Identification

Product Name: Indole-3-butyric Acid (IBA)
Catalog Number: I002
Company: Caisson Laboratories
  Address: 836 South 100 East, Smithfield, UT 84335
  Telephone: 435.755.7615
  Fax: 435.755.7617
 Emergency Contact: CHEMTREC 800.424.9300 (703.527.3887)
Recommended Use: For research and laboratory use only.
Restrictions On Use: This product is 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.

Hazard(s) 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 - Respiratory System (Category 3)
H402 - Acute Aquatic Toxicity (Category 3)
H412 - Chronic Aquatic Toxicity (Category 3)

GHS Label elements, including 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/fume/gas/mist/vapours/spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face 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

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration (%)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indole-3-Butyric Acid</td>
<td>98 - 100</td>
<td>Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2A; STOT SE - Respiratory Sys. 3; Aquatic Acute 3; Aquatic Chronic 3; H301, H315, H319, H335, H412</td>
</tr>
</tbody>
</table>

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 Exposure**

- **If swallowed:** If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
- **In case of skin contact:** Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation persists.
- **In case of eye contact:** Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
- **If inhaled:** Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention.

**Most important symptoms and effects, both acute and delayed:** The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

**Recommendation for immediate medical care and special treatment needed:** No data available.

5 Fire-Fighting Measures

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment and precautions for fire-fighters:** Wear self-contained breathing apparatus and protective clothing.

**Special hazards arising from the substance or mixture:** Carbon oxides, Nitrogen oxides (NOx), Potassium oxides

**Additional Information:** No data available.
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.

Methods and material for 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

Precautions for safe handling: Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Keep away from combustible materials. Keep away from heat and sources of ignition. Provide appropriate exhaust ventilation at places where dust may be formed. 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 light and moisture.

Recommended storage temperature: 2 to 8°C

Incompatibilities: Strong oxidizing agents, alkalis

8 Exposure Controls / Personal Protection

OSHA Permissible Exposure Limits (PELs): No data available.

ACGIH 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: Wear chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.

Skin protection: Wear protective gloves.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (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).

Body protection: Wear lab coat, gown, or coveralls to protect from exposure.

9 Physical and Chemical Properties

Appearance: Off-White to Beige Powder

pH: No data available

Solubility: Soluble in NaOH, or KOH
Specific Gravity: No data available
Melting Range: 124.0 - 125.5 °C (255.2 - 257.9 °F)
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
Flash Point: No data available
Flammability (Solid, gas): No data available
Flammability Upper/Lower Limits: No data available
Partition Coefficient: n-octanol/water: No data available
Vapor Density: No data available
Vapor Pressure: No data available
Auto-ignition Temperature: No data available
Decomposition Temperature: No data available

10 Stability and Reactivity

Reactivity: No data available.
Chemical stability: Stable under normal conditions of use.
Possibilities of hazardous reactions: No data available.
Conditions to avoid: Excessive heat, moisture
Incompatible materials: Strong oxidizing agents, alkalis
Hazardous decomposition products: Carbon oxides, Nitrogen oxides (NOx), Potassium oxides

11 Toxicological Information

Toxicity: LD₅₀ Oral - Rat: > 500 mg/kg
LD₅₀ Oral - Mouse: 100 mg/kg
LD₅₀ IP - Mouse: 100 mg/kg
Carcinogenicity

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

Specific target organ toxicity - repeated exposure: No data available.

Target Organs: No data available.

Medical conditions aggravated by exposure: No data available.

Routes of entry: Ingestion, inhalation, skin and eye contact.

NIOSH/RTECS: NL5250000

12 Ecological Information

Toxicity: Toxicity to fish - LC₅₀ - Oncorhynchus mykiss (rainbow trout): > 90.5 mg/l - 96 hrs
Toxicity to daphnia - EC₅₀ - Daphnia magna (Water flea): 57 mg/l - 48 hrs

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Results of PBT and vPvB: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

Other adverse effects: Harmful to aquatic life.

13 Disposal Considerations

Disposal of Product: Dispose in accordance with all applicable federal, state and local environmental regulations.

Disposal of Packaging: Dispose of as unused product.

14 Transport Information

DOT (US)

Proper Shipping Name: Toxic solid, organic, n.o.s. (4-(Indol-3-yl)butyric acid)
UN/NA number: 2811 Class: 6.1 Packaging group: III Hazard Label: Toxic
Reportable Quantity (RQ): N/A
Poison Inhalation Hazard: No

IMDG

Proper Shipping Name: Toxic solid, organic, n.o.s. (4-(Indol-3-yl)butyric acid)
UN number: 2811 Class: 6.1 Packaging group: III Hazard Label: Toxic

IATA

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

15 Regulatory Information

TSCA: Listed
SARA Title III
Safety Data Sheet

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

16 Other Information

HMIS Rating
- Health hazard: 2
- Chronic health hazard:
- Flammability: 0
- Physical hazard: 0

NFPA Rating
- Health hazard: 2
- Fire hazard: 0
- Reactivity: 0
- Special Hazard:

Further information: All chemicals may pose unknown hazards and should be used with caution. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Caisson Laboratories, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.

Revision Date: 20 Aug, 2018