

1. Identification of Substance

Product and Company Identification

Product Name: Reagent Kits List:

General Chemistry I Lyophilized Kit

(TP, ALB, TBIL, DBIL, ALT, AST, CRE, UREA, UA, TG, CHOL, GLU, HDL-C)

Clinical Emergency Lyophilized Kit

(AST, CK, CK-MB, LDH, α -HBDH, AMY, CRE, UA, CO₂, K⁺, Na⁺, Cl⁻, GLU)

Renal Function Panel Lyophilized Kit

(ALB, CRE, UREA, UA, CO₂, Ca²⁺, P)

Liver Function Panel Lyophilized Kit

(TP, ALB, TBIL, DBIL, ALT, AST, GGT, ALP)

Myocardial Enzyme Panel Lyophilized Kit

(AST, CK, CK-MB, LDH, α -HBDH)

Electrolyte Panel Lyophilized Kit

(CO₂, K⁺, Na⁺, Ca²⁺, P, Mg²⁺, Cl⁻)

Glucose and lipid Panel Lyophilized Kit

(TG, CHOL, HDL-C, GLU, GSP)

General Chemistry II Lyophilized Kit

(AMY, CRE, UREA, CO₂, K⁺, Na⁺, Cl⁻, GLU)

Liver and Renal Function Lyophilized Kit

(TP, ALB, TBIL, ALT, AST, GGT, CRE, UREA, GLU)

General Chemistry IV Lyophilized Kit

(TP, ALB, TBIL, DBIL, ALT, AST, UREA, CRE, UA, GLU, TG, CHOL, HDL-C, GGT, ALP)

General Chemistry V Lyophilized Kit

(ALT, AST, UREA, CRE, CK, CK-MB, LDH, GGT, ALP)

Ammonia Panel Lyophilized Kit

(NH₃)

Effective: 13/11/2023

Catalogue Number: MNCHIP reagent disc types

Manufacturer: 1-4F,Area,No.122 Dongting Rd,Development Zone,300457 Tianjin
P.R.China

Emergency Call: +86 (0)22 59861168

2. Hazards Identification

Inhalation May cause respiratory tract irritation
 Skin May cause skin irritation
 Eyes May cause eye irritation

Potential Health Effects:

EU	US OSHA	WHMIS
Xi; R36/37/38	Yes	Exempt

Reactivity: Minima risk

Hazard Symbol: Not Regulated as a dangerous or hazardous substance.

Risk Codes: None required

Environment: Keep away from drains, surface and ground water, and soil to avoid possible contamination.

3. Composition and Information on Ingredients

This product consists of reagent beads comprised of a mixture of low hazard lyophilized chemical beads enclosed in a plastic rotor. These beads are in concentrations not associated with human or environmental toxicity, which contain among the listed items, enzymes, preservatives and stabilizers in concentrations under 1%. Each rotor contains a cup of diluent containing less than 0.5 ml of water and preservatives in concentrations of less than 1%.

Hazardous Ingredients per EU Quaternary Ammonium Salts<6.5% criteria:

General Chemistry I Lyophilized Kit

Material Name	CAS No.	Character
2,4,6-Tribromo-3-hydroxybenzoic acid	14348-40-4	White crystal
Sodium 3,5-dichloro-2-hydroxybenzenesulfonate	54970-72-8	White Powder
4-Aminoantipyrine hydrochloride	22198-72-7	Yellowish powder
ADP Potassium-salt	72696-48-1	White Powder
D-lactate dehydrogenase	1.1.1.28	Yellow suspension
D-sorbitol	50-70-4	Yellow liquid
L-alanine	56-41-7	White Powder

