

2000  
2001

ALPHABETICAL  
LIST

BIOACTIVE  
PEPTIDES

IMMUNOCHEMICALS

MOLECULAR  
BIOLOGY

NEUROSCIENCE  
AND SIGNAL  
TRANSDUCTION

TISSUE CULTURE

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GROUPS / USP

EQUIPMENT / BOOKS  
AND SUPPLIES

DIAGNOSTIC KITS  
AND REAGENTS

PRODUCT INDEX

# Biochemicals and Reagents

FOR LIFE SCIENCE RESEARCH



**SIGMA**

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## The Sigma Creed

- Let No Non-Profit research organization anywhere in the world, suffer for lack of Sigma Reagents.
- Let No One have cause to say a Sigma Product was misrepresented.
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- Make Everyone feel that doing business with Sigma is a revelation and a pleasure! Even if you can't pay.
- As Long as we have the funds, no legitimate call for help will be disregarded.

THE ABOVE CREED WAS PUBLISHED MANY YEARS AGO WHEN RESEARCH WAS GENERALLY CARRIED OUT IN "RESEARCH ORGANIZATIONS." THE CURRENT TREND WITHIN PREPARATORY SCHOOLS, HOSPITALS, AND CLINICS TO DO "RESEARCH" AS A TEACHING FUNCTION OR AS A PART-TIME EXERCISE, HAS CREATED A DEMAND FOR SIGMA-FINANCING NOT INTENDED TO BE COVERED BY THIS CREED. HOWEVER, SPECIFIC INQUIRIES ARE INVITED.

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# COMPOUNDS

# ALPHABETICAL LIST OF COMPOUNDS

<b>t-BOC-N<sub>γ</sub>-XANTHYL-ASPARAGINE</b> 55420-40-8] C <sub>22</sub> H <sub>24</sub> N <sub>2</sub> O <sub>6</sub> FW 412.4	5 g	47.40
<b>t-BOC-N<sub>δ</sub>-XANTHYL-GLUTAMINE</b> 55240-24-7] C <sub>23</sub> H <sub>26</sub> N <sub>2</sub> O <sub>6</sub> FW 426.5	5 g	41.40
<b>LDINE</b> Contains ≤1% isopropanol [476-70-0] C <sub>19</sub> H <sub>21</sub> NO <sub>4</sub> FW 327.4 R: 22-36/37/38 S: 26-36	1 g 5 g	10.90 42.10

<b>ILTON-HUNTER REAGENT</b> See: 3-(p-Hydroxyphenyl)propionic Acid N-Hydroxysuccinimide Ester Page 546
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<b>IMBESIN</b> See: Bioactive Peptides Page 1050
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<b>JNE MARROW MEDIA</b> See: Tissue Culture Media and Reagents Page 1778
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## BOOKS

Over 400 technical reference works on a wide range of topics:

- Amino Acids/Peptides
- Biotechnology/Molecular Biology
- Cell/Tissue Culture
- Chromatography
- Clinical Chemistry
- Computer Techniques
- Dyes and Stains
- Electrophoresis
- Enzymology
- General References
- Immunochemistry/Immunology
- Lipid Chemistry
- Microbiology
- Microscopy
- Neurobiology/Neurochemistry
- Organic Chemistry
- Pesticides
- Pharmacology/Toxicology
- Protein Chemistry/Isolation
- Safety & Hazard
- Selected Techniques
- Selected Topics
- Spectra

See the Techware Section Page 2182

<b>BOP REAGENT</b> See: Benzotriazolyl-N-oxy-tris(dimethylamino)-phosphonium Hexafluorophosphate Page 154
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<b>9-BORABICYCLO[3.3.1]NONANE</b> See: 9-BBN Dimer Page 156
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<b>BORAGE OIL</b> From <i>Borago officinalis</i> seeds Contains 20-25% γ-linolenic acid (as triglycerides). See also: Evening Primrose Oil Page 413 Fungal Lipid Page 443 [84012-16-8]	100 g	46.00
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<b>BORAX</b> (Sodium tetraborate)		
<b>B 3545</b> Decahydrate <b>SigmaUltra</b> <b>99.5-105.0%</b> Solubility (0.1 M in water, 20°C): complete, colorless Insoluble matter: <0.1% Cl: <0.05% SO <sub>4</sub> : <0.05% Al: <0.0005% Ca: <0.0005% Cu: <0.0005% Fe: <0.001% [1303-96-4] Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> • 10H <sub>2</sub> O FW 381.4 R: 63-62-36/37/38 S: 45-26-36/37/39-22	500 g 1 kg	26.30 34.60

