

## Identification of Substance

Product Name: Reagent Kits List:

Health Checking Profile

(TP, ALB, GLO, TBIL, ALT, ALP, CK, AMY, CRE, BUN, Ca, P, CHOL, GLU)

Preanesthetic Panel

(TP, ALT, ALP, CRE, BUN, GLU)

Preanesthetic Panel Plus

(TP, ALT, AST, ALP, CK, LDH, CRE, BUN, GLU)

Liver & Kidney Profile

(TP, ALB, GLO, TBIL, ALT, AST, GGT, CRE, BUN, GLU)

Liver Profile

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

Kidney Profile

(ALB, BUN, CRE, BUN/CRE, K, CO<sub>2</sub>, Ca, P, UA)

Electrolytes

(CO<sub>2</sub>, Na, K, Na/K, Ca, P, Mg, Cl)

Critical Care Panel

(ALT, CRE, BUN, CO<sub>2</sub>, K, Na, Cl, GLU)

Triple Tests Profile

(TP, ALB, GLO, TBIL, ALT, ALP, CK, AMY, CRE, BUN, Ca, P, CHOL, GLU)

Avian & Reptile Panel

(TP, ALB, AST, CK, GLU, UA, Ca, P, K, Na, Cl, TBA)

Large Animal Diagnostic

(TP, ALB, AST, GGT, ALP, CK, BUN, Ca<sup>2+</sup>, P, Mg)

Catalogue Number: MNCHIP reagent disc types

Manufacturer: Building2, No.19 Xinhuanxi Road, TEDA Tianjin 300457, P.R. China

Emergency Call: +86 22 59861168

## Hazards Identification

General: Not Properly Handled this may be irritating to skin and eyes.

Hazard Symbol: Not Regulated as dangerous

Risk Codes: None required

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

## Composition and Information on Ingredients

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

Assay	Material Name	CAS No.	Character
ALT	Tris	77-86-1	White crystal
	L-Alanine	56-41-7	White crystal
	$\alpha$ -Ketoglutaric acid	328-50-7	White powder
	Sodium Chloride	7647-14-5	White crystal
	D-Trehalose Dihydrate	6138-23-4	White powder
	D-Sorbitol	50-70-4	White powder
	Bovine Serum Albumin	9048-46-8	Yellowish powder
	NADH	58-68-4	White powder
	D-lactate Dehydrogenase	1.1.1.28	White powder
AST	Ammonium sulfate	7783-20-2	Clear crystal
	D-lactate Dehydrogenase	1.1.1.28	White powder
	Tris	77-86-1	White crystal
	L-aspartic Acid	56-84-8	White powder
	$\alpha$ -Ketoglutaric acid	328-50-7	White powder
	NADH	58-68-4	White powder
	Malate Dehydrogenase	1.1.1.37	White powder
	D-Trehalose Dihydrate	6138-23-4	White powder
	Dextran 40000	9004-54-0	White powder
	Cholic acid sodium salt	361-09-1	White powder
Cl	Ethylenediamine Tetraacetic Acid	60-00-4	White powder
	Morpholine Ethyl Sulfonic Acid	4432-31-9	White powder
	Alpha Amylase	3.2.1.1	White powder
	Calcium Acetate Monohydrate	5743-26-0	White powder
	D-Mannitol	69-65-8	White powder
	2-chloro-4-nitrophenol maltoglycoside	---	Yellowish powder
CO2	Tris	77-86-1	White crystal
	D-Mannitol	69-65-8	White powder