Material Safety Data Sheet

L-aspartic acid	56-84-8	White Powder
NADH	58-68-4	White Powder
NADP Sodium salt	53-59-8	White Powder
N-Tris(hydroxymethyl)methyl-3-aminopropanesulfonic acid	29915-38-6	White Powder
α -ketoglutaric acid	328-50-7	White Powder
Cholesterol dehydrogenase	9035-82-9	White Powder
Cholesterol esterase (ChE), hydrolyzing enzyme in blood plasma	3.1.1.13	White Powder
Bilirubin oxidase	1.3.3.5	White Powder
Sodium cholate	361-09-1	White Powder
Potassium iodide	7681-11-0	White Powder
N-Ethyl-N(2-hydroxy-3-sulfopropyl)-3-methylaniline sodium salt	82692-93-1	White Powder
Cholesterol oxidase	9028-76-6	Yellow suspension
Glutamate dehydrogenase (GDH), an amino acid	1.4.1.3	White Powder
Peroxidase	1.11.1.7	reddish-brown powder
Sarcosine oxidase (SAMO), an amino acid oxidase	1.5.3.1	Yellow powder
Creatininase	3.5.2.10	White powder
Creatinase	3.5.3.3	White powder
Hexokinase (a protein called hexokinase)	2.7.1.1	White powder
Potassium sodium tartrate $\cdot 4H_2O$	6381-59-5	White powder
Ascorbase	1.10.3.3	Light blue powder
Magnesium sulfate	7487-88-9	White powder
Magnesium chloride hexahydrate	7791-18-6	White powder
Dicalcium phosphate	7447-40-7	White powder
Common salt	7647-14-5	White powder
Urease	3.5.1.5	White powder
Uricase (enzyme)	1.7.3.3	White powder
Citrate	77-92-9	White powder
Malate dehydrogenase	1.1.1.37	White powder
Dextran sulfate sodium sulfate	9011-18-1	White powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
Sodium hydroxide	1310-73-2	White powder
Adenosine triphosphate (ATP)	51963-61-2	White powder
Sodium carbonate	497-19-8	White powder
Copper sulfate pentahydrate	7758-99-8	Blue solid
Bromocresol green	76-60-8	Yellow solid
Potassium ferrocyanide	13943-58-3	Yellow crystal
Oxidative coenzyme I	53-84-9	White powder
Glycerol-3-Phosphate Dehydrogenase	1.1.1.8	White suspension
Glycerol kinase	2.7.1.30	White powder
Lipoprotein esterase	3.1.1.34	White powder
Diaphorase	1.6.5.2	White powder
Iodonitrotetrazolium chloride	146-68-9	Yellow powder
Buffer, excipients, and surfactant	—	—

Material Safety Data Sheet

Clinical Emergency Lyophilized Kit

Material Name	CAS No.	Character
2,4,6-Tribromo-3-hydroxybenzoic acid	14348-40-4	White crystal
2-Chloro-4-nitrophenol maltoside	---	Yellowish powder
Sodium 2-oxobutanoate	2013-26-5	White Powder
Sodium 3,5-dichloro-2-hydroxybenzenesulfonate	54970-72-8	White Powder
4-Aminoantipyrine hydrochloride	22198-72-7	Yellowish powder
ADP potassium salt	72696-48-1	White Powder
AMP	61-19-8	White Powder
AP5A	75522-97-3	White Powder
CKMM Antibody	—	Liquid
D-glucose	50-99-7	White Powder
D-Lactate dehydrogenase	1.1.1.28	Yellow suspension
L-Aspartic acid	56-84-8	White Powder
NADH	58-68-4	White Powder
NADP Sodium salt	53-59-8	White Powder
N-Tris(hydroxymethyl)methyl-3-aminopropanesulfonic acid	29915-38-6	White Powder
N-Acetyl-L-cysteine	616-91-1	White Powder
Alpha-amylase	3.2.1.1	Yellow liquid
α -ketoglutaric acid	328-50-7	White Powder
β -Galactosidase	3.2.1.23	Yellow powder
Pyruvate kinase (PK)	2.7.1.40	White powder
Sodium oxalate	565-73-1	White powder
Sodium cholate	361-09-1	White Powder
Iodonitrotetrazolium chloride blue	146-68-9	Yellow powder
Adenosine diphosphate (ADP)	58-64-0	White powder
Glutamate dehydrogenase (GDH), an amino acid	1.4.1.3	White Powder
Peroxidase	1.11.1.7	reddish-brown powder
Diaphorase(enzyme)	1.6.5.2	Yellowish powder
Sarcosine oxidase (SAMO), an amino acid oxidase	1.5.3.1	Yellow powder
Creatininase	3.5.2.10	White powder
Creatinase	3.5.3.3	White powder
Hexokinase (a protein called hexokinase)	2.7.1.1	White powder
Ascorbase	1.10.3.3	Light blue powder
o-Nitrophenyl β -D-galactopyranoside	369-07-3	White solid
Creatine phosphate	922-32-7	White solid
Phosphoenolpyruvic acid	4265-07-0	White powder
Phosphoenolpyruvate carboxylase	9067-77-0	White powder
Magnesium sulfate	7487-88-9	White powder
Magnesium chloride hexahydrate	7791-18-6	White powder
lithium chloride	7447-41-8	White solid

