



2017/18 PRODUCT CATALOGUE

ANTIBIOTICS, BIOCHEMICALS AND LIQUID BUFFERS

 **FORMEDIUM**
CREATING THE CULTURE FOR DISCOVERY™

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ANTIBIOTICS, BIOCHEMICALS AND LIQUID BUFFERS

3-AMINO-1,2,4-TRIAZOLE, 3-AT

SKU	Size
3AT010	10g
3AT025	25g
3AT100	100g

C₂H₄N₄=84.08

3-AT is a competitive inhibitor of the product of the HIS3 gene, imidazoleglycerol-phosphate dehydratase. Imidazoleglycerol-phosphate dehydratase is an enzyme catalyzing the sixth step of histidine production.

Specifications

Assay (TLC)	≥95%
Melting range	152 - 153°C
Loss on drying	<0.2%

Store at 2 - 8°C
CAS 61-82-5



Hygroscopic - do not breathe dust



GHS08 - GHS09

5-AMINOLEVULINIC ACID HYDROCHLORIDE

SKU	Size
5ALA01	1g
5ALA05	5g
5-ALA10	10g

$\text{NH}_2\text{CH}_2\text{COCH}_2\text{CH}_2\text{COOH}\cdot\text{HCl} = 167.59$

Specifications	
Assay (HPLC)	$\geq 99\%$
Melting range	148.2 - 149.6°C
Loss on drying	<0.2%
Residue on ignition	0.06%

CAS 5451-09-2



GHS07 Skin & Eye Irritation

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5-FLUORO OROTIC ACID MONOHYDRATE

SKU	Size
5FOA01	1g
5FOA05	5g
5FOA10	10g

$\text{C}_5\text{H}_3\text{FN}_2\text{O}_4\cdot\text{H}_2\text{O} = 192.1$

Specifications	
Character	Slight yellow crystalline powder
Solubility	Soluble in DMSO, slightly soluble in alcohol and methanol
Assay (HPLC)	$\geq 98\%$
Loss on drying	<0.2%

CAS 207291-81-4



Hygrosopic - do not breathe dust
GHS08 - GHS09

AMPICILLIN SODIUM

SKU	Size
AMP05	5g
AMP10	10g
AMP25	25g
AMP50	50g
AMP100	100g

C16H18N3O4SNa=371.4

Specifications

USP 25, Ph. Eur.	Value
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Store dry at 2-8°C

Soluble in water

Hygroscopic, protect against moisture

CAS 69-52-3



Hygroscopic - do not breathe dust
GHS08 - GHS09

CANAVANINE SULPHATE

SKU	Size
CAN001	1g
CAN005	5g

C5H14N4O7S=274.3

L-Canavanine is a toxic structural analogue of L-Arginine. The uptake of Canavanine leads to incorporation in protein in the place of Arginine, thereby producing structurally aberrant proteins that may not function properly. Both Canavanine and Arginine are imported into the cell by the same high affinity permease which is encoded by the CAN1 locus. Mutations and deletions in this CAN1 locus result in high level resistance to L-Canavanine.

Specifications

Appearance	White to off white crystal
Content	99.25%
Water	0.45%
Loss on drying	≤0.5%
Residue on ignition	≤0.1%
Heavy metals	≤10ppm
Assay	≥99%

CAS 2219-31-0

Store at Dry at 2-8°C



GHS07 Skin & Eye Irritation

CARBENICILLIN DISODIUM

SKU	Size
CAR0005	5g
CAR0025	25g

C₁₇H₁₆N₂Na₂O₆S=422.4

Store dry at 2-8°C

Soluble in water

Hygroscopic, protect against moisture

CAS 4800-94-6



Hygroscopic - do not breathe dust
GHS08 - GHS09

CEFOTAXIME SODIUM

SKU	Size
CEFO001	1g
CEFO005	5g
CEFO025	25g

C₁₆H₁₆N₅NaO₇S₂=477.4

Store dry at 2-8°C

Keep container tightly closed and protect from light

Soluble in water

CAS 64485-93-4



Hygroscopic - do not breathe dust
GHS08 - GHS09

CHLORAMPHENICOL

SKU	Size
CLA01	25g
CLA02	100g

C11H12Cl2N2O5=323.1

Store dry at room temperature

Slightly soluble in water (2.5 g/L)

