


Safety Data Sheet

Invado®


1) Identification of Substance:	
Product name:	Invado
Active Ingredient(s):	400g/litre flufenacet
ACVM Approval:	P9277
EPA Approval:	HSR101106
Distributed by:	Adria Crop Protection P.O. Box 535, Kumeu 0841, Auckland Ph: 09-412-9817 Fax: 09-412-9807 www.adria.nz
Emergency Number: National Poisons and Hazchem Information Centre	0800 734 607 (24hr)3 0800 POISON (0800 764 766)
2) Hazards Identification:	
	
HSNO Classifications:	6.1D (All), 6.1D (O), 6.5B, 6.9B (All), 6.9B (O), 9.1A (All), 9.1A (M), 9.2A, 9.3C
Signal Word:	Warning
Hazard Statement Codes:	
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H371/H373	May cause damage to organs through single, prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H421	Very toxic to the soil environment.
H433	Harmful to terrestrial vertebrates.
Prevention Statement Codes.	
P102	Keep out of reach of children.
P103	Read label before use.

P264	Wash body thoroughly after handling.
P270	Don't eat, drink or smoke when using this product.
P260/P261	Avoid breathing fume, mist and spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P273	Avoid release to the environment.
Response Statement Codes:	
P101	If medical advice is needed, have product container or label at hand.
P301 + P312	IF SWALLOWED: Call a poison centre or doctor/physician if you feel unwell.
P330	Rinse mouth.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P305+P351+P338	If skin irritation or rash occurs: Get medical advice/attention.
P333 + P313	Wash contaminated clothing before re-use.
P363	If exposed or you feel unwell: Call a POISON CENTRE or doctor/physician.
P309 + P311/P314	Collect spillage.
P391	
Storage Statement Codes:	
P405	Store locked up.

3) Composition Details:

Chemical identity:	Flufenacet	
Chemical identity of ingredients:		
Ingredient:	CAS No.:	Content (%w/v)
Flufenacet	142459-58-3	40%
Other ingredients determined not to be hazardous.		Up to 100%

4) First Aid Measures:	
General Information:	
Skin contact:	After contact with skin, wash immediately with soap and water.
Eye contact:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion:	If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre on 0800 POISON (0800 764766) or a doctor immediately.
Inhalation:	Keep patient calm. Remove to fresh air and seek medical attention.
Further Information:	Treatment: Treat according to symptoms (decontamination, vital functions).
5) Fire-Fighting Measures:	
Specific hazards:	Carbon and nitrogen oxides.
Extinguishing media and methods:	Dry chemical, water spray, foam, carbon dioxide.
Recommended protective clothing:	Wear SCBA and chemical-protective clothing.
Hazchem Code:	3Z
6) Accidental Release Measures:	
Personal precautions:	Use protective clothing. Avoid contact with skin, eyes and clothing. Remove contaminated clothes and shoes immediately.
Environmental precautions:	Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.
Spill procedures:	Wear appropriate protective clothing and prevent material from entering waterways. Absorb spills with inert material and place in waste containers. Wash area with water and absorb with further inert material.
Disposal procedures:	Dispose of waste safely, according to local Council regulations.
7) Handling & Storage:	
Handling:	Avoid contact with skin and eyes. Ventilation required. Keep away from heat sources and direct sunlight.
Storage:	Keep away from heat and protect from sunlight. Protect against freezing. Stores containing more than 100L are subject to requirement of an emergency management response plan, secondary containment and signage.
8) Exposure Control / Personal Protection:	
Engineering measures:	
Respiratory protection:	Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles.
Eye protection:	Safety goggles with side-shields.

Hand protection:	Suitable chemical resistant safety gloves (e.g. nitrile rubber (.4mm)).
Other protective equipment:	Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure.
General Safety & Hygiene measures:	Keep away from food, drink and animal feedstuffs. No eating, drinking or smoking during use. Wash hands and face before breaks and after work.
9) Physical & Chemical Properties:	
Form:	Suspension Concentrate
Colour:	White liquid
Odour:	Slight chemical odour
Melting point/boiling point:	Not available
Specific gravity:	1.146
Surface tension:	Not available
pH:	6.0 – 9.0
Flash point:	Not applicable
Ignition Temperature:	Not auto-flammable
Explosive Limits:	Not explosive
10) Stability & Reactivity:	
Conditions to avoid:	Temperature extremes
Materials to avoid:	Oxidizing agents, acids and alkali.
Hazardous reactions:	None known at time of publishing
11) Toxicological Information:	
Acute oral toxicity (based on active ingredient):	LD ₅₀ rat > 1,300 mg/kg.
Acute inhalation toxicity (based on active ingredient):	LD ₅₀ (4h) rat > 3.12 mg/ℓ.
Acute dermal toxicity (based on active ingredient):	LD ₅₀ rat > 5,000 mg/kg.
Skin irritation:	No irritation, rabbit.
Eye irritation:	Irritant, rabbit.
Sensitisation:	Weak dermal sensitiser (guinea pig).
12) Ecological Information:	
Acute fish toxicity:	LC ₅₀ (Bluegill sunfish): 2.4ppm LC ₅₀ (Rainbow trout): 3.49ppm
Toxicity for daphnia magna:	EC ₅₀ : 30.9ppm
13) Disposal Considerations:	
Disposal: 	Triple rinse container and add residue to spray tank. Return empty container to an AgRecovery collection point for disposal.
Empty container precautions:	VERY TOXIC TO AQUATIC ORGANISMS. Avoid contamination of any water supply with chemical or empty container.

14) Transportation Information:



Rail/road (RID/ADR):	ENVIRONMENTALLY HAZARDOUS SUBSTANCE (FLUFENACET), LIQUID, N.O.S. Class 9, UN: 3082, Packing Group III, Hazchem 3Z
Sea (IMDG code):	
Air (ICAO/IATA):	

15) Regulatory Information:

Certified Handlers:	Not required.
Tracking:	Not required but a record should be kept of use and disposal.
ACVM controls:	See www.foodsafety.govt.nz for registration conditions.

16) Other Information

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

The data contained in this safety data sheet is based on our current knowledge and describes the product only with regard to safety requirements. The data does not describe the product's properties. Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any existing laws and legislation are observed