


# SAFETY DATA SHEET

## AMMO MAX

### 1: Identification of the Substance and Supplier

Product Name	AMMO MAX
Recommended Use	Herbicide
Company Details	Orion AgriScience Ltd Unit 1, 15 Sir Gil Simpson Drive, Harewood, Christchurch, 8053 PO Box 39 071, Harewood, Christchurch, 8545
Web Address	www.orionagriscience.co.nz
Email Address	orders@orionagriscience.co.nz
Telephone Number	(03) 928 2386 (office hours), 0800 674 6627 (free phone)
Emergency Telephone	0800 CHEMCALL (0800 243 622) (24 hours)
National Poison Centre	0800 POISON (0800 764 766) (24 hours)
Date of Issue/Revision	January 2016

### 2: Hazards Identification

Hazard Pictograms	
Priority Identifiers:	Toxic, Corrosive, Ecotoxic, Keep Out of Reach of Children
HSNO Classes:	Secondary Identifiers:
6.1D	May be harmful if swallowed, inhaled or absorbed through the skin
6.9A	May cause liver damage from repeated ingestion at high doses
8.3A	Contact may cause eye damage
9.1B	Toxic to aquatic organisms
9.2A	Very toxic to some plant species
9.3B	Toxic to terrestrial vertebrates

### 3: Composition/ Information on Ingredients

Ingredient	CAS No	Content (% w/v)
2,4-D dimethylammonium (active ingredient)	2008-39-1	10 - 30
2,4-D diethanolamine (active ingredient)	5742-19-8	>60
Other ingredients, water, etc		To Volume

### 4: First Aid Measures

Skin Contact:	In case of contact, immediately wash affected area with soap and water. Wash contaminated clothing before reuse. Seek medical advice if irritation persists.
Eye Contact:	Hold eyes open and rinse with water for at least 15 minutes. Remove contact lenses if easy to do so. Seek medical advice immediately.
Ingestion:	Do not induce vomiting. Seek medical advice immediately.
Inhalation:	Immediately move to fresh air and rest. Maintain half upright position if breathing is difficult. Seek medical advice immediately.
Workplace Facilities:	Hand wash facility. Eye wash facility.
Advice to Doctor:	No specific requirements. Treat symptomatically.
National Poison Centre	0800 POISON (0800 764 766) (24 hours)

### 5: Fire-Fighting Measures

Fire/Explosion Hazard	Non-Flammable.
HAZCHEM Code	3Z
ERP Guide No	34
Extinguishing Media	Water spray, foam, dry chemical or CO2.
Fire Fighting Instructions	During a fire, toxic fumes may be omitted. Wear self-contained breathing apparatus. Contain runoff.

### 6: Accidental Release Measures

**Caution:** Floors may be slippery. When dealing with spills wear personal protective clothing and equipment as described in section 8. Prevent further leakage. Keep bystanders away. Absorb spillage with inert material such as spill kit, sand or cat litter. Collect and place in a sealable container for disposal. Wash down affected area with water and detergent. Absorb and collect washings for disposal. Dispose of safely to a suitable landfill.

### 7: Storage, Handling and Use

Storage:	Keep out of reach of children. Store in original container, tightly closed and away from foodstuffs.
Handling and Use:	Keep out of reach of children. Avoid contact with eyes and skin. Avoid inhalation of spray mist. When mixing or applying, wear protective clothing as described in section 8. Do not eat, drink or smoke while using. Wash hands and face after use. Wash protective clothing after use.
Approved Handler Tracking Record Keeping	Required if applied in a wide dispersive manner, or by a commercial contractor. Not required.
REI	Record of use must be kept if 3 litres or more is used in an area within 24 hours, and is likely to enter air or water and leave that place.
Site Requirements under the HSNO Act 1996 and HSNO Regulations:	Until spray has dried <ul style="list-style-type: none"> <li>• A location test certificate is not required</li> <li>• A hazardous atmosphere zone is not required</li> <li>• Fire extinguishers are not required</li> <li>• Signage is required for 100 litres or more</li> <li>• Emergency information is required for 1 litre or more</li> <li>• An emergency plan is required for more than 100 litres</li> <li>• Secondary containment is required for more than 100 litres</li> <li>• Separation/Segregation from incompatible substances is not applicable</li> </ul>
Additional Requirements	All aspects of storage, handling, use, disposal and record keeping must be in accordance with NZS 8409:2004 'Management of Agrichemicals', and relevant local and regional council plans.

### 8: Exposure Control / Personal Protection

Tolerable Exposure Limit	None established.
Workplace Exposure Standards	<b>Product</b> – None established (Use lowest practicable level). <b>Active ingredient</b> – None established (Use lowest practicable level). (Note: 2,4-D as acid 10 mg/m <sup>3</sup> (8hr TWA) <b>Excipients</b> – None established (Use lowest practicable level)
Engineering Controls	Limited given nature of use.
Personal Protection:	
Eye	Safety glasses/goggles when mixing or applying.
Skin	Cotton overalls snugly fitting at the neck, wrist and ankle, boots and waterproof gloves
Respiratory	Not required where spray mist is not inhaled. Otherwise, respirator (organic vapour and particulate matter) is required.

