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		Date : 25 / 10 / 2012
		Supersedes : 3 / 11 / 2009
<b>GLUFOSINATE-AMMONIUM 200 SL</b>		<b>H-0404</b>

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

**Trade name** : GLUFOSINATE-AMMONIUM 200 SL  
**Substance name** : Ammonium (DL)- 2-amino-4-(hydroxymethylphosphinyl)butanoic acid  
**Relevant identified uses** : Herbicide  
**Company identification** : ADAMA Agan Ltd  
P.O.B. 262  
ASHDOD Israel  
**Email** : MSDS@ma-industries.com  
**Emergency phone nr** : +972-8-8515211

### SECTION 2. Hazards identification

**Human health hazards** : Harmful if swallowed.  
Harmful : danger of serious damage to health by prolonged exposure through inhalation and if swallowed.  
May impair fertility Possible risk of harm to the unborn child.

### SECTION 3. Composition/information on ingredients

Substance name	Concentration % w/w	CAS No	EC No	Index No	REACH Reg.	Classification
Glufosinate-ammonium	: 17 - 20 %	77182-82-2	278-636-5	015-155-00-X	----	Repr. Cat. 2; R60 Repr. Cat. 3; R63 Xn; R20/21/22-48/20/22

### SECTION 4. First aid measures

**First aid measures**  
**Inhalation** : Remove victim to fresh air. Keep victim warm and at rest. If breathing is difficult, give oxygen.  
**Skin contact** : Remove affected clothing and wash all exposed skin area with soap and water, followed by warm water rinse.  
**Eye contact** : Rinse immediately with plenty of water  
**Ingestion** : Do not induce vomiting. Wash out mouth with plenty of water. Immediately get medical attention.

### SECTION 5. Fire-fighting measures

**Suitable extinguishing media** : foam , dry chemical , carbon dioxide  
**Protection against fire** : Wear suitable protective clothing. Self-contained breathing apparatus.  
**Special procedures** : Fight fires from a protected location . Dike fire control water for later disposal.  
**Hazardous decomposition products** : Phosphorus oxides , carbon oxides (CO, CO2) , nitrogen oxides

### SECTION 6. Accidental release measures

**For emergency responders** : Use appropriate protection (see section 8).  
**Environmental precautions** : If the product has contaminated surface water, inform the appropriate authorities.  
**Clean up methods** : Clean up any spills as soon as possible, using an absorbent material to collect it. Prevent entry to sewers and public waters.

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### SECTION 7. Handling and storage

- Handling** : Handle in accordance with good industrial hygiene and safety procedures.  
Do not breathe gas, fumes, vapour or spray.  
Ventilation required.  
Use breathing apparatus.
- Storage** : Keep container tightly closed.
- Precautions in handling and storage** : Good ventilation of the workplace required.  
Do not breathe vapour

### SECTION 8. Exposure controls/personal protection

- **Respiratory protection** : Wash hands thoroughly after handling.  
: During spraying wear suitable respiratory equipment.
- **Hand protection** : Wear suitable gloves.
- **Skin protection** : Wear suitable protective clothing
- **Eye protection** : Chemical goggles or safety glasses.

### SECTION 9. Physical and chemical properties

- Physical state at 20 °C** : Liquid
- Colour** : Blue.
- Odour** : Characteristic
- pH value** : 4-6
- Flammability** : Not flammable
- Density [g/cm<sup>3</sup>]** : 1.07-1.10
- Log P octanol / water at 20°C** : Glufosinate : Kow < 0.1 (pH 7, 22 °C )

### SECTION 10. Stability and reactivity

- Chemical stability** : Stable under normal conditions.
- Hazardous decomposition products** : Phosphorous oxide , carbon oxides (CO, CO<sub>2</sub>) , nitrogen oxides (NO, NO<sub>2</sub>)

### SECTION 11. Toxicological information

- Rat oral LD<sub>50</sub> [mg/kg] : 300 - 2,000
- Dermal, Rat LD<sub>50</sub> [mg/kg] : > 2000
- Rat inhalation LC<sub>50</sub> [mg/l/4h] : 8.5 mg/l
- Dermal irritation (rabbit)** : Not irritant
- Eyes irritation (rabbit)** : Not irritant
- Sensitization** : Non sensitizer
- Mutagenicity** : Not mutagenic (Glufosinate-ammonium)
- Carcinogenicity** : Not carcinogenic (Glufosinate-ammonium)
- **Reproductive toxicity** : May impair fertility (Glufosinate-ammonium)  
Possible risk of harm to the unborn child. (Glufosinate-ammonium)

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### SECTION 12. Ecological information

96 H-LC50 - Rainbow trout [mg/kg]	: 710
48 H-LC50-Daphnia magna [mg/l]	: 560 - 1000
96 H-EbC50 - Algae [mg/l]	: 37
LD50 Birds [mg/kg]	: Japanese quail > 5000 (8 days)
Bees LD50 [µg]	: Not toxic to bees
LC50 Earthworms [mg/kg soil]	: > 1000
Bioaccumulative potential	: Half-life time (t1/2) : 1.1-2.1 days

### SECTION 13. Disposal considerations

General	: Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
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### SECTION 14. Transport information

General information	: Not classified
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### SECTION 15. Regulatory information

EU Classification : This product is provisionally labelled by the supplier in accordance to the EU regulations:

Symbol(s)



R Phrase(s)

: T : Toxic  
: R22 - Harmful if swallowed.  
: R48/20/22 - Harmful : danger of serious damage to health by prolonged exposure through inhalation and if swallowed.  
: R60 - May impair fertility.  
: R63 - Possible risk of harm to the unborn child.

S Phrase(s)

: S01/02 - Keep locked up and out of reach of children.  
: S13 - Keep away from food, drink and animal feedingstuffs.  
: S20/21 - When using, do not eat, drink or smoke.  
: S23 - Do not breathe gas/fumes/vapour/spray.  
: S36/37 - Wear suitable protective clothing and gloves.  
: S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).  
: S53 - Avoid exposure - obtain special instructions before use.

### SECTION 16. Other information

List of relevant R phrases (heading 3) : R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.  
: R48/20/22 - Harmful : danger of serious damage to health by prolonged exposure through inhalation and if swallowed.  
: R60 - May impair fertility.  
: R63 - Possible risk of harm to the unborn child.

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Recommended uses and restrictions : None.

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**SECTION 16. Other information (continued)**

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