



# SAFETY DATA SHEET

## 1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Indole-3-butyric Acid  
SKU NUMBER: IBA  
COMPANY INFO: Plant Cell Technology Inc  
1601 Connecticut Ave, Suite 400, Washington DC 20009  
www.plantcelltechnology.com

EMERGENCY PHONE NUMBER: 1-202-621-5490 - US

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by Plant Cell Technology are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

## 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification:

- H301 – Acute toxicity (Category 3)
- H315 – Skin irritation (Category 2)
- H319 – Eye irritation (Category 2A)
- H335 – Specific target organ toxicity – single exposure (Category 3) – Respiratory system.
- H402 – Acute aquatic toxicity (Category 3)
- H412 – Chronic aquatic toxicity (Category 3)

GHS Label elements, including hazard and precautionary statements:



Signal Word: **Danger**

Hazard Statements:

- H301 – Toxic if swallowed.
- H315 – Causes skin irritation.
- H319 – Causes serious eye irritation.
- H335 – May cause respiratory irritation.
- H412 – Harmful to aquatic life with long lasting effects.

Precautionary Statements:

- P261 – Avoid breathing dust.
- P273 – Avoid release to the environment.
- P280 – Wear protective clothing/protective gloves/eye protection.
- P301 + P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: IBA; 4-[3-Indolyl]butyric Acid  
CAS No.: 133-32-4  
Formula:  $C_{12}H_{13}NO_2$   
Molecular Weight: 203.24  
EC No.: 205-101-5

Ingredient	CAS Number	Percent	Hazardous
Indole-3-butyric Acid	133-32-4	>98 %	No exposure limits established by OSHA or ACGIH

#### 4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. <b>Get medical attention.</b>
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. <b>Get medical attention.</b>
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. <b>Get medical attention if irritation persists.</b>
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. <b>Get medical attention if irritation persists.</b>

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

#### 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, carbon dioxide, dry chemical powder, or alcohol-resistant foam. Use extinguishing media suitable for surrounding fire.
Special Protective Equipment and Precaution for Firefighters:	In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.
Hazardous Combustion Products:	May emit toxic fumes under fire conditions.
Toxic Gases Produced:	Carbon monoxide, carbon dioxide, nitrogen oxides

#### 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Method of Containment and Cleanup:	Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water. Do not let products enter drains.

#### 7. HANDLING AND STORAGE

Precaution for Safe Handling:	Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Wash thoroughly after use.
Conditions for Safe Storage:	Keep in a tightly closed container and store in a cool, dry, and well-ventilated area. Protect from moisture as this material may be hygroscopic.
Incompatibilities:	Strong oxidizing agents, alkalis
Recommended Storage Temperature:	2 to 8 °C

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs): No data available

Threshold Limit Values (TLVs): No data available

Engineering Controls: Handle in accordance to general industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

Eye/Face Protection: Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.

Skin Protection: Protective gloves

Body Protection: Lab coat

Respiratory Protection: Wear appropriate dust mask.  
A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Cream to Tan Powder

pH (0.001 g/L): Under Development (8.5-10.5 suspected range) (solvent dependent)

Solubility: Soluble in NaOH or KOH

Melting Range: 123-125 °C

Vapor Density: No data available

Vapor Pressure: No data available

Specific Gravity: No data available

Odor: Slight characteristic odor

Odor Threshold: No data available

Viscosity: No data available

Relative Density: No data available

Evaporation Rate: No data available

Initial Boiling Point and Boiling Range: No data available

Flammability (solid, gas): No data available

Partition coefficient: No data available  
n-octanol/water):

Auto-ignition Temperature: No data available

Decomposition Temperature: No data available

Flash Point (Closed Cup): No data available

Flammable Limits: Upper (%) – No data available      Lower (%) – No data available

## 10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions of use

Possibility of Hazard Reactions: Will not occur

Conditions to Avoid: Excessive heat, moisture

Incompatibles Materials: Strong oxidizing agents, alkalis

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, nitrogen oxides, potassium oxides