Soluble in ethanol

CAS 56-75-7



Hygrosopic - do not breathe dust
GHS08 - GHS09



GHS07 Skin & Eye Irritation

DOXYCYCLINE HYCLATE

SKU	Size
DOX01	1g
DOX05	5g
DOX10	10g
DOX25	25g
DOX100	100g



Doxycycline is a bacteriostatical Tetracycline like antibiotic. The antibiotic is effective against both gram-positive and gram-negative bacteria. It binds reversible to the ribosomal 30 S unit, preventing binding of aminoacyl transfer RNA and hence inhibiting protein synthesis.

Doxycycline is an effective repressor of the TetO7 promoter system.

Media containing 10 micro-gram Doxycycline effectively repress the TetO7 promoter.

Specifications

Doxycycline Hyclate
Doxycycline hydrochloride
hemi-ethanolate hemihydrate

Assay	>98%
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Store dry at 2-8°C

Soluble in water

Protect against light

CAS 24390-14-5



Hyrgoscopic - do not breathe dust
GHS08 - GHS09



GHS07 Skin & Eye Irritation

DTT

SKU	Size
DTT005	5g
DTT010	10g
DTT025	25g
DTT100	100g

Dithiothreitol $C_4H_{10}O_2S_2=154.2$

Store dry at 2-8°C

Soluble in water

Hygroscopic, protect against moisture

CAS 3483-12-3



GHS07 Skin & Eye Irritation

EDTA DISODIUM

SKU	Size
EDTA250	250g
EDTA500	500g
EDTA1000	1000g
EDTA6000	6 x 1kg

$C_{10}H_{14}N_2O_8Na_2 \cdot 2H_2O = 372.2$

EDTA Na₂·2H₂O

Ethylenediaminetetra-acetate Disodium Dihydrate



GHS07 Skin & Eye Irritation

Specifications	
Purity	>99%

Store dry at room temperature

Soluble in water (20°C. 100g/L)

Hygroscopic, protect against moisture

CAS 6381-92-6

G-418 DISULPHATE

SKU	Size
G4181	1g
G4185	5g

C₂₀H₄₀N₄O₁₀·2H₂SO₄=692.7

G-418 is a member of the large family of Aminoglycoside antibiotics and has a molecular structure almost like Gentamycin. The antibiotic is an irreversible inhibitor of protein synthesis. Due to its structure is capable of binding to both prokaryotic and eukaryotic ribosomes and inhibiting protein synthesis and generating errors in the transcription of the genetic code.

G-418 can be inactivated by NPTII or 3APH. The hydroxyl group present at the 3 position of G-418 is phosphorylated by NPTII. The resulting steric change of the molecular structure of the antibiotic prevents it from binding at its ribosome binding site.

Specifications

Character	Fine white powder
Solubility	Freely soluble in water
Specific Optical Rotation	+104 ~ +121
Water	<6%
Absorbance 570 nm	<0.10
Absorbance 280 nm	<0.015
NH ₄ ⁺	< 1.0%
pH	5.5 ± 0.5
Thin Layer Chromatogram	One Spot
Potency	>720 µ/mg

Store at 2 - 8°C
Protect from light
CAS 108321-42-2



Hygroscopic - do not breathe dust
GHS08 - GHS09



GHS07 Skin & Eye Irritation

G-418 SOLUTION

SKU	Size
G418S	20ml
G4185S	5 x 20ml

C₂₀H₄₀N₄O₁₀·2H₂SO₄=692.7

G-418 is a member of the large family of Aminoglycoside antibiotics and has a molecular structure almost like Gentamycin. The antibiotic is an irreversible inhibitor of protein synthesis. Due to its structure is capable of binding to both prokaryotic and eukaryotic ribosomes and inhibiting protein synthesis and generating errors in the transcription of the genetic code.

