1. IDENTIFICATION
   Product Identifier: Indole-3-butyric acid
   Product Number: I015
   Distributor Name: TOKU-E Company
   Distributor Address: 715 W Orchard Dr, Suite 3
                       Bellingham, WA 98225
   Phone Number: (360) 734-1789
   Emergency Phone Number (US only): 1 (800) 535-5053
   Emergency Phone Number (International): +1 (352) 323-3500
   Safety Data Sheet Issued by: TOKU-E USA
   CAS-Number: [133-32-4]
   EC/REACH List Number: [205-101-5]
   Recommended Use: Naturally-occurring plant hormone of the auxin family
   Restrictions on Use: Not for human or animal use

2. HAZARD(S) IDENTIFICATION
   GHS Classification: Acute toxicity, Oral (Category 3)
                      Skin irritation (Category 2)
                      Eye irritation (Category 2A)
                      Specific target organ toxicity- single exposure (Category 3) (Respiratory system)

   GHS Label Elements, Including Precautionary statements

   Hazard Statements
   H301: Toxic if swallowed
   H315: Causes skin irritation
   H319: Causes serious eye irritation
   H335: May cause respiratory irritation

   Precautionary Statements
   P261: Avoid breathing dust/fumes/gas/mist/vapours/spray
   P264: Wash hands/skin thoroughly after handling
   P270: Do not eat, drink, or smoke when using this product
P271: Use only outdoors or in a well-ventilated area
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302 + P352: IF ON SKIN: Wash with plenty of soap and water
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312: Call a POISON CENTER or doctor/physician if you feel unwell
P313: Get medical advice/attention
P321: Specific treatment: see supplemental first aid instructions
P305 + P351 + P338:
P330: Rinse mouth
P332 + P313: IF SKIN irritation occurs: Get medical advice/attention
P337: If eye irritation persists: Get medical advice/attention
P362: Take off contaminated clothing and wash before reuse
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up
P501: Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC) by GHS
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonym(s)
4-(indol-3-yl)butyric acid;
IBA;
Hormodin;
Seradix;
Beta-Indolebutyric acid;

Formula
$C_{12}H_{13}NO_2$
Molecular Weight
203.24 g/mol
CAS-Number
[133-32-4]
EC-Number
[205-101-5]
Index-Number
Not available
Hazardous components
Indole-3-butyric acid
Acute toxicity, Oral (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)
4. FIRST-AID MEASURES
   General Advice Consult a physician. Show this Safety Data Sheet to the medical provider
   If Inhaled If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a doctor
   In Case of Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, consult a doctor
   If Swallowed Never give anything by mouth to an unconscious person. Consult a doctor. Rinse mouth with water.
   Most important symptoms and effects, both acute and delayed Please see Section 2 and/or Section 11
   Indication of any immediate medical attention and special treatment needed No data available

5. FIRE-FIGHTING MEASURES
   Suitable Extinguishing Media Water spray, alcohol-resistant foam, dry chemical, carbon dioxide
   Special Protective Equipment for Firefighters Wear self-contained breathing apparatus
   Hazardous Combustion Products Formed under fire conditions: Carbon and Nitrogen oxides

6. ACCIDENTAL RELEASE MEASURES
   General Evacuate personnel to safe location
   Personal Precautions Wear respiratory protection. Avoid dust formation and breathing vapors/mist/dust/gas. Ensure adequate ventilation
   Environmental Precautions Prevent spillage, do not let product enter drains
   Methods of Containment and Cleanup Place in suitable, closed containers for licensed disposal. Avoid dust formation

7. HANDLING AND STORAGE
   Precautions for Safe Handling Avoid contact with skin and eyes. Provide exhaust ventilation in areas where dust if formed
   Precautions for Safe Storage Keep container tightly closed and in a dry, well-ventilated place. Recommended storage temperature: 2-8°C
   Incompatibilities None known
8. **EXPOSURE CONTROLS/ PERSONAL PROTECTION**
Contains no substances with occupational exposure limit values

