1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: 4 FARMERS 2,4-D LV ESTER 680 SELECTIVE HERBICIDE

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: Agricultural herbicide

Details of Manufacturer or Importer:
4Farmers Australia Pty Ltd
70 McDowell Street
Welshpool WA 6106

Phone Number: +61 8 9356 9446

Emergency telephone number: National Poison Information Centre: 13 11 26

2. HAZARDS IDENTIFICATION

Hazardous Nature:
Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Environment

Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Signal Word: Danger

Hazard Statements
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.
P264 Wash hands thoroughly after handling.

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P270  Do not eat, drink or smoke when using this product.
P272  Contaminated work clothing should not be allowed out of the workplace.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P321  Specific treatment (see on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P330  Rinse mouth.
P331  Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of water.
P391  Collect spillage.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P330  Rinse mouth.
P331  Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of water.
P391  Collect spillage.
P405  Store locked up.
P501  Dispose of contents/container in accordance with local/regional/national regulations.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Hazardous Components:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1928-43-4 2,4-D present as the ethylhexyl ester</td>
<td>Acute Tox. (Oral) 3, H301; Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317</td>
<td>68%</td>
</tr>
<tr>
<td>64742-94-5 Solvent naphtha (petroleum), heavy arom.</td>
<td>Asp. Tox. 1, H304</td>
<td>&lt;30%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:
In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:
In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

Ingestion:
If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:
Skin Contact: May cause an allergic skin reaction.
Eye Contact: May cause eye irritation.
Ingestion: Harmful if swallowed. May be fatal if swallowed and enters airways. Ingestion of large amounts may cause headache, nausea, lethargy, motor weakness and incoordination.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water fog, foam, dry chemical or carbon dioxide.
Specific Hazards Arising from the Chemical:
Hazardous combustion products include oxides of carbon, oxides of nitrogen and hydrogen chloride.
Combustible Liquid Class 2.
Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Special Protective Equipment and Precautions for Fire Fighters:
When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:
Wear approved respiratory protection, chemical resistant gloves, safety glasses, protective clothing and safety
boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate
ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

Environmental Precautions: In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:
Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect
the spilled material and place into a suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling:
Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only
outdoors or in a well-ventilated area.
Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always
wash hands before smoking, eating, drinking or using the toilet. Contaminated work clothing must not be allowed
out of the workplace. Wash contaminated clothing and other protective equipment before storage or re-use.
Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:
Store in a cool, dry and well ventilated area. Keep in original container tightly closed when not in use. Protect from
heat, sparks, open flames and other sources of ignition. Keep away from strong acids, strong bases and strong
oxidising agents.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Exposure Standards:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1928-43-4 2,4-D present as the ethylhexyl ester</td>
</tr>
<tr>
<td>NES</td>
</tr>
<tr>
<td>TWA</td>
</tr>
</tbody>
</table>

Engineering Controls:
Maintain air concentration below occupational exposure standards, providing adequate ventilation.

Respiratory Protection:
Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g.
generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract
irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more
information. 

(Contd. on page 4)
### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Amber</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-Value</td>
<td>3 - 4</td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>No information available</td>
</tr>
<tr>
<td>Initial Boiling Point/Boiling Range</td>
<td>&gt; 200 °C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>150 °C</td>
</tr>
<tr>
<td>Flammability</td>
<td>Combustible Liquid Class 2</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>443 °C</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>No information available</td>
</tr>
<tr>
<td>Upper</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapour Pressure at 25 °C</td>
<td>0.48 mPa</td>
</tr>
<tr>
<td>Relative Density</td>
<td>1.10</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>4.8 (solvent)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Dispersible</td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>No information available</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

**Possibility of Hazardous Reactions:** Hazardous polymerisation will not occur.

**Chemical Stability:**
Stable at ambient temperature and under normal conditions of use. May be unstable at temperatures below 5 °C.