<b>B 9876</b> Decahydrate <b>99.5-105.0%</b> Widely used as a buffer. pH of a solution is approx. 9.3 over a wide range of concentrations. [1303-96-4] Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> • 10H <sub>2</sub> O FW 381.4 R: 63-62-36/37/38 S: 45-26-36/37/39-22	500 g 1 kg 5 kg	12.80 16.80 46.40
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<b>B 0127</b> Anhydrous <b>Minimum 99.0%</b> [1330-43-4] Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> FW 201.2 R: 63-62-36/37/38 S: 45-26-36/37/39-22	100 g 500 g 1 kg	13.80 29.50 50.00
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<b>BORDET GENGOU AGAR BASE</b> See: Microbiological Media and Components Page 2070
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<b>BORDET GENGOU AGAR BASE WITH 1.6% AGAR</b> See: Microbiological Media and Components Page 2070
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<b>BORDET GENGOU AGAR BASE WITHOUT PEPTONE</b> See: Microbiological Media and Components Page 2070
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<b>BORIC ACID</b> [110043-35-3] H <sub>3</sub> BO <sub>3</sub> FW 61.83 R: 63-62-36/37/38 S: 45-26-36/37/39-22		
<b>B 7660</b> SigmaUltra <b>Minimum 99.5%</b> pH (1 M in water, 20°C): 3.5-6.0 Solubility (1 M in water, 20°C): complete, colorless Insoluble matter: <0.1% Chloride (Cl): <0.05% Sulfate (SO <sub>4</sub> ): <0.05% Al: <0.0005% Ca: <0.0005% Cu: <0.0005% Fe: <0.0005% K: <0.0005% Mg: <0.0005% Na: <0.0005% NH <sub>4</sub> <sup>+</sup> : <0.05% P: <0.0005% Pb: <0.001% Zn: <0.0005%	100 g 500 g 1 kg	18.70 33.40 50.50

<b>B 0252</b> Minimum 99.5% See also: Plant Cell Culture Reagents Page 1866	100 g 500 g 1 kg 2.5 kg 5 kg 10 kg	9.40 16.70 25.20 47.70 85.90 134.10
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<b>B 0394</b> ACS Reagent Assay: ≥99.5% Insoluble in methanol: ≤0.005% Nonvolatile with methanol: ≤0.05% Chloride (Cl): ≤0.001% Phosphate (PO <sub>4</sub> ): ≤0.001% Sulfate (SO <sub>4</sub> ): ≤0.01% Calcium (Ca): ≤0.005% Heavy metals (as Pb): ≤0.001% Iron (Fe): ≤0.001%	500 g 1 kg 5 kg	27.10 48.80 159.40
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<b>BORIC ACID, Electrophoresis Reagent</b> See: Electrophoresis Reagents Page 1967
<b>BORIC ACID GEL</b> See under: Affinity Chromatography Media Page 1950

<b>BORIC ACID, Molecular Biology Reagent</b> See: Molecular Biology Products Page 1624
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<b>B 2645</b> Boric Acid <b>Contains 1 g boric acid per tablet.</b> H <sub>3</sub> BO <sub>3</sub> FW 61.83 R: 63-62-36/37/38 S: 45-26-36/37/39-22	100 tablets 1,000 tablets	26.90 149.30
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<b>BORIC ACID TRIMETHYL ESTER</b> See: Trimethyl Borate Page 980
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<b>d-2,3-BORNANEDIONE</b> See: (1S)-(+)-Camphorquinone Page 200
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<b>B 7888</b> BORNEOL <b>Approx. 85%</b> [507-70-0] C <sub>10</sub> H <sub>18</sub> O FW 154.3 R: 11-20/21/22-43 S: 16-36	100 g 500 g	36.00 133.60
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<b>(-)-BORNYL ACETATE</b> <b>B5,520-3</b> <b>Approx. 97% (capillary GC)</b> d = 0.98 g/ml Pheromone for <i>Periplaneta americana</i> . Aldrich Brand. Formerly Sigma Product B 6759. [5655-61-8]	100 g	19.20
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<b>B 3135</b> BORON <b>Practical Grade Amorphous powder</b> [7440-42-8] B FW 10.81 R: 11-20/21/22-37 S: 16-36-3/7/9	100 g	97.50
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<b>BORONIC ACID-AGAROSE</b> See: m-Aminophenylboronic Acid-Agarose under Affinity Chromatography Media Page 1949
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<b>B 0877</b> BORON TRICHLORIDE-METHANOL 10% boron trichloride in methanol for preparing methyl esters of fatty acids and for transesterification of triglycerides. Sealed ampules. Shelf life is extended considerably in sealed ampules. [10294-34-5] R: 11-23/25-34 S: 7-16-24-45	5 ml 10 ml 25 ml	18.30 24.70 38.20
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<b>BORON TRIFLUORIDE DIETHYL ETHERATE</b> d = 1.15 g/ml [109-63-7] C <sub>4</sub> H <sub>10</sub> BF <sub>3</sub> O FW 141.9 R: 10-34-23/24/25-14 S: 16-45-26-36/37/39		
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<b>B 6261</b> BORON TRIFLUORIDE DIETHYL ETHERATE Brown liquid [2-8°C]	100 ml 250 ml	17.50 21.20
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<b>21,660-7</b> BORON TRIFLUORIDE DIETHYL ETHERATE Redistilled Light yellow liquid. Aldrich Brand. Formerly Sigma Product B 8764. [2-8°C]	100 ml	36.20
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<b>BORON TRIFLUORIDE-METHANOL</b> 14% boron trifluoride in methanol is useful for preparing methyl esters of fatty acids and for transesterification of triglycerides.		
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<b>B 1127</b> BORON TRIFLUORIDE-METHANOL 14% solution in sealed ampule. Shelf life is extended considerably in sealed ampules. [373-57-9] R: 11-23/25-34 S: 7-16-24-45	5 ml 25 ml 10 × 5 ml	16.30 29.80 106.10
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<b>B 1252</b> BORON TRIFLUORIDE-METHANOL 14% solution in bottle with screw-cap closure. [373-57-9] R: 11-23/25-34 S: 7-16-24-45	5 ml 100 ml 250 ml 500 ml 1 liter	15.40 20.80 28.40 48.20 79.70
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