

Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	10/29/2024	
Media Program:	Pesticides	
Regulatory Program(s)	FIFRA	
Company Name:	Inhance Technologies, LLC dba Advance Research Chemicals	
Facility Name:	Inhance Technologies, LLC dba Advance Research Chemicals	
Facility Physical Location:	5010 N Skiatook Rd	
(city, state, zip code)	Catoosa, OK 74015	
Mailing address:	5010 N Skiatook Rd	
(city, state, zip code)	Catoosa, OK 74015	
County/Parish:	Rogers	
Facility Phone Number	918-266-6789	
Facility Contact:	Kelly McFadden	VP of EHS
	kmcfadden@inhancetechnologies.com	
FRS Number:	110069447101	
Identification/Permit Number:	EPA Est. No. 72806-OK-1	
Media Identifier Number:	n/a	
NAICS:	325180	
SIC:	2819	
Personnel participating in inspection:		
Justin Mullenix	EPA Region 6	Life Scientist / Inspector
Kelly McFadden	Inhance Technologies, LLC	VP of EHS
Robert Adams	Inhance Technologies, LLC	Technical Fellow
EPA Lead Inspector Signature/Date	Mullenix, Justin Digitally signed by Mullenix, Justin Date: 2024.12.31 10:02:23 -06'00' Justin Mullenix	Date
Supervisor Signature/Date	Stuckey, Troy Digitally signed by Stuckey, Troy Date: 2025.01.13 09:51:36 -06'00' H. Troy Stuckey, PhD	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

This for-cause scheme producer establishment inspection was conducted pursuant to the Federal, Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 8, 7 U.S.C. §136f, and Section 9(a), 7 U.S.C. §136g(a), to evaluate compliance with FIFRA and the regulations thereunder.

The inspection occurred for-cause for suspected distribution or sale of an adulterated/contaminated pesticide, Azamax (EPA Reg. No. 71908-1-81268).

FACILITY DESCRIPTION

Inhance Technologies, LLC dba Advance Research Chemicals (“Advance Research Chemicals”), is a facility operating in Catoosa, Oklahoma whose parent company is headquartered at 22008 North Berwick Drive, Houston, Texas 77095. The company specializes in the production, distribution or sale of specialty chemicals including pesticides and generates an estimated \$60 million in annual revenue according to sources available online. The Catoosa, Oklahoma facility is registered with the EPA as a pesticide-producing establishment under Establishment Number 72806-OK-1.

Section II – OBSERVATIONS

I, EPA Region 6 inspector Justin Mullenix, arrived at Advance Research Chemicals on October 29, 2024, at approximately 10:35 AM. Upon signing in at the facility, I met with Kelly McFadden, the facility’s Vice President of Environmental Health and Safety. I explained the premise of FIFRA inspections to Ms. McFadden and asked if there was a conference room available. Ms. McFadden led me to a nearby conference room where we were then joined by Robert Adams, a Technical Fellow at the facility. I presented Ms. McFadden my federal credential and a Notice of Inspection which she signed (Appendix 1). I discussed in greater detail the purpose of the inspection, which was to follow up on a referral made by another EPA regional office regarding potential adulteration/contamination of a pesticide produced by Advance Research Chemicals. The pesticide, Azamax, was sampled by a state inspector in June of 2022 and found to be contaminated with trace amounts of the fungicide diphenylamine. In addition, the product’s active ingredient, azadirachtin, was found to be at a higher concentration than the labeled amount.

Ms. McFadden and Mr. Adams reviewed their company’s records and determined that the Azamax production contract had been terminated in October of 2023. They inquired about the product’s batch code which I was unable to provide. I asked how quality assurance is done at the facility regarding products such as Azamax. Ms. McFadden and Mr. Adams explained that their company was contracted to produce the Azamax by Parry America, Inc., the authorized agent of the product’s registrant, Coromandel International Limited. Under the terms of the contract, Advance Research Chemicals acted as a toll manufacturer for Parry America, Inc., to produce a specified quantity of the product for a

specified period of time utilizing specified materials provided by both companies. I asked if a copy of the manufacturing agreement, bills of lading, batch sampling records, inventory records, etcetera, could be provided to me for review. Upon receiving permission by an attorney at Advance Research Chemicals, Ms. McFadden provided a physical copy of the manufacturing agreement, as well as a bill of materials and a contract termination letter. She also emailed me a copy of the Neemazal T/S 1.2% EC (EPA Reg. No. 71908-1) material safety data sheet. She informed me that the other requested records would be provided via email at a later time once they were collected. I provided a Confidential Business Information (CBI) notice and declaration form to Ms. McFadden which she then filled out and included with the provided documents.