## 11. TOXICOLOGICAL INFORMATION

Toxicity:	LD <sub>50</sub> (Oral-Rat)(mg/Kg):	>500
	LD <sub>50</sub> (Oral-Mouse)(mg/Kg):	100
	LD <sub>50</sub> (IP-Mouse)(mg/Kg):	100
Carcinogenicity:	NTP:	No
	IARC:	No
	Z List:	No
	OSHA Reg:	No
Reproductive Toxicity:	No data available	
Symptoms Associated with Overexposure:	Irritation, itching, gastrointestinal upset, nausea, vomiting, possible mutagenic effects, in extreme cases death, central nervous system depression.	
Specific Target Organ Toxicity:	Single Exposure:	Inhalation – may cause respiratory irritation.
	Repeated Exposure:	No data available
Target Organs:	None identified	
Medical Conditions Aggravated By Exposure:	None identified	
Routes of Entry:	Ingestion, inhalation, skin and eye contact	
NIOSH/RTECS NO:	NL5250000	

***The toxicological properties of this product have not been thoroughly investigated***

## 12. ECOLOGICAL INFORMATION

Ecotoxicity:	LC50 – <i>Oncorhynchus mykiss</i> (rainbow trout) - >90.5 mg/L – 96 hrs EC50 – <i>Daphnia magna</i> (water flea) - 57 mg/L – 48 hrs
Persistence and Degradability:	No data available
Bioaccumulative Potential:	No data available
Mobility in Soil:	No data available
Other Adverse Effects:	Harmful to aquatic life.

## 13. DISPOSAL CONSIDERATION

Disposal Procedure:	Dispose in accordance with all applicable federal, state, and local environmental regulations.
EPA Hazardous Waste Number:	No data available

## 14. TRANSPORT INFORMATION

Domestic (D.O.T.):	Proper Shipping Name:	Toxic solids, organic, n.o.s. (4-(Indol-3-yl)butyric acid)		
	Hazard Class:	6.1		
	UN:	2811	Packing group: III	
	Marine pollutant:	No		
	Poison Inhalation hazard:	No		
International:				
IMDG:	Proper Shipping Name:	Toxic solids, organic, n.o.s. (4-(Indol-3-yl)butyric acid)		
	Hazard Class:	6.1		
	UN:	2811	Packing group: III	EMS-No.: F-A, S-A
	Marine pollutant:	No		

IATA: Proper Shipping Name: Toxic solids, organic, n.o.s. (4-(Indol-3-yl)butyric acid)  
 Hazard Class: 6.1  
 UN: 2811 Packing group: III

**15. REGULATORY INFORMATION**

TSCA: Yes

SARA TITLE III:

Section 302 (EHS) Ingredients: No  
 Section 313 Ingredients: No  
 Section 304 (EHS/CERCLA) Ingredients: No  
 Section 311/312 Hazard: Acute Health Hazard

Massachusetts Right to Know Components: No components are subject to the Massachusetts Right to Know Act. □

Pennsylvania Right to Know Components: CAS No.: 133-32-4 4-(Indol-3-yl)butyric acid

New Jersey Right to Know Components: CAS No.: 133-32-4 4-(Indol-3-yl)butyric acid

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**16. OTHER INFORMATION**

<b>HMIS Rating:</b>	<b>Health Hazard</b>	<b>Chronic Health Hazard</b>	<b>Flammability</b>	<b>Physical Hazard</b>
	2		0	0
<b>NFPA Rating:</b>	<b>Health Hazard</b>	<b>Fire Hazard</b>	<b>Reactivity Hazard</b>	<b>Special Hazard</b>
	2	0	0	

Plant Cell Technology provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. The above information is intended to be used only as a guide to the appropriate precautionary handling of this material by a properly trained person. Plant Cell Technology shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.

Revision Date: March 13th, 2024