Safety Data Sheet

Issue Date: 26-Aug-2025 **Revision Date:** 26-Aug-2025 **Version** 1

1. IDENTIFICATION

Product identifier

Product Name Zaraxon Herbicide

Other means of identification

SDS # ADAMA-384

Registration Number(s) 81927-61-66222

UN/ID No UN3082

Recommended use of the chemical and restrictions on use

Recommended use Herbicide.

Details of the supplier of the safety data sheet

Manufacturer Address

Makhteshim Agan of North America, Inc. (d/b/a ADAMA)
8601 Six Forks Rd., Suite 300
Raleigh, NC 27615
1-919-256-9300

Emergency telephone number

Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Pale yellow liquid **Physical state** Liquid **Odor** Mildly bitter

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 2
Reproductive toxicity	Category 1B

Label elements

Signal word

Danger

Hazard statements
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.
May damage fertility or the unborn child.

Precautionary Statements - Prevention
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves, protective clothing, eye protection and face protection.
Wash face, hands and any exposed skin thoroughly after handling.

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water and soap.
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice/attention.

Precautionary Statements - Storage
Store locked up.

Precautionary Statements - Disposal
Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable.

Other Information
Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Fluroxypyr	81406-37-3	30-60
N-methyl-2-pyrrolidone	872-50-4	7-13
Naphthalene	91-20-3	0.1-1

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice — If exposed or concerned: Get medical advice/attention.

Eye Contact — Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact — Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

Inhalation — Remove to fresh air.

Ingestion — Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms Causes skin irritation. Causes serious eye damage. Suspected of causing cancer. May damage fertility or the unborn child.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray (fog). Carbon dioxide (CO2). Foam. Dry chemical. Alcohol resistant foam.

Unsuitable Extinguishing Media Using direct streams of water may spread the fire.

Specific Hazards Arising from the Chemical
Not determined.

Hazardous combustion products May decompose in fire due to thermal decomposition, releasing irritating and toxic gases. Carbon monoxide. Carbon dioxide (CO2). Hydrogen fluoride. Hydrogen chloride. Nitrogen oxides (NOx).

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate area and fight fire upwind from a safe distance to avoid possible hazardous fumes and decomposition products. Dike runoff and do not allow runoff to enter sewers, storm drains or waterways. Foam and dry chemical extinguishing systems are preferred to prevent environmental damage from excessive water runoff. Use water spray to cool fire exposed containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Environmental precautions

Environmental precautions Prevent material from entering surface waters, drains or sewers and open soil. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Small Spills: Absorb small spills on sand, vermiculite of other inert absorbent. Place contaminated material in appropriate container for disposal.
Large Spills: Dike large spills using absorbent or impervious materials such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, scrape up and place in an appropriate container for disposal. After removal, flush contaminated area thoroughly with water, observing all environmental regulations. Recover wash liquid with additional absorbent and place in container for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing and eye/face protection. Wash face, hands and any exposed skin thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up.

Incompatible Materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Naphthalene 91-20-3	TWA: 10 ppm pSk	TWA: 10 ppm TWA: 50 mg/m^3 (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m^3 (vacated) STEL: 15 ppm (vacated) STEL: 75 mg/m^3	TWA: 10 ppm; TWA: 50 mg/m^3; STEL: 15 ppm STEL: 75 mg/m^3 IDLH: 250 ppm

Appropriate engineering controls

Engineering Controls Showers. Eyewash stations. Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection Coveralls. Chemical resistant, impermeable gloves. Shoes and socks. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Pale yellow liquid	**Odor**	Mildly bitter
Color	Pale yellow	**Odor Threshold**	Not determined

Property	Values	Remarks • Method
pH	4.0-6.0	
Melting point / freezing point	No data available	
Initial boiling point and boiling range	No data available	
Flash point	No data available	
Evaporation rate	Not determined	
Flammability (Solid, Gas)	Not determined	

Property	Values	Remarks • Method
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor Pressure	Not determined	
Relative vapor density	No data available	
Relative Density	1.060 g/cm3	
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	No data available	
Decomposition temperature	Not determined	
Kinematic viscosity	Not applicable	
Dynamic viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

Other information

Liquid Density 8.75-8.85 lbs/gal

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization Will not occur.

Conditions to Avoid

Temperatures below 10°F.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Do not inhale.

