

## PRODUCT SPECIFICATION

Cat. No. **H-8000**

Product **5-Hydroxytryptamine, free base**

Serotonin base;  
3-(2-Aminoethyl)-5-hydroxyindole

CAS RN [50-67-9]

M. F. C<sub>10</sub>H<sub>12</sub>N<sub>2</sub>O

M. W. 176.22 g/mol

### Specification

Appearance	off-white to light brown crystalline powder
Solution (1% in methanol)	colorless, clear
Water Content (K. Fischer)	< 1.0 %
Assay (perchloric acid titration)	min. 98.0 %
Thin Layer Chromatogram (100 mg in 3 ml of methanol; 1-propanol/acetic acid/water 4:1:1;	in accordance with reference material
UV 254 nm, ninhydrin reagent)	
FTIR	consistent with assigned structure

Date of Issue 27.05.2005

**BIOSYNTH AG**  
U. Zobel

# MATERIAL SAFETY DATA SHEET



Corresponding to (2001/58/EWG)

## 5-HYDROXYTRYPTAMINE, FREE BASE

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<i>MSDS name</i>	5-Hydroxytryptamine, free base
<i>Catalog no.</i>	H-8000
<i>Chemical name</i>	5-Hydroxytryptamine, free base
<i>Synonym</i>	Serotonin base; 3-(2-Aminoethyl)-5-hydroxyindole
<i>Application of the product</i>	Pharmaceutical Intermediate

#### Company Identification

BIOSYNTH AG	For Emergency Call	Version No.:	2.1
Rietlistrasse 4	Tel: +41(0)71 858 20 20	Date of issue:	27.10.2000
Postfach 125		Date of previous issue:	19.3.2004
9422 Staad			
Switzerland			
Tel: +41(0)71 858 20 20			
Fax: +41(0)71 858 20 30			

### SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

<i>CAS No.</i>	<i>Chemical name</i>	<i>Percent</i>	<i>EINECS</i>	<i>Classification</i>
[50-67-9]	5-Hydroxytryptamine, free base	100	200-058-9	T; R:23/24/25

### SECTION 3 - HAZARDS IDENTIFICATION

#### Emergency Overview

Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated. May be fatal if swallowed, inhaled or absorbed through skin.

<i>Target Organs</i>	Behavioral, cardiac, respiratory system, gastrointestinal, fertility, embryo or fetus, newborn.
<i>Potential Health Effects</i>	
<i>Eye</i>	May cause eye irritation.
<i>Skin</i>	May cause skin irritation.
<i>Ingestion</i>	May cause digestive tract irritation. Can cause effects on gastrointestinal tract (hypermotility, diarrhea).
<i>Inhalation</i>	May cause respiratory tract irritation. Can cause effects on lungs, thorax, or respiration (respiratory depression).
<i>Chronic</i>	Can cause effects on cardiac (other changes), behavioral (somnolence, tremor, convulsions or effect on seizure threshold, ataxia), specific developmental abnormalities (CNS, eye, ear, body wall, urogenital system, other abnormalities).

### SECTION 4 - FIRST AID MEASURES

<i>Eye</i>	In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
<i>Skin</i>	In case of contact, wash skin with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.
<i>Ingestion</i>	If swallowed, wash out mouth with water provided person is conscious. Call a physician.
<i>Inhalation</i>	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Call a physician.
<i>Notes to Physician</i>	Treat symptomatically and supportively.

### SECTION 5 - FIREFIGHTING MEASURES

<i>General Information</i>	As in any fire, wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
<i>Extinguishing Media</i>	In case of fire use water spray, carbon dioxide, dry chemical powder or appropriate foam.
<i>Autoignition Temperature</i>	Not available.
<i>Flash Point</i>	Not available.
<i>NFPA Rating</i>	Not published. Explosion Limits, Lower: Not available. Upper: Not available.

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

<i>General Information</i>	Use proper personal protective equipment as indicated in Section 8.
<i>Spills/Leaks</i>	Sweep up, place in a bag and hold for waste disposal; avoid raising dust; ventilate area and wash spill site after material pickup is complete.

## SECTION 7 - HANDLING AND STORAGE

<i>Handling</i>	Avoid ingestion and inhalation. Do not breathe dust. Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.
<i>Storage</i>	Keep container tightly closed when not in use. Store in deep freeze (below -15°C). Store dry. Protect from light. Air sensitive. Minimize Exposure to Atmosphere.

## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

<i>Engineering Controls</i>	Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.	
<i>Exposure Limit</i>	Not available.	
<b>Personal Protective Equipment</b>		
<i>Eyes</i>	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.	
<i>Skin</i>	Wear compatible chemical-resistant gloves and clothing to prevent skin exposure.	X
<i>Hand</i>	Wear compatible chemical-resistant gloves to prevent skin exposure.	X
<i>Clothing</i>	Wear appropriate protective clothing to prevent skin exposure.	
<i>Respirator</i>	Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.	

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<i>Appearance</i>	off-white to light brown crystalline powder	
<i>Odor</i>	No characteristic odor.	X
<i>pH</i>	Not available.	
<i>Boiling Point</i>	Does not apply.	X
<i>Melting Point</i>	150 - 156°C	
<i>Flash Point</i>	Not available.	
<i>Autoignition Temperature</i>	Not available.	
<i>Vapor Pressure</i>	Not available.	
<i>Vapor Density</i>	Not available.	
<i>Specific Gravity/Density</i>	Does not apply.	X
<i>Coeffizient octanol/water</i>	Not available.	
<i>Solubility in water</i>	Insoluble in water.	
<i>Solubility other</i>	Soluble in methanol.	
<i>Other physical data</i>	Not available.	
<i>Molecular Formula</i>	C <sub>10</sub> H <sub>12</sub> N <sub>2</sub> O	
<i>Molecular Weight</i>	176.22 g/mol	

## SECTION 10 - STABILITY AND REACTIVITY

<i>Stability</i>	Stable.
<i>Conditions to Avoid</i>	Incompatible materials, light, air, moisture.
<i>Incompatibilities</i>	Strong oxidizing agents.
<i>Hazardous Decomposition Products</i>	Toxic fumes of: carbon monoxide, carbon dioxide, nitrogen oxides.
<i>Hazardous Polymerization</i>	Will not occur.

## SECTION 11 - TOXICOLOGICAL INFORMATION

<i>RTECS</i>	NM 2450000	
<i>CAS No.</i>	[50-67-9]	
<i>LD50/LC50</i>	SCU-RAT LD50: 285 mg/kg; IVN-RAT LD50: 30 mg/kg ORL-MUS LD50: 60 mg/kg; IPR-MUS LD50: 160 mg/kg SCU-MUS LD50: 601 mg/kg; IVN-MUS LD50: 81 mg/kg	X
<i>Carcinogenity</i>	Not available.	
<i>Epidemiology</i>	Not available.	
<i>Teratogen</i>	Can cause effects on embryo or fetus (extra embryonic structures, fetotoxicity, fetal death), effects on newborn (live birth index).	
<i>Reproductive Effects</i>	Can cause paternal effects (testes, epididymis, sperm duct, prostate, seminal vesicle, cowper's, accessory glands), effects on fertility (litter size, abortion).	
<i>Neurotoxicity</i>	Can cause effects on behavioral (somnia, tremor, convulsions or effect on seizure threshold, ataxia).	
<i>Mutagen</i>	Not available.	
<i>Other Studies</i>	Only selected Registry of toxic effects of chemical substances (RTECS) data is presented here. See actual entry in RTECS for complete information.	

## SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Not available.
Environmental Fate	Not available.
Physical/Chemical	Not available.
Other	Not available.

## SECTION 13 - DISPOSAL CONSIDERATIONS

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber; observe all federal, state and local environmental regulations.

## SECTION 14 - TRANSPORT INFORMATION

### IATA

UN Number	UN 2811
Proper Shipping Name	Toxic solid, organic, n.o.s. (5-Hydroxytryptamine)
Class	6.1
Packing Group	III

### RID/ADR

UN Number	UN 2811
Proper Shipping Name	Toxic solid, organic, n.o.s. (5-Hydroxytryptamine)
Class	6.1
Packing Group	III

## SECTION 15 - REGULATORY INFORMATION

### European / International Regulations

Hazard Symbols	T
R-Phrase No.	Risk Phrases
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.

S-Phrase No.	Safety Phrases
S45S36/37/39S22	In case of accident, or if you feel unwell, seek medical advice immediately (show the label where possible).Wear suitable protective clothing, gloves and eye/face protection.Do not breathe dust.

### International Regulations

not available

### Various

Exposure Limit	Not available.
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## SECTION 16 - ADDITIONAL INFORMATION

T	Toxic
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.

*The information above is believed to be correct and represents the best information currently available to us but does not purport to be all inclusive and shall be used only as a guide. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way BIOSYNTH be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if BIOSYNTH has been advised of the possibility of such damages.*

changes are marked with X