**Conditions to Avoid:** Heat, sparks, open flames and other sources of ignition.

**Incompatible Materials:** Strong acids, strong bases and strong oxidising agents.

**Hazardous Decomposition Products:** Oxides of carbon, oxides of nitrogen and hydrogen chloride.
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11. TOXICOLOGICAL INFORMATION

Toxicity:

<table>
<thead>
<tr>
<th>LD₅₀/LC₅₀ Values Relevant for Classification:</th>
<th>1928-43-4 2,4-D present as the ethylhexyl ester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD₅₀</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD₅₀</td>
</tr>
<tr>
<td>Inhalation</td>
<td>LC₅₀/4 h</td>
</tr>
</tbody>
</table>

Acute Health Effects
Inhalation: No information available
Skin: May cause an allergic skin reaction.
Eye: May cause eye irritation.
Ingestion:
Harmful if swallowed. May be fatal if swallowed and enters airways. Ingestion of large amounts may cause headache, nausea, lethargy, motor weakness and incoordination.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.
Serious Eye Damage / Irritation: Based on classification principles, the classification criteria are not met.
Respiratory or Skin Sensitisation: May cause an allergic skin reaction.
Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.
Carcinogenicity: 2,4-D is classified by IARC as Group 2B - Possibly carcinogenic to humans.
Reproductive Toxicity: Based on classification principles, the classification criteria are not met.
Specific Target Organ Toxicity (STOT) - Single Exposure: Based on classification principles, the classification criteria are not met.
Specific Target Organ Toxicity (STOT) - Repeated Exposure: Based on classification principles, the classification criteria are not met.
Aspiration Hazard: May be fatal if swallowed and enters airways.

Chronic Health Effects:
Repeated or prolonged eye contact may cause eye damage. Repeated or prolonged skin exposure may cause de-fatting of the skin and skin sensitisation. Prolonged skin contact may cause absorption. Absorption may cause damage to the liver and kidneys.

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological information:
The Australian Acceptable Daily Intake (ADI) for 2,4-D for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing Office of Chemical Safety, 'ADI List', June 2014).

12. ECOLOGICAL INFORMATION

Ecotoxicity: Non-toxic to birds or bees.
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Aquatic toxicity:
Very Toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>1928-43-4 2,4-D present as the ethylhexyl ester</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC₅₀/120hr &gt;30 mg/L (selenastrum capricornutum)</td>
</tr>
<tr>
<td>EC₅₀/48 h 5.2 mg/L (daphnia)</td>
</tr>
<tr>
<td>LC₅₀/96 h 20 mg/L (bluegill)</td>
</tr>
<tr>
<td>&gt; 0.24 mg/L (fish)</td>
</tr>
</tbody>
</table>

Very toxic to aquatic life with long lasting effects.

Persistence and Degradability: No information available

Bioaccumulative Potential: No information available

Mobility in Soil: No information available

Other adverse effects: No information available

13 . DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:
Please consult your state Land Waste Management Authority for more information.

14 . TRANSPORT INFORMATION

UN Number
ADG
IMDG, IATA
Not regulated
UN3082

Proper Shipping Name
ADG
IMDG
IATA
Not regulated
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2.4-D present as the ethylhexyl ester)
Environmentally hazardous substance, liquid, n.o.s. (2.4-D present as the ethylhexyl ester)

Dangerous Goods Class
ADG Class: Not regulated
IMDG Class: 9 Miscellaneous dangerous substances and articles.

Packing Group:
ADG
IMDG, IATA
Not regulated
III

Marine pollutant: Yes

EMS Number:
F-A,S-F

Hazchem Code: .3Z

Special Provisions: 179, 274, 331, 335, AU01

Limited Quantities: 5L
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Packagings & IBCs - Packing Instruction: P001, IBC03, LP01
Packagings & IBCs - Special Packing Provisions: PP1
Portable Tanks & Bulk Containers - Instructions: T4
Portable Tanks & Bulk Containers - Special Provisions: TP1, TP29

15. REGULATORY INFORMATION

Australian Inventory of Chemical Substances:
64742-94-5 | Solvent naphtha (petroleum), heavy arom.

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Poisons Schedule: 6

16. OTHER INFORMATION

Date of Preparation or Last Revision: 27.04.2016
Prepared by: MSDS.COM.AU Pty Ltd
www.msds.com.au

Abbreviations and acronyms:
ADG: Australian Dangerous Goods
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC₅₀: Lethal concentration, 50 percent
LD₅₀: Lethal dose, 50 percent
IARC: International Agency for Research on Cancer
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)
Acute Tox. (Oral) 3: Acute toxicity, Hazard Category 3
Acute Tox. (Oral) 4: Acute toxicity, Hazard Category 4
Skin Sens. 1: Skin sensitisation, Hazard Category 1
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute), Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic), Category 1

Disclaimer
This SDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011”
The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. 4Farmers Australia Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.