1 Bottle contains 20 ml G-418 Solution 50 mg/ml.

Specifications

Solubility	Freely soluble in water
Specific Optical Rotation	+104 ~ +121
Water	<6%
Absorbance 570 nm	<0.10
Absorbance 280 nm	<0.015
NH ₄ ⁺	< 1.0%
pH	5.5 ± 0.5
Thin Layer Chromatogram	One Spot
Potency	>720 µ/mg
Water Purity Used	
Resistivity at 25°C.	18.2 M
Bacterial endotoxin	<0.001 EU/ml
TOC	1-3 ppb
Bacteria	< 0.1 CFU/ml
Bacterial endotoxin	< 0.001/ml
RNase and DNase	Removed

Store at 4°C

CAS 108321-42-2



Hygroscopic - do not breathe dust
GHS08 - GHS09



GHS07 Skin & Eye Irritation

GENTAMICIN SULPHATE

SKU	Size
GEN05	5g
GEN25	25g

Specifications

Potency Approximately 640 µ/mg

Store dry at room temperature

Soluble in water

CAS 1405-41-0



Hygroscopic - do not breathe dust
GHS08 - GHS09



GHS07 Skin & Eye Irritation

HEPES

SKU	Size
HEPES01	100g
HEPES03	250g
HEPES05	500g
HEPES10	1000g
HEPES60	6kg

C8H18N2O4S=238.3

Specifications	
HEPES	>99.5%
Loss on Drying (105 C° 4hr)	<0.5%
Water Content (By KF)	<0.5%
Infrared	Complies
pH 1% in water	4.8-5.6 (25°C)
Solubility 1M in water	Clear and colourless solution
Residue on ignition	<0.1%
A260, 1M in water	<0.045
A280, 1M in water	<0.035
A420, 1M in water	<0.20
Heavy Metals	<5 ppm
pKa at 20°C	7.35-7.69



GHS07 Skin & Eye Irritation

Store dry at room temperature

Soluble in water

CAS 7365-45-9

HYDROXYUREA

SKU	Size
HDU0005	5g
HDU0025	25g
HDU0100	100g
HDU0250	250g

DNA replication inhibitor causing deoxyribonucleotide depletion CH4N2O2=76.05

Hydroxyurea is an anti-neoplastic which inactivates ribonucleoside reductase by forming a free radical nitroxide that binds a tyrosyl free radical in the active site of the enzyme. This blocks the synthesis of deoxynucleotides, which inhibits DNA synthesis and induces synchronization or cell death in S-phase.

Specifications

Appearance	White Crystalline Powder
Content by HPLC	>97.5
Water	>0.5%
Related substances	>0.2%
Residue on ignition	>0.1%
Heavy metals	>10ppm
Residue on ignition	>0.1%

Store at 2 -8°C in dark, dry place

CAS 127-07-1



Hygroscopic - do not breathe dust
GHS08 - GHS09



GHS07 Skin & Eye Irritation

HYGROMYCIN B (POWDER)

SKU	Size
HYG0500	500mg
HYG1000	1g
HYG5000	5g

C20H37N3O13=527.5

Specifications

Appearance	White Crystalline Powder
Identification (FTIR)	Positive
Solubility (100 mg/L)	Clear and colourless solution
Purity (HPLC)	>92%
Potency	>1000 µg/mg
Heavy metals	<20 ppm
Specific rotation	+22.1
Endotoxin	<10 EU/mg

Store at 2 - 8°C

CAS 31282-04-9



GHS05 Corrosive



GHS06 Acute toxicity

IPTG DIOXANE FREE

SKU	Size
IPTG005	5g
IPTG010	10g
IPTG025	25g
IPTG100	100g
IPTG250	250g

Isopropyl- β -D-1-Thiogalactopyranoside C9H18O5S=238.3

Specifications

Purity (HPLC)	99.9%
Purity (TLC)	One Spot
IR	Conform standard
Solubility (5%, H2O)	Clear and colourless solution
pH (5%, H2O)	6.0
Optical rotation (C=1, H2O)	-32.4
Melting point	111.5 - 112.4°C
Water KF	0.1%
Dioxane (GLC)*	<1 ppm
* Not used in manufacturing process	