Ms. McFadden and Mr. Adams explained that most of the materials used in the production of Azamax were provided by Parry America, Inc. pursuant to the contract, and they did not believe that Advance Research Chemicals was to blame for the contamination; however, due to the period of time that had transpired since the termination of the manufacturing agreement, there was no longer any of the Azamax or its production materials left in inventory to review and/or sample to make a determination. I asked about the company's recordkeeping practices regarding production of pesticides, and it was explained that records are kept for at least 5 years. I informed Ms. McFadden that such records may be requested at a later time, and she agreed to provide them. I then completed a Receipt for Samples (Appendix 2) for the records collected during inspection. Copies of the Notice of Inspection and Receipt for Samples were then made and provided to Ms. McFadden for her records. No photographs were taken during the inspection. The inspection concluded at approximately 11:15 AM.

Section III – AREAS OF CONCERN

An area of concern identified during the inspection includes the potential distribution or sale of an adulterated/contaminated pesticide.

Section IV – FOLLOW UP

On October 29, 2024, at approximately 3:01 PM, Ms. McFadden emailed me a bill of lading, sample batch sheets, and an inventory record associated with Azamax.

Section V – LIST OF APPENDICES

Appendix 1 – Notice of Inspection

Appendix 2 – Receipt for Samples

Appendix 3 – MSDS for Neemazal T/S 1.2% EC

CBI/Sensitive Appendices (not included in published version of the report)

Appendix 4 – Parry America, Inc. Contract #1000433

Appendix 5 – Bill of Materials

Appendix 6 – Termination Letter
Appendix 7 – Sample Batch Sheets
Appendix 8 – Bill of Lading
Appendix 9 – Inventory Records

Appendix 1

Notice of Inspection



United States
ENVIRONMENTAL PROTECTION AGENCY

Washington, DC 20460

Notice of Inspection

Office of Enforcement and Compliance Assurance

Facility Name *Advance Research Chemicals*
JM 10/29/24
Enhance
(Enhance Technologies) dba

Facility Address *5010 N Skiatook Rd*
Catoosa, OK 74015

Name of Facility Official
Kelly McFadden

Title
VP EHS

By my signature, I represent that I am an owner, operator or agent in charge of the facility being inspected, and attest that the EPA, Designated State or Political Subdivision Employee or Officer identified on this form presented his or her credentials prior to issuing this Notice of Inspection.

Facility Official's Signature: *Kelly McFadden*

Authority for Inspection

For the purpose of inspecting and obtaining samples of any pesticides or devices packaged, labeled and released for shipment, and samples of any containers or labeling for such pesticides or devices, in places where pesticides or devices are held for distribution or sale [FIFRA § 9(a) (7 U.S.C. § 136g)]; and for the purpose of inspecting and obtaining copies of those records specified in FIFRA § 8 (7 U.S.C. § 136f) and 40 C.F.R. Part 169.

Reasons for Inspections (Check applicable boxes)

☐ Routine Inspection

Violation

☒ For Cause Inspection

Suspected:

Pesticide adulteration

Additional Information:

- Azamax (EPA Reg. No. 71908-1-81268)

Name of Inspector *Justin Mullemix*

Signature of Inspector *Justin Mullemix*

Date *10/29/2024*

Title *Life Scientist*

Time *10:50 AM*

Address *1201 Elm St., Dallas, TX 75270*

Note: The absence of a Facility Official's signature on this form does not invalidate this Notice of Inspection, or establish that consent to the inspection was not provided or that the proper procedures were not followed.

Appendix 2

Receipt for Samples



United States
ENVIRONMENTAL PROTECTION AGENCY

Washington, DC 20460

Receipt for Samples

Office of Enforcement and Compliance Assurance

Facility Name *Inhance Technologies dba
Advance Research Chemical*

Facility Address *5010 N. Skiatook Rd.
Catoosa, OK 74015*

Name of Facility Official
Kelly McFadden

Title
VP EHS

Samples Collected (Assign sample number and describe fully (e.g., product name, size, quantity, registration, establishment, lot, batch, model and/or serial numbers, etc.)) The following samples were collected by or on behalf of the U.S. Environmental Protection Agency and receipt is hereby acknowledged pursuant to Section 9(a) of the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. §136g).

