGIHTLV), aerosol
Skin Designation (AU NOEL)
The substance can be absorbed through the skin.
TWA value 52 mg/m³ ; 20 ppm (AU NOEL)
 STEL value 104 mg/m³ ; 40 ppm (AU NOEL)
TWA value 10 mg/m³ (AU NOEL)
 STEL value 104 mg/m³ ; 40 ppm (OEL (AU)), vapour
TWA value 52 mg/m³ ; 20 ppm (OEL (AU)), vapour
Skin Designation (OEL (AU)), Particulate
The substance can be absorbed through the skin.
Skin Designation (OEL (AU)), vapour
The substance can be absorbed through the skin.
TWA value 10 mg/m³ (OEL (AU)), Particulate

dimethylamine, 124-40-3;
 STEL value 15 ppm (ACGIHTLV)
TWA value 5 ppm (ACGIHTLV)
TWA value 3.8 mg/m³ ; 2 ppm (AU NOEL)
 STEL value 11 mg/m³ ; 6 ppm (AU NOEL)
TWA value 3.8 mg/m³ ; 2 ppm (OEL (AU))
 STEL value 11 mg/m³ ; 6 ppm (OEL (AU))

Personal protective equipment
Respiratory protection:
Respiratory protection not required.

Hand protection:
Wear chemical resistant protective gloves.

Eye protection:
Eye protection not required.

Body protection:
Standard work clothes and shoes.

General safety and hygiene measures:
Avoid contact with the skin, eyes and clothing. In order to prevent contamination while handling, closed working clothes and working gloves should be used. Wash contaminated clothing before reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Before eating, drinking, or smoking, wash face and hands with soap and water.

9. Physical and Chemical Properties

Form: liquid
Colour: yellow
Odour: characteristic
Odour threshold: Not determined due to potential health hazard by inhalation.

pH value: approx. 7.9 - 9.9
(1 %/(m), 25 °C)
Boiling point: approx. 197.4 °C (1,013 hPa)  
Information applies to the solvent.

Flash point: approx. 111 °C  
Information applies to the solvent.

Evaporation rate: not applicable

Flammability (solid/gas): not applicable

Lower explosion limit: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Upper explosion limit: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Ignition temperature: approx. 398 °C  
Information applies to the solvent.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Explosion hazard: Based on the chemical structure there is no indicating of explosive properties.

Fire promoting properties: Based on its structural properties the product is not classified as oxidizing.

Vapour pressure: approx. 0.123 hPa (25 °C)  
(measured)  
Information applies to the solvent.

Density: approx. 1.13 g/cm³ (20 °C)

Relative vapour density (air): not applicable

Solubility in water: dispersible

Partitioning coefficient n-octanol/water (log Pow): The statements are based on the properties of the individual components.

Information on: quinclorac

Partitioning coefficient n-octanol/water (log Pow): -0.74 (20 °C; pH value: 7)  
(Directive 92/69/EEC, A.8)
10. Stability and Reactivity

Conditions to avoid:
See MSDS section 7 - Handling and storage.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
strong oxidizing agents, strong bases, strong acids

Hazardous reactions:
No hazardous reactions if stored and handled as prescribed/indicated.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Experimental/calculated data:
LD50 rat (oral): > 2,000 mg/kg
No mortality was observed.

LC50 rat (by inhalation): > 5.2 mg/l 4 h
No mortality was observed.

LD50 rat (dermal): > 5,000 mg/kg

Irritation

Assessment of irritating effects:
Not irritating to the skin. Not irritating to the eyes.
Experimental/calculated data:
Skin corrosion/irritation rabbit: (OECD Guideline 404)

Serious eye damage/irritation rabbit: (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:
There is no evidence of a skin-sensitizing potential.

Experimental/calculated data:
modified Buehler test guinea pig:

Germ cell mutagenicity

Assessment of mutagenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Quinclorac
Assessment of teratogenicity:
No indications of a developmental toxic / teratogenic effect were seen in animal studies.

The product contains: quinclorac
May produce an allergic reaction.

Specific target organ toxicity (single exposure):

Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.
Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

**Repeated dose toxicity and Specific target organ toxicity (repeated exposure)**

Assessment of repeated dose toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components.

- Information on: ethyleneglycol
  Assessment of repeated dose toxicity:
The substance may cause damage to the kidney after repeated ingestion. The substance may cause damage to the kidney after repeated skin contact with high doses.

- Information on: dimethylamine
  Assessment of repeated dose toxicity:
The substance may cause damage to the upper respiratory tract after repeated inhalation, as shown in animal studies.

**Aspiration hazard**

The product has not been tested. The statement has been derived from the properties of the individual components.
No aspiration hazard expected.

**Other relevant toxicity information**

Misuse can be harmful to health.

### 12. Ecological Information

**Ecotoxicity**

Assessment of aquatic toxicity:
May cause long lasting harmful effects to aquatic life.
The product has not been tested. The statement has been derived from the properties of the individual components.

- Information on: 3,7-dichloroquinoline-8-carboxylic acid
  Chronic toxicity to fish:
  No observed effect concentration (38 d) 31 mg/l, Pimephales promelas
  -------------------------------

- Information on: 3,7-dichloroquinoline-8-carboxylic acid
  Chronic toxicity to aquatic invertebrates:
  No observed effect concentration (21 d), 110 mg/l, Daphnia magna
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**Mobility**

Assessment transport between environmental compartments:
Trash

Persistence and degradability

Assessment biodegradation and elimination (H2O):
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 3,7-dichloroquinoline-8-carboxylic acid
Assessment transport between environmental compartments:
Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Bioaccumulation potential

Assessment bioaccumulation potential:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: quinclorac
Bioaccumulation potential:
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal Considerations

See product label for disposal and recycling instructions.

Contaminated packaging:
Rinse the container or liner as needed for disposal.
Add rinsate to spray tank.
Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.
Consult the product label for additional details.

14. Transport Information

Domestic transport: Not classified as a dangerous good under transport regulations

Sea transport
15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Schedule 5

Registration status:

AICS, AU released / listed
APVMA Approval 68601

16. Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.