

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 25.11.2011

Version number 1

Revision: 19.08.2011

## 1 Identification of the substance/mixture and of the company/undertaking

- 1.1. Product identifier
- Trade name: Indole-3-butyric acid
- Article number: 26172
- CAS Number:  
133-32-4
- EC number:  
205-101-5
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the preparation Laboratory chemicals
- 1.3. Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
SERVA Electrophoresis GmbH  
Carl-Benz-Str. 7  
D-69115 Heidelberg  
Tel.: +49 6221 13840-0  
FAX: +49 6221 13840-10  
msds.info@serva.de
- Information department: Product Safety department Tel.: +49 6221 13840-35
- 1.4. Emergency telephone number: +49 6131 19240 (university hospital Mainz)

**SERVA**  
Electrophoresis

## 2 Hazards identification

- 2.1. Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

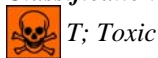


Acute Tox. 3 H301 Toxic if swallowed.

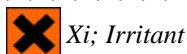


Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC



R25: Toxic if swallowed.



R36/37/38: Irritating to eyes, respiratory system and skin.

- Classification system:  
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

- 2.2. Label elements
- Labelling according to Regulation (EC) No 1272/2008  
The substance is classified and labelled according to the CLP regulation.
- Hazard pictograms GHS06
- Signal word Danger
- Hazard statements  
H301 Toxic if swallowed.

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*H315 Causes skin irritation.**H319 Causes serious eye irritation.**H335 May cause respiratory irritation.***· Precautionary statements***P280 Wear protective gloves/protective clothing/eye protection/face protection.**P264 Wash thoroughly after handling.**P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.**P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P405 Store locked up.***· 2.3. Other hazards****· Results of PBT and vPvB assessment****· PBT:** PBT - assessment not available.**· vPvB:** vPvB - assessment not available.**3 Composition/information on ingredients****· 3.1. Chemical characterization: Substances****· CAS No. Description:***133-32-4 4-(indol-3-yl)butyric acid***· Identification number(s):****· EC number:** 205-101-5**· Description:****· Empirical formula:**  $C_{12}H_{13}NO_2$ **· MW:** 203,24**4 First aid measures****· 4.1. Description of first aid measures****· General information** Remove contaminated clothing.**· After inhalation**

Supply fresh air.

Call a doctor immediately.

**· After skin contact** Immediately wash with water and soap and rinse thoroughly.**· After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.**· After swallowing** Drink copious amounts of water and provide fresh air. Call for doctor immediately.**· Information for doctor****· 4.2. Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**· 4.3. Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**5 Firefighting measures****· 5.1. Extinguishing media****· Suitable extinguishing agents***CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.***· 5.2. Special hazards arising from the substance or mixture***In case of fire, the following can be released:**Nitrogen oxides (NO<sub>x</sub>)**Carbon monoxide and carbon dioxide*

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- **5.3. Advice for firefighters**
- **Protective equipment:** *Wear self-contained respiratory protective device.*

## 6 Accidental release measures

- **6.1. Personal precautions, protective equipment and emergency procedures** *Wear protective clothing.*
- **6.2. Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.*
- **6.3. Methods and material for containment and cleaning up:**  
*Pick up mechanically.*  
*Dispose contaminated material as waste according to item 13.*  
*Ensure adequate ventilation.*
- **6.4. Reference to other sections**  
*See Section 8 for information on personal protection equipment.*  
*See Section 13 for disposal information.*

## 7 Handling and storage

- **Handling**
- **7.1. Precautions for safe handling**  
*Ensure good ventilation/exhaustion at the workplace.*  
*Open and handle receptacle with care.*  
*Prevent formation of dust.*
- **Information about protection against explosions and fires:** *Keep respiratory protective device available.*
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** *Store at +2 to +8 °C*
- **Information about storage in one common storage facility:** *Store away from oxidizing agents.*
- **Further information about storage conditions:**  
*Store under lock and key and with access restricted to technical experts or their assistants only.*  
*Keep receptacle tightly sealed.*  
*Store receptacle in a well ventilated area.*  
*Protect from exposure to the light.*
- **7.3. Specific end use(s)** *No further relevant information available.*