PPE: Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

PPE: Hand Protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands

PPE: Eye Protection
Use a face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)

PPE: Skin and Body Protection
Handle with gloves. Wear protective clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place. When deemed needed according to the concentration and amount of this product, use a complete body suit

9. **PHYSICAL/CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Appearance</td>
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<td>Optical Rotation</td>
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10. STABILITY AND REACTIVITY

Chemical Stability
Stable under recommended storage conditions

Possibility of Hazardous Reactions
No data available

Conditions to Avoid
No data available

Materials to Avoid
Strong oxidizing agents, Strong bases

Hazardous Decomposition Products
Carbon and Nitrogen oxides formed under fire conditions

11. TOXICOLOGICAL INFORMATION

Oral LD$_{50}$
Rat: 100 mg/kg

Inhalation LC$_{50}$
No data available

Dermal LD$_{50}$
No data available

Intraperitoneal LD$_{50}$
Mouse: 100 mg/kg

Intravenous LD$_{50}$
No data available

Skin Corrosion/Irritation
No data available

Serious Eye Damage/ Eye Irritation
No data available

Respiratory or Skin Sensitization
No data available

Germ Cell Mutagenicity
Human leukocyte, Other mutation test systems

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

Reproductive Toxicity
No data available

Teratogenicity
No data available

Specific Target Organ Toxicity: Single Exposure (Globally Harmonized System)
May cause respiratory irritation

Specific Target Organ Toxicity: Repeated Exposure (Globally Harmonized System)
No data available

Aspiration Hazard
No data available

Potential Health Effects
See Section 2, Hazard(s) Identification

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated

Synergistic Effects
No data available
Additional Information

RTECS: NL5250000

12. ECOLOGICAL INFORMATION

Toxicity

LC\textsubscript{50} *Oncorhynchus mykiss* (Rainbow trout): >90.5 mg/L, 96h
EC\textsubscript{50} *Daphnia magna* (Water flea): 57 mg/L, 48h

Persistence and Degradability
No data available

Bioaccumulative Potential
No data available

Mobility in Soil
No data available

PBT and vPvB Assessment
No data available

Treat as if harmful if released into environment

13. DISPOSAL CONSIDERATIONS

Product
Dispose of product through a licensed disposal company

Contaminated Packaging
Dispose of as unused product

14. TRANSPORTATION INFORMATION

DOT (US)

UN Number: 2811
Class: 6.1
Packing Group: III
Proper Shipping Name: Toxic solids, organic, n.o.s. (4-(Indol-3-yl)butyric acid)
Marine Pollutant: No
Poison Inhalation Hazard: No

IMDG

UN Number: 2811
Class: 6.1
Packing Group: III
EMS-Number: F-A, S-A
Proper Shipping Name: TOXIC SOLID, ORGANIC, N.O.S. (4-(Indol-3-yl)butyric acid)
Marine Pollutant: No

IATA

UN Number: 2811
Class: 6.1
Packing Group: III
Proper Shipping Name: Toxic solid, organic, n.o.s. (4-(Indol-3-yl)-butyric acid)

15. REGULATORY INFORMATION

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313

SARA 311/312 Hazards
Acute Health Hazard
Massachusetts Right to Know Components
No components are subject to the Massachusetts Right to Know Act

Pennsylvania Right to Know Components
4-(Indol-3-yl)butyric acid
CAS-Number [133-32-4]
Revision Date: Not available

New Jersey Right to Know Components
4-(Indol-3-yl)butyric acid
CAS-Number [133-32-4]
Revision Date: Not available

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

EU Information
SDS in accordance with REACH 1907/2006
EC List Number [205-101-5]
CAS-Number [133-32-4]
Name: 4-(indol-3-yl)butyric acid
Envisaged Registration Deadline: 30/11/2010
See GHS Information under Section 2, Hazard Identification

16. OTHER INFORMATION
Date of last revision: 2016-04-15

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. TOKU-E Company shall not be held liable for any damage resulting from handling or from contact with the above product. Please see reverse side of invoice or packing slip for additional terms and conditions of sale.