Material Safety Data Sheet

Manganese chloride (MnCl ₂)	7773-01-5	Pink powder
Imidazole	288-32-4	White powder
Uricase (enzyme)	1.7.3.3	White powder
Trisodium citrate dihydrate compound	114456-61-0	White powder
Malate dehydrogenase	1.1.1.37	White powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
lithium lactate	867-55-0	White powder
Adenosine triphosphate (ATP)	51963-61-2	White powder
Lithium hydroxide anhydrous	1310-65-2	White solid
Cryptand	31364-42-8	liquid
Potassium ferrocyanide	13943-58-3	Yellow crystal
Oxidative Coenzyme I	53-84-9	White powder
Magnesium acetate tetrahydrate	16674-78-5	White powder
Buffer, excipients, and surfactant	—	—

Renal Function Panel Lyophilized Kit

Material Name	CAS No.	Character
2,4,6-Tribromo-3-hydroxybenzoic acid	14348-40-4	white crystal
Sodium 3,5-dichloro-2-hydroxybenzenesulfonate	54970-72-8	White Powder
4-Aminoantipyrine hydrochloride	22198-72-7	Yellowish powder
8-Hydroxyquinoline-5-sulfonic acid	207386-92-3	White solid
ADP potassium salt	72696-48-1	White Powder
NADH	58-68-4	White Powder
NAD sodium salt	20111-18-6	White solid
N-Tris(hydroxymethyl)methyl-3-aminopropanesulfonic acid	29915-38-6	White Powder
α-D-Glucose-1,6-diphosphate tetrakis(cyclohexylammonium) salt hydrate	71662-13-0	White powder
α-ketoglutaric acid	328-50-7	White Powder
β-Phosphoglucose mutase	5.4.2.6	White powder
Sodium oxalate	565-73-1	White powder
Sodium cholate	361-09-1	White Powder
Glutamate dehydrogenase (GDH), an amino acid	1.4.1.3	White Powder
Peroxidase	1.11.1.7	reddish-brown powder
Sarcosine oxidase (SAMO), an amino acid oxidase	1.5.3.1	Yellow powder
Creatininase	3.5.2.10	White powder
Creatinase	3.5.3.3	White powder
Ascorbase	1.10.3.3	Light blue powder
Phosphoenolpyruvic acid	4265-07-0	White powder
Phosphoenolpyruvate carboxylase	9067-77-0	White powder
Magnesium sulfate	7487-88-9	White powder
Magnesium chloride hexahydrate	7791-18-6	White powder
Dicalcium phosphate	7447-40-7	White powder
Maltose (sweet syrup)	6363-53-7	Powder

Material Safety Data Sheet

Maltose phosphorylase	2.4.1.8	White powder
Urease	3.5.1.5	White powder
Uricase (enzyme)	1.7.3.3	White powder
Arsenic azo III	1668-00-4	Purple brown powder
Piperazine-N,N-bis(2-ethanesulfonic acid)	5625-37-6	White powder
Malate dehydrogenase	1.1.1.37	White powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
Bromocresol green	76-60-8	Yellow solid
Potassium ferrocyanide	13943-58-3	Yellow crystal
Buffer, excipients, and surfactant	—	—

Liver Function Panel Lyophilized Kit

Material Name	CAS No.	Character
D-Lactate dehydrogenase	1.1.1.28	Yellow suspension
L-r-Glutamyl-3-carboxy-4-nitroaniline	63699-78-5	Yellowish powder
L-Alanine	56-41-7	White Powder
L-Aspartic acid	56-84-8	White Powder
NADH	58-68-4	White Powder
α -ketoglutaric acid	328-50-7	White Powder
bilirubin oxidase	1.3.3.5	White Powder
Sodium cholate	361-09-1	White Powder
Potassium iodide	7681-11-0	White Powder
glycylglycine (Gly), an amino acid	556-50-3	White Powder
4-Nitrophenylphosphoric acid bis(trimethylolvanamide) salt hydrate	68189-42-4	Solid
Potassium sodium tartrate $\cdot 4H_2O$	6381-59-5	White powder
Polyoxyethylene(23) lauryl ether	9002-92-0	Transparent oily liquid
Malate dehydrogenase	1.1.1.37	White powder
Sodium hydroxide	1310-73-2	White powder
Sodium carbonate	497-19-8	White powder
Copper sulfate pentahydrate	7758-99-8	Blue solid
Bromocresol green	76-60-8	Yellow solid
Buffer, excipients, and surfactant	—	—