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** *No further data; see item 7.*
- **8.1. Control parameters**
- **Components with limit values that require monitoring at the workplace:** *Not required.*
- **Additional information:** *The lists that were valid during the creation were used as basis.*
- **8.2. Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
*Keep away from foodstuffs, beverages and feed.*  
*Immediately remove all soiled and contaminated clothing*  
*Wash hands before breaks and at the end of work.*  
*Store protective clothing separately.*
- **Breathing equipment:**  
*Short term filter device:*  
*Filter P3.*
- **Protection of hands:**  
*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.*

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Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Natural rubber, NR

Nitrile rubber, NBR

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing.

**9 Physical and chemical properties**

· **9.1. Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:** Crystalline powder

· **Colour:** Beige

· **Odour:** Odourless

· **Change in condition**

· **Melting point/Melting range:** 121 - 125°C

· **Boiling point/Boiling range:** undetermined

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Product is not flammable.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Bulk density at 20°C:** ca. 360 kg/m<sup>3</sup>

· **Solubility in / Miscibility with**

· **Water:** Insoluble

· **Alcohols:** Readily soluble

· **9.2. Other information** There are no more data available.

**10 Stability and reactivity**

· **10.1. Reactivity** No further relevant informations available

· **10.2. Chemical stability**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **10.3. Possibility of hazardous reactions** No further relevant informations available.

· **10.4. Conditions to avoid** exposure to the light

· **10.5. Incompatible materials:** Avoid contact with: strong oxidizers, strong acids, strong alkali

· **10.6. Hazardous decomposition products:**

Nitrogen oxides

Carbon monoxide and carbon dioxide

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### 11 Toxicological information

· **11.1. Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

Oral	LD50	100 mg/kg (Maus)
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· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Acute effects (acute toxicity, irritation and corrosivity)** Respiratory irritation is possible.

### 12 Ecological information

· **12.1. Toxicity**

· **Acquatic toxicity:** No further relevant information available.

· **12.2. Persistence and degradability** No further relevant information available.

· **Behaviour in environmental systems:**

· **12.3. Bioaccumulative potential** No further relevant information available.

· **12.4. Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **12.5. Results of PBT and vPvB assessment**

· **PBT:** PBT - assessment not available.

· **vPvB:** vPvB - assessment not available.

· **12.6. Other adverse effects** No further relevant information available.

### 13 Disposal considerations

· **13.1. Waste treatment methods**

· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· **14.1. UN-Number**

· **ADR, IMDG, IATA**

UN2811

· **14.2. UN proper shipping name**

· **ADR**

2811 TOXIC SOLID, ORGANIC, N.O.S. (4-(indol-3-yl)butyric acid)

· **IMDG**

TOXIC SOLID, ORGANIC, N.O.S. (4-(indol-3-yl)butyric acid)

· **IATA**

Toxic solid, organic, n.o.s. (4-(Indol-3-yl)butyric acid)

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## · 14.3. Transport hazard class(es)

## · ADR



- Class 6.1 Toxic substances.  
· Label 6.1

## · IMDG, IATA



- Class 6.1 Toxic substances.  
· Label 6.1

## · 14.4. Packing group

- ADR, IMDG, IATA III

## · 14.5. Environmental hazards:

- Marine pollutant: No

## · 14.6. Special precautions for user

- Warning: Toxic substances.  
· Danger code (Kemler): 60  
· EMS Number: F-A,S-A

## · 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## · Transport/Additional information:

- ADR  
· Tunnel restriction code E  
· UN "Model Regulation": UN2811, TOXIC SOLID, ORGANIC, N.O.S., 6.1, III

\* **15 Regulatory information**

## · 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

## · National regulations

## · Technical instructions (air):

Class	Share in %
I	80-100

· Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· 15.2. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

\* **16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing MSDS: Product safety department

· Contact: +49 6221 13840-35

## · Abbreviations and acronyms:

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

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*REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals*

*CLP: Regulation on classification, labelling and packaging of substances and mixtures*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*ICAO: International Civil Aviation Organization*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

· **\* Data compared to the previous version altered.**

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