Store dry at 2-8°C

Soluble in ethanol and water

CAS 367-93-1



KANAMYCIN MONOSULPHATE

SKU	Size
KAN0005	5g
KAN0025	25g

C18H36N4O11·H2SO4=582.6

Store dry at room temperature

Soluble in water

CAS 25389-94-0



Hygroscopic - do not breathe dust
GHS08 - GHS09

L(+)- SELENO METHIONINE

SKU	Size
SLM001	1g
SLM005	5g
SLM010	10g
SLM025	25g

C₅H₁₁NO₂Se=196.1

Specifications

Appearance	White Crystalline Powder
IR	Conform
TLC	Conform
Melting point	263-266°C
Optical rotation (C=1, 1N HCl)	Between +18.0 and +19.0
Assay (titration)	>98%
Moisture	<0.5%
Selenium content	(ICP or combustion): between 39 and 41% (40.2% theoretical)
Optical purity	minimum 99% L-isomer and max. 1% D-isomer (HPLC or GC-MS)
Particle size	60-80 mesh

Store at room temperature and keep container tightly closed

CAS 3211-76-5



GHS06 Acute toxicity

MES MONOHYDRATE

SKU	Size
MES01	100g
MES02	250g
MES03	500g
MES04	1000g
MES05	6 x 1kg

2-(N-Morpholino) Ethanesulfonic acid
 $C_6H_{13}NO_4S \cdot H_2O = 213.2$

Specifications

Appearance	White Crystalline Powder
Assay (Titration)	≥99%
Water Content	8.0-8.9%
pH 1% Di HB2BO	3.5-4.5
Solubility 0.1M water Clear	Colourless Solution
Residue On Ignition	≤0.1%
AB280B, 0.5M water	≤0.020
AB260B, 0.5M water	≤0.025
pKa 25	5.9-6.3
Heavy metals (Pb)	≤5ppm

Store dry at room temperature

Soluble in water

CAS 145224-94-8



GHS07 Skin & Eye Irritation

MES - SDS RUNNING BUFFER 20X

SKU	Size
MES-SDS0500	500ml
MES-SDS1000	1 Litre
MES-SDS5000	5 Litre

20 X sterile RNase free stock solution

Dilute 50 ml MES-SDS 20X into 950 ml of deionised water to make 1 litre of MES-SDS Running Buffer. Final concentration of 50mM MES, 50mM TRIS base, 3.47mM SDS and 1mM EDTA.

Specifications				
MES	1	M	195.2	g/L
TRIS	1	M	121.1	g/L
SDS	69.3	mM	20	g/L
EDTA Na2	20.5	mM	7.6	g/L

Store at room temperature
Keep away from light



GHS07 Skin & Eye Irritation

MOPS

SKU	Size
MOPS01	100g
MOPS02	250g
MOPS03	500g
MOPS04	1000g
MOPS05	6 x 1kg

4-Morpholino propanesulfonic acid C7H15NO4S=209.3

Specifications	
Appearance	White Crystalline Powder
Assay (Titration, Dry Base)	≥99.0%
Water Content by KF	≤1%
Infrared	Complies
Solubility 1M water	Clear colourless solution
pH 1% Di H2O	3.6 - 4.4 (25°C)
A280, 1M water	≤0.10
A260, 1M water	≤0.15



GHS07 Skin & Eye Irritation

Store dry at room temperature

Soluble in water

CAS 1132-61-2

MOPS - SDS RUNNING BUFFER 20X

SKU	Size
MES-SDS0500	500ml
MES-SDS1000	1 Litre
MES-SDS5000	5 Litre

20 X sterile RNase free stock solution

Dilute 50 ml MOPS-SDS 20X into 950 ml of deionised water to make 1 litre of MOPS-SDS Running Buffer. Final concentration is 50mM MOPS, 50mM TRIS base, 3.47mM SDS and 1mM EDTA.

Specifications				
MES	1	M	209.3	g/L
TRIS	1	M	121.1	g/L
SDS	69.3	mM	20	g/L
EDTA Na2	20.5	mM	7.6	g/L

Store at room temperature
Keep away from light



GHS07 Skin & Eye Irritation

TBS BUFFERED SALINE 10X, PH 7.4

SKU	Size
TBSL0500-7.4	500ml
TBSL1000-7.4	1 Litre
TBSL5000-7.4	5 Litre

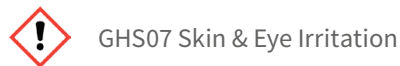
10 X sterile stock solution

Dilute 100ml TBS Buffered Saline 10X into 900ml deionised water to make 1 litre of TBS Saline Buffer 1 X.

