



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **FLASH 250 AC HERBICIDE**
Item Code:
Product Use: Herbicide
Restriction of Use: Refer to Section 15

New Zealand Supplier: ADAMA New Zealand Ltd
Address: Level 1/93 Bolt Road
Tahunanui, Nelson 7011

Telephone: +64 3 543 8275
Fax Number: +64 3 543 8274

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 18 July 2018

Section 2. Hazards Identification

This substance is hazardous according to the Hazardous Substances (Classification) Notice 2017

EPA Approval No: HSR000828

Pictograms



Toxic



Irritant



Chronic



Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1A (oral)	H300	Fatal if swallowed.	Acute Tox. 1
6.1A (dermal)	H310	Fatal in contact with skin.	Acute Tox. 1
6.1A (inh)	H330	Fatal if inhaled.	Acute Tox. 1
6.3A	H315	Causes skin irritation.	Skin Irrit. 2
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.9A	H372	Causes damage to organs through prolonged or repeated exposure.	STOT RE 1
9.1A	H400	Very toxic to aquatic life.	Aquatic Acute 1
9.3B	H432	Toxic to terrestrial vertebrates.	
9.4B	H442	Toxic to terrestrial invertebrates.	

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe fumes, vapours and spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.
P284	Wear respiratory protection.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P314	Get medical advice/attention if you feel unwell.
P320/1/2	Specific treatment or measures are urgent read first aid instructions on this label).
P330	Rinse mouth.
P362	Take off contaminated clothing and wash before re-use.
P391	Collect spillage.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	Storage Statement
P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Disposal Code	Disposal Statement
P501	Triple rinse empty container and add rinsate to spray tank. Burn in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill, or if appropriate, recycle. Avoid contamination of any water supply with product or empty container.

Section 3. Composition / Information on Ingredients

Ingredients	Weight %	CAS NUMBER.
Parquat (as dichloride)	25	1910-42-5
Other ingredients	<10	Proprietary
Water	To 100	7732-18-5

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician if required.

If on Skin DO NOT SCRUB SKIN. Remove contaminated clothing. Wash away remainder with water and soap, followed by a warm water rinse. Wash

contaminated clothes before re-use. If skin irritation occurs: get medical advice/attention.

If Swallowed Do NOT induce vomiting. Take to the nearest hospital immediately after alerting them by telephone. For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately.

If Inhaled Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms of poisoning: An early symptom of poisoning may be vomiting, although other symptoms include stomach pains, aauseas and burning of the mouth. In the event of any of the above symptoms the first aid treatment prescribed hereunder must be followed in full.

Ingestion: Fatal if swallowed.

Skin: Fatal in contact with skin. Causes skin irritation.

Inhalation: Fatal if inhaled.

Eyes: Causes serious eye irritation.

Chronic: May cause damage to organs through repeated or prolonged exposure.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable or combustible. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.
Hazards from combustion products	Product is likely to decompose only after heating to dryness, followed by further strong heating. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Suitable Extinguishing media	Use water fog or fine spray is for medium to large fires
Precautions for firefighters and special protective clothing	Wear proper protective equipment. Do not enter fire area without proper protective equipment.
HAZCHEM CODE	2X

Section 6. Accidental Release Measures

Wear full protective clothing as detailed in Section 8. Evacuate area from unnecessary personnel.

Environmental precautions

Dispose of this material and its container at hazardous or special waste collection point, in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities.

Methods and material for containment and cleaning up

Absorb onto sand, vermiculite or other suitable absorbent material and sweep or shovel spills into appropriate container for disposal. Dispose of in an authorised waste collecting point like Agrecovery or as per Local Regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Do not breathe fumes, vapours and spray.
- Do not get in eyes, on skin, or on clothing.
- Wash hands thoroughly after handling.

- Do not eat, drink or smoke when using this product. . Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Wear respiratory protection.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep away from children.
- Store in the original, container tightly closed and in a locked, dry, cool, well ventilated area, out of direct sunlight and away from stockfeed or foodstuffs.
- As a Class 9 Substance with Ecotoxicity Classifications storage of Flash Herbicide must be carried out in such a manner as to prevent contamination of waterways. It is recommended that The New Zealand Standard for the Management of Agrichemicals (NZS8409) is followed.
- Avoid all unnecessary exposure.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3

None of the ingredients have workplace exposure limits listed on WES.

Workplace Exposure Standard – Time Weighted Average (WES-TWA). *The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure.* Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). *The 15-minute average exposure standard.* Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply.

Engineering Controls

Provide local exhaust or general room ventilation.