### 9: Physical and Chemical Properties

Form	Amber Liquid
Odour	Ammonia like
Boiling Point	> 100°C
Flash Point	Will not flash
Auto ignition Temperature	Not applicable
Explosive Limits	Not applicable
Density	1.28 g/ml @ 20 °C
Vapour Pressure	Not available
Vapour Density	Not volatile
Solubility in Water	Soluble
pH	6.0 – 8.0
Oxidising Properties	Not an oxidizer
Corrosive Properties	Not a corrosive

### 10: Stability and Reactivity

Stability	Stable under normal conditions.
Incompatibility	Avoid mixing with strong acids and strong alkalis. Concentrate is corrosive to unprotected metals.
Decomposition	Decomposition will not occur under normal conditions.
Dangerous Reactions	Strong alkalis may react liberating dimethylamine gas which is highly flammable and corrosive. Oxidising agents may react in an explosive way, and may liberate toxic chlorine gas.

### 11: Toxicological Information

This section describes effects which could occur if this material is not handled in accordance with this data sheet.

Swallowed	Nausea, vomiting, abdominal pain, weakness, unconsciousness.
Eye	Irritation and eye damage.
Skin	Irritation.

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Inhalation	Headache, nausea, cough, sore throat.
Acute Toxicity (Active Ingredient)	<ul style="list-style-type: none"><li>Acute Oral LD50 (Rat) 625 mg/kg</li><li>Acute Dermal LD50 (Rabbit) 2115 mg/kg</li><li>Inhalation LC50 (24 hr) (Rat) &gt; 1.79 mg/l</li></ul>
Sensitisation Effects	None
Mutagenic Effects	None
Carcinogenic Effects	None
Reproductive Effects	None
Teratogenic (Birth) Effects	None
Systemic Effects	Ingestion at high doses is damaging to the liver

### 12: Ecotoxicity Information

This section describes effects which could occur if this material is not handled in accordance with this data sheet.

The following information is presented in respect of the active ingredient:

Ecotoxic Effects	<ul style="list-style-type: none"><li>Acute Oral LD50 (Pheasant) 472 mg/kg</li><li>LC50 (96 hr) (Rainbow trout) &gt;100 mg/l</li><li>LC50 (21 d) (Daphnia) 235 mg/l</li><li>EC50 (5 d) (Algae) 33.2 mg/l</li><li>Non toxic to bees.</li></ul>
Environmental Fate	Biodegradable. DT50 (soil) 10 days (typical).
Partition Co-Efficient (Kow)	LogP = -0.83 (low)
Environmental Exposure Limit:	None established.

### 13: Disposal Considerations

Product	Dispose of product by using it in accordance with the label. Waste product should be disposed of to a suitable landfill. For disposal of large quantities contact Orion AgriScience Ltd.
Container	Triple rinse empty containers and add the rinseate to the spray tank. Dispose of to a suitable landfill or agricultural recycling scheme. Do not burn. Do not use packaging for any other purpose.

### 14: Transport Information

Dangerous Goods	
UN Number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D AMINE 79%)
Class	9
Subsidiary Class	None
Packing Group	III
Additional Information	MARINE POLLUTANT
MTQ (Non-Commercial)	1000 litres
Passenger Service Vehicle:	Maximum 1 litre.

### 15: Regulatory

HSNO Approval No	HSR007878
ACVM Registration No	P7782

### 16: Other Information

Glossary	
Approved Handler	For some hazardous substances, persons storing, handling and using must be trained and certified
DT50	Time (days) for 50% reduction in concentration
EC50	Concentration required to produce an effect in 50% of organisms
Environmental Exposure Limit	Maximum concentration limit of a substance in an environmental medium, e.g., water, soil.
ERP Guide	Dangerous Goods – Initial Emergency Response Guide SNZ HB 76:2008
HAZCHEM Code	Emergency action code for emergency services

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<b>HSNO</b>	Hazardous Substances and New Organisms
<b>LC50</b>	Concentration that will kill 50% of organisms
<b>LD50</b>	Dose that will kill 50% of organisms
<b>MTQ</b>	Maximum Transport Quantity. The maximum amount of dangerous goods that can be transported by road by the user
<b>Partition Co-Efficient Kow</b>	Ratio of concentration between octanol and water. Values are given as the log value. A high value indicates a substance may bioaccumulate
<b>Record Keeping</b>	Includes a spray diary
<b>REI</b>	Restricted Entry Interval – The length of time after application before entry into the treated area is permitted without the use of protective equipment. For indoor environments, this time period commences once ventilation after treatment begins.
<b>Safety Note</b>	A brief document providing hazardous substance information for transport, storage and emergency management purposes
<b>STEL</b>	Short term exposure level
<b>Tolerable Exposure Limit</b>	Maximum concentration limit of a substance above which persons must not be exposed
<b>Tracking</b>	For some hazardous substances, a record must be kept of the transport, storage, sale and use of the product
<b>TWA</b>	Time weighted average
<b>Workplace Exposure Standard</b>	An occupational health standard limiting concentrations of specified substances to which persons are exposed
<b>Wide Dispersive Use</b>	A method of application involving equipment such as boom sprayers, mist blowers, vine sprayers, row sprayers, etc., as well as aerial application. Hand gunning within 30m of a property boundary is also classed as wide dispersive use. Knapsack sprayers are not classed as wide dispersive use

### Please Note

Users must ensure that the most up to date version of this safety data sheet is used.

This Safety Data Sheet summarises information on this product, and how to safely handle and use the product. Each user should familiarise themselves with the product label, Safety Note and Safety Data Sheet, and consider the information in the context of how the product will be handled and used, including in conjunction with other products. Orion AgriScience Ltd assumes no responsibility for the accuracy, completeness or suitability of this information. The user is responsible for determining the suitability and accuracy of this information for their particular purposes.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Always read the product label before use.