Final concentration is 0.1 M Tris Buffer and 0.14 M Sodium chloride, pH 7.4.

Specifications		
TRIS Buffer	1.0 M	121.4 g/L
Sodium Chloride	1.4 M	81.9 g/L

Store at room temperature
Keep away from light



GHS07 Skin & Eye Irritation

TBS BUFFERED SALINE 10X, PH 7.6

SKU	Size
TBSL0500-7.6	500ml
TBSL1000-7.6	1 Litre
TBSL5000-7.6	5 Litre

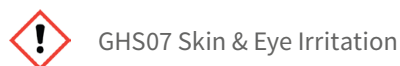
10 X sterile stock solution

Dilute 100ml TBS Buffered Saline 10X into 900ml deionised water to make 1 litre of TBS Saline Buffer 1 X.

Final concentration is 0.1 M Tris Buffer and 0.14 M Sodium chloride, pH 7.6.

Specifications		
TRIS Buffer	1.0 M	121.4 g/L
Sodium Chloride	1.4 M	81.9 g/L

Store at room temperature
Keep away from light



GHS07 Skin & Eye Irritation

TBS BUFFERED SALINE 10X, PH 7.8

SKU	Size
TBSL0500-7.8	500ml
TBSL1000-7.8	1 Litre
TBSL5000-7.8	5 Litre

10 X sterile stock solution


Dilute 100ml TBS Buffered Saline 10X into 900ml deionised water to make 1 litre of TBS Saline Buffer 1 X.

Final concentration is 0.1 M Tris Buffer and 0.14 M Sodium chloride, pH 7.8.

Specifications		
TRIS Buffer	1.0 M	121.4 g/L
Sodium Chloride	1.4 M	81.9 g/L

Store at room temperature
Keep away from light



 GHS07 Skin & Eye Irritation

TBS BUFFERED SALINE 10X, PH 8

SKU	Size
TBSL0500-7.8	500ml
TBSL1000-7.8	1 Litre
TBSL5000-7.8	5 Litre

10 X sterile stock solution


Dilute 100ml TBS Buffered Saline 10X into 900ml deionised water to make 1 litre of TBS Saline Buffer 1 X.

Final concentration is 0.1 M Tris Buffer and 0.14 M Sodium chloride, pH 8.

Specifications		
TRIS Buffer	1.0 M	121.4 g/L
Sodium Chloride	1.4 M	81.9 g/L

Store at room temperature
Keep away from light



 GHS07 Skin & Eye Irritation

TRIS GLYCINE BUFFER 10X

SKU	Size
TGS0500	500ml
TGS1000	1 Litre
TGS5000	5 Litre

Tris Glycine Transfer Buffer 10X sterile stock solution.

Dilute 100ml Tris Glycine Transfer Buffer 10X with 900 ml deionised water to make 1 litre of Tris Glycine Buffer.

Final concentration is 25 mM Tris Base, 0.192 M Glycine and 1g/l SDS.

pH, 20 C. 8.33 ± 0.05 at 1 x use rate

Final concentration after diluting		
TRIS	0.25M30.3	g/L
Glycine	1.92M144.1	g/L
SDS	10.0	g/L

Store at room temperature
Keep away from light



GHS07 Skin & Eye Irritation

PHOSPHATE BUFFERED SALINE

SKU	Size
PBS10L	10L Pack - 99.3g
PBS20L	20L Pack - 198.6g
PBS100L	100L Pack - 993g

pH 7.4 premix

Reliable, quick and no pH adjustment necessary. A 10L pack (99.3g) in one litre is 10X; at this strength the pH is around 6.8/6.9, do not adjust this pH as on dilution to 1X the pH automatically adjusts to 7.4 which we determine during production.

Store at room temperature



GHS07 Skin & Eye Irritation

RNASEZERO

SKU	Size
RZ500	500ml

RNaseZero is a ready to use solution.

Completely removes RNase contamination from glass, plastic and stainless steel surfaces





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