Personal Protection Equipment



Eyes	Chemical goggles or face shield. Avoid wearing contact lenses.
Hands and Skin	Wear suitable gloves resistant to chemical penetration. Cover all skin with overalls, hair covering, apron and face shield. We suggest that protective clothing be made from rubber, PVC.
Respiratory	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Suitable respiratory equipment: Respirator with a particle filter. The filter class of the respirator must be suitable for the maximum expected concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Section 9 Physical and Chemical Properties

Appearance	Liquid
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Odour	Clear dark blue
Odour Threshold	Obnoxious pyridine odour
pH	4 - 5
Boiling Point	Approx. 100 °C at 100 kPa
Freezing/Melting Point	Approx. 0°C
Flash Point	Not applicable
Flammability	Not flammable
Upper and Lower Exposure Limits	Not applicable
Vapour Pressure	Not applicable
Vapour Density	Not applicable
Specific Gravity	1.08
Solubilities	Completely soluble in water
Partition Coefficient:	Not applicable
Auto-ignition Temperature	Not applicable
Viscosity, dynamic	Not applicable
Particle Characteristics	Not applicable
Volatiles	Water component

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	None under normal conditions
Incompatible Materials	None under normal conditions
Hazardous Decomposition Products	This product is likely to decompose only after heating to dryness, followed by further strong heating.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Fatal if swallowed.
Dermal	Fatal in contact with skin.
Inhalation	Fatal if inhaled.
Eye	Causes serious eye irritation.
Skin	Causes skin irritation.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

Paraquat Dichloride

Rat oral LD50 [mg/kg]:	157
Mouse oral LD50 [mg/kg]:	104
Guinea Pig oral LD50 [mg/kg]:	22-42
Dog oral LD50 [mg/kg]:	25-50
Rat dermal LD50 [mg/kg]:	236-500

Section 12. Ecotoxicological Information

HSNO Classes: 9.1A = Very toxic to aquatic life.
 9.3B = Toxic to terrestrial vertebrates.
 9.4B = Toxic to terrestrial invertebrates.

Paraquat

Toxicity/effect	Endpoint / Time/ Value / Unit / Organism
Toxicity to fish	LC50 96 H = 32mg/l (rainbow trout)
Toxicity to daphnia	EC50 (brown trout) = 96h = 2.15 - 13mg/l
Japanese quail:	LD 50 = 970mg/l
Hen	>LD50 = 262-380mg/l
Bobwhite quail 5 days:	LD50 = 981 mg/l
Mallard Duck	LD50 = 4048mg/l
Toxicity to Bees	Not toxic to bees
Persistence and degradability (product)	No data available
Bioaccumulative potential (product)	No data available
Mobility in soil (product)	No data available

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method: Triple rinse empty container and add rinsate to spray tank. Burn in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill, or if appropriate, recycle. Avoid contamination of any water supply with product or empty container.

Precautions: Do not allow product to enter waterways.

Disposal methods to avoid: Do not allow product to enter waterways.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012



Road and Rail Transport

UN No: 3016
 Class-primary 6.1
 Packing Group III
 Proper Shipping Name: BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC

Air Transport

UN No: 3016
 Class-primary 6.1
 Packing Group III
 Proper Shipping Name: BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC

Marine Transport

UN No: 3016
 Class-primary 6.1
 Packing Group III
 Proper Shipping Name: BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC

Special Provisions:

If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15 Regulatory Information

EPA Approval Code: HSR000828

HSNO Classification: 6.1A(Inh, dermal, oral), 6.3A, 6.4A, 6.9A, 9.1A, 9.3B, 9.4B

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Any (6.1A)
Location Certificate	50kg/L (6.1A)
Tracking Trigger Quantities	Any (6.1A)
Signage Trigger Quantities	50L/kg (6.1A)
Emergency Response Plan	100L(6.1A, 9.1A)
Secondary Containment	100L(6.1A, 9.1A)
HSNO Additional Controls (Restrictions of use)	
Restrictions of Use- 77A	<ul style="list-style-type: none">This substance must not be applied into or onto water
	<ul style="list-style-type: none">No person shall pack for sale or supply this substance unless it contains a stenching agent and an effective emetic.
Hazardous Property Controls Notice 2017	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 2	Certain substances restricted to workplaces only
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances
HPC Notice Part 4 Subpart C	Qualifications required for application of class 9 Pesticides.
ACVM Act and Regulations	
Registered pursuant to the ACVM Act 1997, See www.foodsafety.govt.nz for registration conditions	No. P007431
For all further controls	Refer to EPA website (www.epa.govt.nz) for controls document - HSR000828

Section 16 Other Information

Glossary

EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC50	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD50	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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