10292024 - 08750731430001027713 - 01-01: MSDS Neemaza1

"

" - 01-02: Parry America Contract 1000433 (LBI) - 3pgs

"

" - 01-03: Bill of Materials (LBI) - 2pgs

"

" - 01-04: Termination Letter (LBI) - 1pg

☐ Duplicate samples requested and provided ☒ Duplicate samples not requested Amount paid ☐ Cash ☐ Credit Card ☒ No Charge

Acknowledgement of Samples Collected: The undersigned acknowledges that the samples shown above were obtained from pesticides or devices that were packaged, labeled and released for shipment.

Facility Official Signature *Kelly McFadden*

Date *10/29/24*

Name of Inspector *Justin Mullenix*

Title *Life Scientist*

Signature of Inspector *Justin Mullenix*

Date *10/29/24*

Address *1201 Elm St., Dallas, TX 75270*

Appendix 3

MSDS for Neemazal T/S 1.2% EC

MATERIAL SAFETY DATA SHEET

NEEMAZAL T/S 1.2% EC (AZADIRACHTIN BASED)

SECTION I

MANUFACTURER

E.I.D PARRY (INDIA) LIMITED
BIO PRODUCTS DIVISION
THYAGAVALLI VILLAGE
ALAPAKKAM VIA
CUDDALORE – 608 801 (INDIA)

Tel: 0091 4142 270201/202

REGD.OFFICE:

E.I.D PARRY (INDIA) LIMITED
Dare House, Chennai

SECTION II

HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Hazardous Components	%	CAS No.	OSHA/PEL	ACGIH/ TLV	OTHER LIMITS RECOMMEN DED
Azadirachtin A & B	1.2	11141-17-6 95507-03-2	None known	None known	None known
Other neem compounds, Aza-F, Aza-H, Aza-I, Salannin, Nimbin and Fatty acids etc.	2.8	118855-02-0 134788-15-1 134788-16-2 992-20-1 5945-86-8	Not known	Not known	Not known
Other proprietary mixture and formulation compounds.	96.0	Not known	Not known	Not known	Not known

For E.I.D PARRY (INDIA) LIMITED

Signature of the Preparer:

AUTHORISED SIGNATORY

SECTION III

PHYSICOCHEMICAL CHARACTERISTICS

Appearance	:	Brown Viscous liquid
Odour	:	Characteristic Neem Fragrant odour
Solubility in water	:	Emulsifies with water
Specific Gravity	:	0.98
Melting Point	:	> 160 ° C for Technical grade product
Vapour Pressure	:	$3.6 \cdot 10^{-11}$ (hpa)
Molecular Weight	:	720 - Aza - A 662 - Aza - B
Active Ingredients	:	Azadirachtin A Azadirachtin B
Empirical Formula	:	$C_{35}H_{44}O_{16}$ - Aza A $C_{33}H_{42}O_{14}$ - Aza B
Acidity	:	< 0.24%
PH	:	7 ± 0.02
Corrosion Characteristics	:	Non corrosive to HDPE containers
Viscosity	:	281.4 mm ² /S at 20 ° C 96.95 mm ² /S at 40 ° C
Explodability	:	Non explosive
Boiling Point	:	Not established

STABILITY AND REACTIVITY

Conditions to avoid	:	High temperature, sunlight
Materials to avoid	:	Acids, alkalis and oxidising agents
Dangers of Product Decomposition	:	None

SECTION IV

FIRE AND EXPLOSION DATA

Flash Point	:	> 171 °C - No Fire & Explosion Hazard
Flammable Limits	:	Not known
Extinguishing Media	:	Polymer foam or carbon dioxide
Special Fire Fighting Procedures	:	Wear protective clothing and face shields
Unusual fire and explosion hazards	:	No hazard

SECTION V

REACTIVITY DATA

Stability	:	Stable at ordinary conditions of use and storage
Conditions to avoid	:	High temperature, open sunlight or highly illuminated places degrade the material
Materials to Avoid	:	Acids, alkali or oxidizing agents.
Hazardous Decomposition	:	No hazardous materials are produced
Hazardous polymerization	:	Not occur

SECTION VI

HEALTH HAZARD DATA

Mode of Entry : Inhalation - yes
Skin - yes
Ingestion- yes

Health Hazards:

Acute Toxicity : Acute oral - Rat LD 50 – Not applicable (liquid)
Acute Dermal -Rat LD 50 – Not applicable (liquid)
Acute Inhalation-Rat-LC50 – Not applicable (liquid)
Skin Irritation-Rabbit –Mild
Eye Irritation-Rabbit-No Irritation
Skin Sensitization-Guinea Pig-No Sensitization

Acute &Chronic Toxicity (TGAC)

- : - Acute Oral-Rat-LD50>5000 mg/kg
- Acute Dermal-Rat-LD50>2000 mg/kg
- Acute Inhalation-Rat-LC50 > 0.10 mg/L
- Skin Irritation-Rabbit-No Irritation
- Eye Irritation-Slight
- Skin Sensitization-Guinea Pig- Slight
- Mutagenicity-Non Mutagenic
- Carcinogenicty-Non Carcinogenic
- Neurotoxicity-No Neurotoxicity(NOAEC 1000 mg/kg)
- Developmental Toxicity- Rats-NOAEC-50 mg/kg/day
- Dietary Toxicity- rats-NOAEC-100 ppm

SIGN AND SYMPTOMS OF EXPOSURE

Inhalation	:	May be irritating to mucous membrane and excessive Exposure may result in drowsiness
Ingestion	:	May cause drowsiness
Skin Contact	:	May cause mild irritation
Eye Contact	:	May cause mild irritation
Chronic Exposure	:	Chronic exposure may cause various implications

EMERGENCY AND FIRST AID PROCEDURE

Inhalation	:	Remove to fresh air
Ingestion	:	Induce vomiting by gastric lavage, call physician Immediately
Skin Contact	:	Wash skin with soap
Eye Contact	:	Wash eyes with excessive water. Get medical attention if required

SECTION VII

ECOLOGICAL SAFETY

Effect on Honeybees	:	Harmless
Effect on Earthworms	:	Harmless (> 1000 mg/kg)
Effect on Predators	:	Harmless
Hazard to Soil Micro flora	:	Non hazardous
Acute Daphnia Immobilization	:	EC ₅₀ > 50 mg/l
Acute Fish Toxicity (Rainbow Trout)	:	LC ₅₀ = 440 mg/l (24 hrs)
Algal Inhibition test	:	Non inhibitory, non stimulant
Metabolism in Soil	:	Rapid Decomposition in Soil
Degradability in Water	:	Readily Biodegradable in Water

SECTION VIII

PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush the area with water. Do not allow water to contaminate surrounding area. Personnel in operation may wear protective clothing.

WASTE DISPOSAL METHOD

Do not contaminate water, food, or feed by storage or disposal. Disposal of containers in an approved disposal facility. Ensure compliance with local, state and federal regulations.

PRECAUTIONS FOR HANDLING AND STORAGE

Keep in a cool and dry place. Avoid direct sunlight. Open dumping is prohibited. Dispose containers in an approved waste facility.

OTHER PRECAUTIONS

Shipping Name	:	NEEMAZAL T/S 1.2% EC
Shipping Containers Markings	:	NEEMAZAL T/S 1.2% EC
Shipping Container Labels	:	NEEMAZAL T/S 1.2% EC
Special Instructions	:	No special instruction on handling required
Flammability	:	Non flammable
Transport by Air	:	Safe for Air/Sea Transport

SECTION IX

CONTROL MEASURES

Respiratory Protection	:	Use spraying clothings to avoid spray mist Direct contact
Protective Gloves	:	Wear protective gloves
Eye protection	:	Wear chemical safety goggles

Ventilation : Thorough ventilation is recommended in case of accidental spillage

Work Practices : Observe good personnel hygiene. Wash hands after usage of the product

SECTION X

Regulatory Information

Designation : Eco-friendly Neem Based Liquid

: Non Hazardous Material

SECTION XI

Information Origin

E.I.D PARRY (INDIA) LIMITED
BIO PRODUCTS DIVISION
THYAGAVALLI VILLAGE
ALAPAKKAM VIA
CUDDALORE – 608 801 (INDIA)

Regd. Office:

E.I.D Parry (India) Limited.
234, N.S.C Bose Road
“Dare House”
Post Box No.12
Chennai - 600 001 India

The information contained herein is provided in good faith and is believed to be correct as of the date. However, E.I.D Parry (India) Limited makes no representation as to the comprehensives or accuracy of the information. It is expected that individuals receiving the information will exercise this independent judgment in deforming its appropriateness for a specific purpose. Accordingly, E.I.D Parry (India) Limited will not be responsible for damage of any kind resulting from the use of or reliance upon such information.