Ingestion Do not ingest.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Fluroxypyr 81406-37-3	= 3162 mg/kg (Rat)	-	-
N-methyl-2-pyrrolidone 872-50-4	= 3914 mg/kg (Rat)	= 8 g/kg (Rabbit)	> 5.1 mg/L (Rat) 4 h
Naphthalene 91-20-3	= 1110 mg/kg (Rat)	= 1120 mg/kg (Rabbit)	> 0.4 mg/L (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Carcinogenicity Suspected of causing cancer.

Chemical name	ACGIH	IARC	NTP	OSHA
Naphthalene 91-20-3	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans	Group 2B - Possibly carcinogenic to humans	Reasonably Anticipated To Be A Human Carcinogen	Present

Reproductive toxicity May damage fertility or the unborn child.

Numerical measures of toxicity

The following ATE values have been calculated for the mixture

ATEmix (oral) 5,728.80 mg/kg
ATEmix (dermal) 36,333.30 mg/kg
ATEmix (inhalation-dust/mist) 23.20 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
N-methyl-2-pyrrolidone 872-50-4	EC50: >500mg/L (72h, Desmodesmus subspicatus)	LC50: =832mg/L (96h, Lepomis macrochirus) LC50: =1072mg/L (96h, Pimephales promelas) LC50: =1400mg/L (96h, Poecilia reticulata)	EC50: =4897mg/L (48h, Daphnia magna)
Naphthalene 91-20-3		LC50: 5.74 - 6.44mg/L (96h, Pimephales promelas) LC50: =1.6mg/L (96h, Oncorhynchus mykiss) LC50: 0.91 - 2.82mg/L (96h, Oncorhynchus mykiss) LC50: =1.99mg/L (96h, Pimephales promelas) LC50: =31.0265mg/L (96h, Lepomis	LC50: =2.16mg/L (48h, Daphnia magna) EC50: =1.96mg/L (48h, Daphnia magna) EC50: 1.09 - 3.4mg/L (48h, Daphnia magna)

		macrochirus)	

Persistence/Degradability
Not determined.

Bioaccumulation
There is no data for this product.

Mobility

Chemical name	Partition coefficient
N-methyl-2-pyrrolidone 872-50-4	-0.46
Naphthalene 91-20-3	3.4

Other adverse effects
Not determined

13. DISPOSAL CONSIDERATIONS

Disposal methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Naphthalene 91-20-3	U165	Included in waste streams: F024, F025, F034, F039, K001, K035, K060, K087, K145		U165

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste

Chemical name	California Hazardous Waste Status
Naphthalene 91-20-3	Toxic

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT
UN/ID No UN3082
Proper Shipping Name Environmentally Hazardous Substance, n.o.s. (Fluroxypyr)
Transport hazard class(es) 9
Packing Group III

IATA
UN number or ID number UN3082
Proper Shipping Name Environmentally Hazardous Substance, n.o.s. (Fluroxypyr)
Transport hazard class(es) 9
Packing group III

IMDG

UN number or ID number	UN3082
Proper Shipping Name	Environmentally Hazardous Substance, n.o.s. (Fluroxypyr)
Transport hazard class(es)	9
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AIIC
Fluroxypyr	X			X			X		
N-methyl-2-pyrrolidone	X	ACTIVE	X	X	X	X	X	X	X
Naphthalene	X	ACTIVE	X	X	X	X	X	X	X

Legend:

TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*

DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances*

IECSC *- China Inventory of Existing Chemical Substances*

KECL *- Korean Existing Chemicals Inventory*

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

AICS *- Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Naphthalene 91-20-3	100 lb / 5.4 kg (final RQ)		RQ 100 lb final RQ RQ 45.4 kg final RQ

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values %
N-methyl-2-pyrrolidone - 872-50-4	872-50-4	7-13	1.0
Naphthalene - 91-20-3	91-20-3	0.1-1	0.1

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21

and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Naphthalene	100 lb	X	X	X

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
N-methyl-2-pyrrolidone - 872-50-4	Developmental
Naphthalene - 91-20-3	Carcinogen

U.S. State Right-to-Know Regulations

This product contains the following State Right-to-Know chemicals:

Chemical name	New Jersey	Massachusetts	Pennsylvania
N-methyl-2-pyrrolidone 872-50-4	X	X	X
Naphthalene 91-20-3	X	X	X

16. OTHER INFORMATION

NFPA	**Health hazards** 1	**Flammability** 1	**Instability** 1	**Special hazards** -
HMIS	**Health hazards** -	**Flammability** -	**Physical hazards** -	**Personal protection** -

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Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet