

MATERIAL SAFETY DATA SHEET

NewAgco, Inc.
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Date of MSDS Preparation (Y/M/D): 2015-01-30

In Case of Emergency from Spill Call 1-613-996-6666 (CANUTEC)
For further information contact: 1-877-362-3276

SECTION – 1: PRODUCT IDENTIFICATION

Product Identifier : MPOWER Kamikaze® Imazethapyr Herbicide

Active Ingredient (%) : Imazethapyr (240 g/L)

Chemical Name : Ammonium salt of 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid

Chemical Family : Imidazolinone herbicide

Product Use : Post-emergence herbicide for use in field peas. Please refer to product label for further details.

SECTION – 2: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS #	Concentration	OSHA PEL	ACIGH TLV
Imazethapyr	101917-66-2	<25%	Not estab.	Not estab.
Urea	57-13-6	<25%		

SECTION – 3: HAZARDS IDENTIFICATION

Symptoms of Acute Exposure

Mildly irritating to the eyes and skin. May be harmful if swallowed.
Avoid breathing spray mist or vapours.

Hazardous Decomposition Products

Product likely to decompose at high temperatures resulting in formation of toxic gases.

Environmental Hazards

May be harmful to non-target plant species.

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SECTION – 4: FIRST AID MEASURES

IF POISONING IS SUSPECTED, immediately contact the poison control centre, doctor or local hospital. When possible have the product label or MSDS with you when calling for assistance, a poison control center or doctor, or when obtaining treatment. Provide details of product and exposure to emergency personnel. Describe possible symptoms and follow instructions provided.

IN CASE OF EYE CONTACT: Flush eyes immediately with cold running clean water. Hold eyelids apart for a minimum of 15 minutes while flushing eyes. If present, remove contact lenses after 5 minutes, then continue to rinse eye(s). Obtain medical attention immediately if irritation persists.

IN CASE OF SKIN CONTACT: Remove contaminated clothing. Thoroughly wash skin, hair and hands with soap and water. Flush with running water for a minimum of 15 minutes. Obtain medical attention immediately if irritation occurs or persists.

IN CASE OF INHALATION: Remove individual to fresh air. If not breathing, call 911 or an ambulance, then provide artificial respiration, preferably mouth-to-mouth. If breathing is laboured, give oxygen. Call for immediate medical attention.

IN CASE OF INGESTION: Immediately contact a poison control centre, doctor or local hospital for treatment advice. If individual is conscious, wash out mouth with fresh water. If conscious drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: No specific antidote available, treat symptomatically.

SECTION – 5: FIRE FIGHTING MEASURES

Flash point and method:	Not applicable.
Flammable limits in air:	
LFL:	Unknown
UFL:	Unknown
Fire and Explosion Hazard:	Can burn in fire, releasing toxic gases due to thermal decomposition.
Extinguishing Media:	Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.
Fire Fighting Instructions:	Evacuate personnel to safe area. Fight fire upwind from a safe distance to avoid hazardous vapours and decomposition products. Isolate hazard area. Do not allow runoff from fire fighting to enter drains or open water. Foam or dry chemical fire extinguishing systems are preferred to prevent excessive water run off.
Fire Fighting Equipment:	Fire fighters should wear self-contained breathing apparatus and full protective clothing.

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Hazardous combustion products: Oxides of carbon and nitrogen may be formed.

SECTION – 6: ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Personal Precautions: All personnel involved in the spill cleanup should follow good industrial hygiene practices. Small spills may be handled routinely. Suitable eye protection and clothing should be worn to prevent eye and skin exposure. Use adequate ventilation and if necessary wear an air-supplied respirator to prevent inhalation.

Release or spill procedures: Control the spill at its source. Contain the spill using a dike to prevent spread, contamination of soil or from entering sewage and drainage systems or any body of water. Pump or scoop large amounts of liquid into a proper container for disposal. If recovery of free liquid is not possible absorb remaining liquid or smaller spills with clay, sand, silica gel, acid binder, sawdust or vermiculite or other suitable material and place in proper container for disposal.

Waste disposal: Pesticide wastes are toxic. Dispose of in accordance to the appropriate provincial (Environment) or federal (DFO) regulations.

SECTION – 7: HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN and animals.

Handling: Prevent eating, drinking, and tobacco use in areas where there is a potential for exposure to the material. Rinse gloves and remove personal protective equipment when finished working with product. Thoroughly wash hands with soap and water after use, and before eating, smoking, drinking, or using the restroom. Prior to re-use of work clothes wash separately from household laundry. Containers not in use should remain closed. Prevent unauthorized access to product and rinse water to reduce contamination. Prevent product from contaminating bodies of water, crops, animals and birds.

Storage: Store in original container only, and in a well-ventilated, cool, dry, secure area. Protect from heat, sparks and flame. DO NOT freeze. Maintain storage at temperatures below 40 °C. Prevent cross contamination among products. Clean up spilled material immediately.

SECTION – 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Applicable control measures, including engineering controls: Work areas should have appropriate ventilation, containment, and procedures sufficient to maintain airborne levels below the TLV. Warehouses, production area, parking lots and waste holding facilities must have adequate containment to prevent environmental contamination. Options for separate shower and eating facilities may be provided. Train all employees in safe use of the product. Follow manufacturer's instructions for cleaning/maintaining PPE.

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THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE RECOMMENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

CONSULT AND READ THE ENTIRE PRODUCT LABEL BEFORE COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS.

Personal protective equipment for each exposure route:

Avoid breathing vapours or aerosols. Use goggles or face shield to avoid contact with eye and skin. Avoid contact with clothing. Wear neoprene or PVC gloves to protect skin. Wash thoroughly after handling and before eating, drinking, or using tobacco.

INGESTION: Do not eat, drink, or handle tobacco in areas where there is a potential for exposure to this material. Always wash thoroughly after handling.

EYES: Use chemical splash goggles if eye contact is likely. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

SKIN: Wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

INHALATION: A respirator is not normally required when handling this substance. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits.

SECTION – 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow to brownish transparent liquid.

Formulation Type: Emulsifiable concentrate.

Odour: Slight musty odour.

pH: 6.5 (formulated solution).

Molecular Weight (technical): 289.3

Molecular Formula (technical): $C_{15}H_{19}N_3O_3$

Specific gravity or density: 1.12 g/ml.

SECTION – 10: STABILITY AND REACTIVITY

Stability: Stable for at least two year at normal storage conditions. May decompose if heated.

Conditions to Avoid: Ignition sources. Avoid prolonged storage at temperatures above 38 °C (100 °F).

Material incompatibility: Strong oxidizers. Do not mix or store in mild steel or aluminum containers. Avoid use with equipment using zinc, brass or copper components.

Hazardous decomposition products: May decompose at high temperatures to form oxides of nitrogen and carbon.

Hazardous polymerization: Product will not polymerize.

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SECTION – 11: TOXICOLOGICAL INFORMATION

Acute toxicity/Irritation Studies (Technical Product):

Ingestion: Slightly Toxic Oral (LD50 Rat): > 5,000 mg/kg body weight
Dermal: Slightly Toxic Dermal (LD50 Rat): > 5,000 mg/kg body weight
Inhalation: Slightly Toxic Inhalation (LC50 Rat): > 2.5 mg/L air
Eye Contact: Slight Irritant (Rabbit)
Skin Contact: Non Irritant (Rabbit)
Skin Sensitization: Not a sensitizer (Guinea Pig)

Teratogenic effects: Technical imazethapyr is not known to exhibit reproductive or teratogenic (birth defect) effects.

Mutagenic effects: No evidence of mutagenic effects during *in vitro* and *in vivo* studies.

SECTION – 12: ECOLOGICAL INFORMATION

Environmental Summary: Products containing imazethapyr may leach in certain permeable soil types.

Fish Toxicity: (Imazethapyr technical):

Rainbow Trout LC₅₀ 96 Hour 340 mg/L

Bluegill LC₅₀ 96 Hour 420 mg/L

Avian Toxicity: (Imazethapyr technical):

Oral LD₅₀ Bobwhite Quail - > 2,200 mg/Kg

Oral LD₅₀ Mallard duck - > 2,100 mg/Kg

Bee Toxicity:

Contact LD₅₀ - > 100µg/bee

SECTION – 13: DISPOSAL CONSIDERATIONS

Waste disposal information: Pesticide wastes are toxic. Dispose of excess product in accordance with applicable federal, provincial and municipal laws and regulations.

Do not reuse empty containers. Triple rinse empty container, and return rinse water to dilution mixture. Dispose of dilution mixture as a hazardous waste if it cannot be disposed of by use through normal application as indicated on label instructions. Dispose of empty containers in accordance with local regulations. Consult provincial environment ministry for advice on waste disposal. Industrial/commercial waste may be handled at licensed facilities only. Waste shipments must be securely packaged and properly labelled. Only licensed carriers may be used, and proper documents must accompany the shipment.

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SECTION – 14 : TRANSPORT INFORMATION

Shipping information such as shipping classification:

TRANSPORTATION OF DANGEROUS GOODS CLASSIFICATION - ROAD/RAIL

Not Regulated.

UN No.: Not available

Packing Group: Not available

SECTION – 15: REGULATORY INFORMATION

WHMIS classification for product: Exempt

This MSDS has been prepared in accordance with WHMIS requirements, but the data are presented under 16 headings.

Other regulations; restrictions and prohibitions

Pest Control Products (PCP) Act Registration No.: 30127

SECTION – 16: OTHER INFORMATION

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and NewAgco will not be liable for any damages, losses, injuries or consequential damages which may result from the use of or reliance on any information contained herein. This Material Safety Data Sheet is valid for three years. This product is under the jurisdiction of the Pest Control Products Act and is exempt from the requirements for a WHMIS compliant MSDS. Hazardous properties of all ingredients have been considered in the preparation of this MSDS. Read the entire MSDS for the complete hazard evaluation of this product.

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