Myocardial Enzyme Panel Lyophilized Kit

Material Name	CAS No.	Character
Sodium 2-oxobutanoate	2013-26-5	White Powder
ADP potassium salt	72696-48-1	White Powder
AMP	61-19-8	White Powder
AP5A	75522-97-3	White Powder
CKMM Antibody	—	Liquid
D-trehalose	6138-23-4	White Powder

Material Safety Data Sheet

D-glucose	50-99-7	White Powder
D-Lactate dehydrogenase	1.1.1.28	Yellow suspension
L-Aspartic acid	56-84-8	White Powder
NADH	58-68-4	White Powder
NADP Sodium salt	53-59-8	White Powder
N-Acetyl-L-cysteine	616-91-1	White Powder
α -ketoglutaric acid	328-50-7	White Powder
Sodium cholate	361-09-1	White Powder
Iodonitrotetrazolium chloride blue	146-68-9	Yellow powder
Adenosine diphosphate (ADP)	58-64-0	White powder
Diaphorase(enzyme)	1.6.5.2	Yellowish powder
Hexokinase (a protein called hexokinase)	2.7.1.1	White powder
Potassium dihydrogen phosphate	7778-77-0	White powder
Creatine phosphate	922-32-7	White solid
Magnesium sulfate	7487-88-9	White powder
Dicalcium phosphate	7447-40-7	White powder
Imidazole	288-32-4	White powder
Malate dehydrogenase	1.1.1.37	White powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
Oxidative coenzyme I	53-84-9	White powder
Magnesium acetate tetrahydrate	16674-78-5	White powder
Buffer, excipients, and surfactant	—	—

Electrolyte Panel Lyophilized Kit

Material Name	CAS No.	Character
2-Chloro-4-nitrophenol maltoside	---	Yellowish powder
8-Hydroxyquinoline-5-sulfonic acid	207386-92-3	White solid
ATP Na salt	34369-07-8	White Powder
D-glucose	50-99-7	White Powder
D-Lactate dehydrogenase	1.1.1.28	Yellow suspension
NADH	58-68-4	White Powder
NADP Sodium salt	53-59-8	White Powder
NAD sodium salt	20111-18-6	White solid
N-Acetyl-L-cysteine	616-91-1	White Powder
α -D-Glucose-1,6-diphosphate tetrakis(cyclohexylammonium) salt hydrate	71662-13-0	White powder
Alpha-amylase	3.2.1.1	Yellow liquid
α -ketoglutaric acid	328-50-7	White Powder
β -Galactosidase	3.2.1.23	Yellow powder
β -Phosphoglucose mutase	5.4.2.6	White powder
Pyruvate kinase (PK)	2.7.1.40	White powder
Sodium oxalate	565-73-1	White powder
Sodium cholate	361-09-1	White Powder

Material Safety Data Sheet

Adenosine diphosphate (ADP)	58-64-0	White powder
Glutamate dehydrogenase (GDH), an amino acid	1.4.1.3	White Powder
Hexokinase (a protein called hexokinase)	2.7.1.1	White powder
Polyethylene glycol 3350	25322-68-3	Transparent viscous liquid
Polyethylene glycol 8000	25322-68-3	Transparent viscous liquid
o-Nitrophenyl β-D-galactopyranoside	369-07-3	White solid
Phosphoenolpyruvic acid	4265-07-0	White powder
Phosphoenolpyruvate carboxylase	9067-77-0	White powder
Magnesium sulfate	7487-88-9	White powder
Magnesium chloride hexahydrate	7791-18-6	White powder
Dicalcium phosphate	7447-40-7	White powder
Manganese chloride (MnCl ₂)	7773-01-5	Pink powder
Morpholineethanesulfonic acid (MSA)	4432-31-9	White powder
Maltose (sweet syrup)	6363-53-7	Powder
Maltose phosphorylase	2.4.1.8	White powder
Arsenic azo III	1668-00-4	Purple brown powder
Malate dehydrogenase	1.1.1.37	White powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
Lithium hydroxide anhydrous	1310-65-2	White solid
Cryptand	31364-42-8	liquid
Buffer, excipients, and surfactant	—	—

Glucose and lipid Panel Lyophilized Kit

Material Name	CAS No.	Character
ATP Na salt	34369-07-8	White Powder
NADP Sodium salt	53-59-8	White Powder
NAD sodium salt	20111-18-6	White solid
Cholesterol dehydrogenase	9035-82-9	White Powder
Cholesterol esterase (ChE), hydrolyzing enzyme in blood plasma	3.1.1.13	White Powder
Iodonitrotetrazolium chloride blue	146-68-9	Yellow powder
Glycerol-3-phosphate dehydrogenase	9046-28-0	Yellow powder
Glycerol kinase	2.7.1.30	White powder
N-Ethyl-N(2-hydroxy-3-sulfopropyl)-3-methylaniline sodium salt	82692-93-1	White Powder
Cholesterol oxidase	9028-76-6	Yellow suspension
Diaphorase(enzyme)	1.6.5.2	Yellowish powder
Hexokinase (a protein called hexokinase)	2.7.1.1	White powder
Magnesium sulfate	7487-88-9	White powder
Magnesium chloride hexahydrate	7791-18-6	White powder
lithium chloride	7447-41-8	White solid

Material Safety Data Sheet

Sodium dextran sulfate	9011-18-1	White powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
Adenosine triphosphate (ATP)	51963-61-2	White powder
Sodium carbonate	497-19-8	White powder
Nitrotetrazole Blue	298-83-9	Yellow powder
Oxidative coenzyme I	53-84-9	White powder
lipoprotein lipase	3.1.1.34	White powder
Buffer, excipients, and surfactant	—	—

General Chemistry II Lyophilized Kit

Material Name	CAS No.	Character
2,4,6-Tribromo-3-hydroxybenzoic acid	14348-40-4	white crystal
2-Chloro-4-nitrophenol maltodioside	---	Yellowish powder
4-Aminoantipyrine hydrochloride	22198-72-7	Yellowish powder
ADP potassium salt	72696-48-1	White Powder
D-Lactate dehydrogenase	1.1.1.28	Yellow suspension
EGTA	67-42-5	White Powder
NADH	58-68-4	White Powder
NADP Sodium salt	53-59-8	White Powder
N-Tris(hydroxymethyl)methyl-3-aminopropanesulfonic acid	29915-38-6	White Powder
N-Acetyl-L-cysteine	616-91-1	White Powder
Alpha-amylase	3.2.1.1	Yellow liquid
α -ketoglutaric acid	328-50-7	White Powder
β -Galactosidase	3.2.1.23	Yellow powder
Pyruvate kinase (PK)	2.7.1.40	White powder
Sodium oxalate	565-73-1	White powder
Adenosine diphosphate (ADP)	58-64-0	White powder
Glutamate dehydrogenase (GDH), an amino acid	1.4.1.3	White Powder
Peroxidase	1.11.1.7	reddish-brown powder
Sarcosine oxidase (SAMO), an amino acid oxidase	1.5.3.1	Yellow powder
Creatininase	3.5.2.10	White powder
Creatinase	3.5.3.3	White powder
Hexokinase (a protein called hexokinase)	2.7.1.1	White powder
Ascorbase	1.10.3.3	Light blue powder
o-Nitrophenyl β -D-galactopyranoside	369-07-3	White solid
Phosphoenolpyruvic acid	4265-07-0	White powder
Phosphoenolpyruvate carboxylase	9067-77-0	White powder
Magnesium sulfate	7487-88-9	White powder
Magnesium chloride hexahydrate	7791-18-6	White powder
lithium chloride	7447-41-8	White solid
Manganese chloride (MnCl ₂)	7773-01-5	Pink powder
Urease	3.5.1.5	White powder

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Malate dehydrogenase	1.1.1.37	White powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
Adenosine triphosphate (ATP)	51963-61-2	White powder
Cryptand	31364-42-8	liquid
Potassium ferrocyanide	13943-58-3	Yellow crystal
Ethylenediaminetetraacetic acid	60-00-4	White powder
Calcium acetate monohydrate	5743-26-0	White powder
Buffer, excipients, and surfactant	—	—

Liver and Renal Function Lyophilized Kit

Material Name	CAS No.	Character
2,4,6-Tribromo-3-hydroxybenzoic acid	14348-40-4	White crystal
4-Aminoantipyrine hydrochloride	22198-72-7	Yellowish powder
ADP potassium salt	72696-48-1	White Powder
D-Lactate dehydrogenase	1.1.1.28	Yellow suspension
L-r-Glutamyl-3-carboxy-4-nitroaniline	63699-78-5	Yellowish powder
L-Alanine	56-41-7	White Powder
L-Aspartic acid	56-84-8	White Powder
NADH	58-68-4	White Powder
NADP Sodium salt	53-59-8	White Powder
N-Tris(hydroxymethyl)methyl-3-aminopropanesulfonic acid	29915-38-6	White Powder
α -ketoglutaric acid	328-50-7	White Powder
Bilirubin oxidase	1.3.3.5	White Powder
Sodium cholate	361-09-1	White Powder
Potassium iodide	7681-11-0	White Powder
Glycylglycine (Gly), an amino acid	556-50-3	White Powder
Glutamate dehydrogenase (GDH), an amino acid	1.4.1.3	White Powder
Peroxidase	1.11.1.7	reddish-brown powder
Sarcosine oxidase (SAMO), an amino acid oxidase	1.5.3.1	Yellow powder
Creatininase	3.5.2.10	White powder
Creatinase	3.5.3.3	White powder
Hexokinase (a protein called hexokinase)	2.7.1.1	White powder
Potassium sodium tartrate $\cdot 4H_2O$	6381-59-5	White powder
Polyoxyethylene(23) lauryl ether	9002-92-0	Transparent oily liquid
Ascorbase	1.10.3.3	Light blue powder
Magnesium sulfate	7487-88-9	White powder
Dicalcium phosphate	7447-40-7	White powder
Urease	3.5.1.5	White powder
Malate dehydrogenase	1.1.1.37	White powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
Sodium hydroxide	1310-73-2	White powder

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Adenosine triphosphate (ATP)	51963-61-2	White powder
Sodium carbonate	497-19-8	White powder
Copper sulfate pentahydrate	7758-99-8	Blue solid
Bromocresol green	76-60-8	Yellow solid
Potassium ferrocyanide	13943-58-3	Yellow crystal
Buffer, excipients, and surfactant	—	—

General Chemistry IV Lyophilized Kit

Material Name	CAS No.	Character
2,4,6-Tribromo-3-hydroxybenzoic acid	14348-40-4	white crystal
Sodium 3,5-dichloro-2-hydroxybenzenesulfonate	54970-72-8	White Powder
4-Aminoantipyrine hydrochloride	22198-72-7	Yellowish powder
ADP potassium salt	72696-48-1	White Powder
D-Lactate dehydrogenase	1.1.1.28	Yellow suspension
L-r-Glutamyl-3-carboxy-4-nitroaniline	63699-78-5	Yellowish powder
L-Alanine	56-41-7	White Powder
L-Aspartic acid	56-84-8	White Powder
NADH	58-68-4	White Powder
NADP Sodium salt	53-59-8	White Powder
N-Tris(hydroxymethyl)methyl-3-aminopropanesulfonic acid	29915-38-6	White Powder
α -ketoglutaric acid	328-50-7	White Powder
Cholesterol dehydrogenase	9035-82-9	White Powder
Cholesterol esterase (ChE), hydrolyzing enzyme in blood plasma	3.1.1.13	White Powder
Bilirubin oxidase	1.3.3.5	White Powder
Sodium cholate	361-09-1	White Powder
Potassium iodide	7681-11-0	White Powder
Glycylglycine (Gly), an amino acid	556-50-3	White Powder
N-Ethyl-N(2-hydroxy-3-sulfopropyl)-3-methylaniline sodium salt	82692-93-1	White Powder
Cholesterol oxidase	9028-76-6	Yellow suspension
Glutamate dehydrogenase (GDH), an amino acid	1.4.1.3	White Powder
Peroxidase	1.11.1.7	reddish-brown powder
Sarcosine oxidase (SAMO), an amino acid oxidase	1.5.3.1	Yellow powder
Creatininase	3.5.2.10	White powder
Creatinase	3.5.3.3	White powder
Hexokinase (a protein called hexokinase)	2.7.1.1	White powder
4-Nitrophenylphosphoric acid bis(trimethylolvanamide) salt hydrate	68189-42-4	Solid
Potassium sodium tartrate $\cdot 4H_2O$	6381-59-5	White powder
Ascorbase	1.10.3.3	Light blue powder
Magnesium sulfate	7487-88-9	White powder
Magnesium chloride hexahydrate	7791-18-6	White powder
Dicalcium phosphate	7447-40-7	White powder
Common salt	7647-14-5	White powder
Urease	3.5.1.5	White powder

Material Safety Data Sheet

Uricase (enzyme)	1.7.3.3	White powder
Malate dehydrogenase	1.1.1.37	White powder
Sodium dextran sulfate	9011-18-1	White powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
Sodium hydroxide	1310-73-2	White powder
Adenosine triphosphate (ATP)	51963-61-2	White powder
Sodium carbonate	497-19-8	White powder
Copper sulfate pentahydrate	7758-99-8	Blue solid
Bromocresol green	76-60-8	Yellow solid
Potassium ferrocyanide	13943-58-3	Yellow crystal
Oxidative coenzyme I	53-84-9	White powder
Glycerol-3-Phosphate Dehydrogenase	1.1.1.8	White suspension
Glycerol kinase	2.7.1.30	White powder
Lipoprotein esterase	3.1.1.34	White powder
Diaphorase	1.6.5.2	White powder
Iodonitrotetrazolium chloride	146-68-9	Yellow powder
Buffer, excipients, and surfactant	—	—

General Chemistry V Lyophilized Kit

Material Name	CAS No.	Character
2,4,6-Tribromo-3-hydroxybenzoic acid	14348-40-4	white crystal
4-Aminoantipyrine hydrochloride	22198-72-7	Yellowish powder
ADP potassium salt	72696-48-1	White Powder
AMP	61-19-8	White Powder
AP5A	75522-97-3	White Powder
CKMM Antibody	—	Liquid
D-glucose	50-99-7	White Powder
D-Lactate dehydrogenase	1.1.1.28	Yellow suspension
L-r-Glutamyl-3-carboxy-4-nitroaniline	63699-78-5	Yellowish powder
L-Alanine	56-41-7	White Powder
L-Aspartic acid	56-84-8	White Powder
NADH	58-68-4	White Powder
NADP Sodium salt	53-59-8	White Powder
N-Tris(hydroxymethyl)methyl-3-aminopropanesulfonic acid	29915-38-6	White Powder
N-Acetyl-L-cysteine	616-91-1	White Powder
α -ketoglutaric acid	328-50-7	White Powder
Sodium cholate	361-09-1	White Powder
Iodonitrotetrazolium chloride blue	146-68-9	Yellow powder
Adenosine diphosphate (ADP)	58-64-0	White powder
Glycylglycine (Gly), an amino acid	556-50-3	White Powder
Glutamate dehydrogenase (GDH), an amino acid	1.4.1.3	White Powder
Peroxidase	1.11.1.7	reddish-brown powder
Diaphorase(enzyme)	1.6.5.2	Yellowish powder

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Sarcosine oxidase (SAMO), an amino acid oxidase	1.5.3.1	Yellow powder
Creatininase	3.5.2.10	White powder
Creatinase	3.5.3.3	White powder
Hexokinase (a protein called hexokinase)	2.7.1.1	White powder
4-Nitrophenylphosphoric acid bis(trimethylolvanamide) salt hydrate	68189-42-4	Solid
Ascorbase	1.10.3.3	Light blue powder
Creatine phosphate	922-32-7	White solid
Magnesium sulfate	7487-88-9	White powder
Dicalcium phosphate	7447-40-7	White powder
Imidazole	288-32-4	White powder
Urease	3.5.1.5	White powder
Malate dehydrogenase	1.1.1.37	White powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
Potassium ferrocyanide	13943-58-3	Yellow crystal
Oxidative coenzyme I	53-84-9	White powder
Magnesium acetate tetrahydrate	16674-78-5	White powder
Buffer, excipients, and surfactant	—	—

Ammonia Panel Lyophilized Kit

Material Name	CAS No.	Character
Glutamate dehydrogenase (GDH), an amino acid	1.4.1.3	White Powder
NADH	58-68-4	White Powder
Adenosine diphosphate (ADP)	58-64-0	White powder
Potassium dihydrogen phosphate	7778-77-0	White powder
Disodium hydrogenphosphate	10039-32-4	White powder
α -ketoglutaric acid	328-50-7	White Powder
Buffer, excipients, and surfactant	—	—

4. First Aid Measures

In case of eye contact:	Flush eyes with copious amounts of water for a minimum of 15 minutes
In case of inhalation:	Allow the victim to rest in a well-ventilated area. Seek immediate medical attention
In case of skin contact:	Flush exposed skin with copious amounts of water for a minimum of 15 minutes
In case of ingestion:	Contact a physician in case of ingestion

5. Fire-Fighting Measures

No flammable properties are associated with this product.

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Extinguishing media:	Use water spray, dry chemical or carbon dioxide
Special protective equipment for firefighters:	Wear self-contained breathing apparatus for firefighting if necessary
Hazardous combustion products:	May result in the formation of nitrogen and carbon oxides
Additional information:	Combustion of the plastic rotor containing this preparation may result in toxic particulates and gases.

6. Accidental Release Measures

Personal Precautions:

Eye Protection	Wear safety goggles or a face shield when cleaning up spills
Skin Protection	Wear protective attire that prevents contamination of skin and personal clothing
Hand Protection	Wear nitrile or vinyl gloves that cover exposed skin
Other Protections	Avoid breathing mists, dusts, and aerosols

Clean-up Measures:

Contain the material to prevent it from becoming airborne
Place absorbent material on top of, and around the perimeter of the spill
Sweep up the spilled material and decontaminate the area with soap and water or an equivalent cleaner

Environmental Precautions:

Prevent spilled product from entering drains

7. Handling and Storage

This product is to be stored inside its packaging at 2-8°C in a cool, dry location. Wear gloves when handling the product and wash hands after removing gloves.

8. Exposure Controls and Personal Protection

Engineering Controls:	Provide ventilation in work areas where this product is handled.
Respiratory Protection:	Under normal conditions. No respiratory protection is required of the use of this product.
Hand Protection:	Impervious gloves recommended
Eye Protection:	Safety glasses or goggles recommended
Skin Protection:	Laboratory coat or appropriate clothing recommended

9. Chemical and Physical Properties

Material Safety Data Sheet

Physical state:	Solid. Spherical lyophilized beads are enclosed in a sealed plastic package
Color:	Multi-colored beads
Odor:	Odorless
Odor threshold:	None established
Chemical Properties:	None available for: <ul style="list-style-type: none">● pH, Melting point● Boiling point● Flash point● Lower Explosive Limit● Upper Explosive Limit● Vapor pressure● Vapor density (air=1)● Density (g/cm³)● Water solubility (20°C in g/l)● Auto ignition temperature

10. Stability and Reactivity

Reactivity:	This preparation is not known to be reactive violently
Chemical Stability:	This preparation is known to be chemically stable
Conditions to Avoid:	Sunlight, heat (temperatures above 32°C)
Incompatible Materials:	No data available
Hazardous Decomposition Products:	No harmful decomposition products known
Storage Conditions:	Store in a cool (2-8°C), dry location

11. Toxicological Information

Toxicity Data	N/A
Potential Effects of Acute Exposure	May cause irritation of the nose, throat, skin, and eyes.
Potential Effects of Chronic Exposure	Long-term exposure may result in liver toxic.
Symptoms of Overexposure	Chronic overexposure may produce effects similar to acute exposure.
Carcinogenicity	This product does not contain a reportable concentration($\geq 0.1\%$) of any ingredient listed as carcinogen by 67/548/EEC Annex I.

No information found. This preparation is very soluble in water, and is not anticipated to present adverse ecotoxicological effects.

12. Disposal Considerations

Waste Treatment Methods:	Check regional waste requirements
Waste Treatment Options:	Treatment options approved by local authorities
Sewage Disposal Options:	Check with local authorities before discharge to the sewer
Other Disposal Recommendations	Dispose of according to local, state, and national regulatory requirements

13. Transport Information

Follow federal and local regulations.

Transportation of this product not regulated according to the definition of hazardous in 49CFR(US DOT). Transportation of this product is also not regulated by IATA, ICAO, Canadian TDG or European ADR.

14. Regulatory Information

SARA 313	No compounds listed.
CERCLA RG's,40 CFR 302.4	No compounds listed.
California Proposition 65	No compounds listed.
Massachusetts MSL	No compounds listed.
New Jersey Dept. of Health RTK List	No compounds listed.
Pennsylvania RTK	No compounds listed.

EU Labeling Classification

Xi



R36/37/38 Irritating to eyes and skin

15. Other Information

The above information is believed to be correct but does not purport to be inclusive and shall be used only as a guide. MNCHIP makes no warranty or representation as to its accuracy or validity. Users should consider these data only as supplement to other information gathered by them and must make independent determination of the suitability and completeness of information from all sources to ensure proper use and disposal of these materials and for the safety and health of employees and customers.

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