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	D-Trehalose Dihydrate	6138-23-4	White powder
	Starch, soluble	9005-84-9	White powder
	Bovine serum albumin	9048-46-8	Yellowish powder
	Phosphoenolpyruvate	138-08-9	White powder
	NADH	58-68-4	White powder
	Malate Dehydrogenase	1.1.1.37	White powder
	Phosphoenolpyruvate carboxylase	4.1.1.31	White powder
CHOL	$\beta$ -Nicotinamide-adenine dinucleotide, (NAD) , free acid, Grade II	53-84-9	Yellowish powder
	Cholesterol Esterase	3.1.1.13	Brownish powder
	Cholesterol Dehydrogenase	67775-34-2	White powder
	Tris	77-86-1	White crystal
	Bovine serum albumin	9048-46-8	Yellowish powder
	Sodium Chloride	7647-14-5	White crystal
	D-Trehalose Dihydrate	6138-23-4	White powder
	myo-Inositol	87-89-8	White powder
CRE	Creatinase	3.5.3.3	White powder
	Sarcosine oxidase	1.5.3.1	Yellow powder
	Ascorbate Oxidase	1.10.3.3	Light blue powder
	2,4, 6-tribromo-3-hydroxybenzoic acid	14348-40-4	Yellowish powder
	Bovine serum albumin	9048-46-8	White powder
	Peroxidase	1.11.1.7	reddish-brown powder
	Creatinine enzyme	3.5.2.10	White powder
	4-Aminoantipyrine Hydrochloride	22198-72-7	Yellowish powder
	D-Trehalose Dihydrate	6138-23-4	White powder
	Potassium Ferrocyanide	14459-95-1	faint yellow powder
HBDH	D-Mannitol	69-65-8	White powder
	D-Trehalose Dihydrate	6138-23-4	White powder
	Dextran 10000	9004-54-0	White powder
	Bovine serum albumin	9048-46-8	Yellowish powder
	NADH	58-68-4	White powder
	Sodium 2-oxobutyrate	2013-26-5	White powder
	Sodium phosphate dibasic dodecahydrate	10039-32-4	White powder
	Potassium phosphate monobasic	7778-77-0	White powder
Mg	Tris	77-86-1	White crystal
	D-Trehalose Dihydrate	6138-23-4	White powder
	Polyethylene Glycol 8000	25322-68-3	White powder
	D-glucose	50-99-7	White powder

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	NADP Sodium Salt	53-59-8	White powder
	ATP Sodium Salt	34369-07-8	White powder
	Bovine serum albumin	9048-46-8	Yellowish powder
	Hexokinase	2.7.1.1	Yellowish powder
	Glucose-6-phosphate Dehydrogenase	1.1.1.49	White powder
Na	Bovine serum albumin	9048-46-8	Yellowish powder
	$\beta$ -Galactosidase	3.2.1.23	White powder
	Tris	77-86-1	White crystal
	D-Trehalose Dihydrate	6138-23-4	White powder
	Dextran 10000	9004-54-0	White powder
	O-Nitrobenzene $\beta$ -D-galactopyranoside	369-07-3	White powder
	D-Mannitol	69-65-8	White powder
LDH	Tris	77-86-1	White crystal
	Iodonitrotetrazolium chloride	146-68-9	Yellow powder
	D-Trehalose Dihydrate	6138-23-4	White powder
	Diaphorase	1.6.5.2	Yellowish powder
	$\beta$ -Nicotinamide-adenine dinucleotide, (NAD) , free acid, Grade II	53-84-9	Yellowish powder
	Dextran 40000	9004-54-0	White powder
P	NAD Sodium Salt	20111-18-6	White powder
	$\alpha$ -D-Glucose-1-6-diphosphate potassium salt hydrate	91183-87-8	Clear crystal
	D-(+)-Maltose monohydrate	6363-53-7	White powder
	PIPES	5625-37-6	White powder
	Bovine serum albumin	9048-46-8	Yellowish powder
	Magnesium chloride hexahydrate	7791-18-6	Clear crystal
	Maltose phosphorylase	2.4.1.8	White powder
	$\beta$ -Phosphoglucomutase	5.4.2.6	White powder
	Glucose-6-phosphate Dehydrogenase	1.1.1.49	White powder
TBIL	PIPES	5625-37-6	White powder
	Polyethylene Glycol 3350	25322-68-3	White powder
	D-Mannitol	69-65-8	White powder
	Cholic acid sodium salt	361-09-1	White powder
	Bovine serum albumin	9048-46-8	Yellowish powder
	Bilirubin oxidase	1.3.3.5	Blue powder
TP	Copper sulfate pentahydrate	7758-99-8	Blue crystal
	Potassium iodide	7681-11-0	White powder
	Sodium hydroxide	1310-73-2	White powder
	Sodium carbonate	497-19-8	White powder

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TG	Lipoprotein esterase	3.1.1.34	White powder
	Diaphorase	1.6.5.2	Yellowish powder
	Glycerol kinase	2.7.1.30	White powder
	NAD Sodium Salt	20111-18-6	White powder
	D-Mannitol	69-65-8	White powder
	Dextran 10000	9004-54-0	White powder
	Bovine serum albumin	9048-46-8	Yellowish powder
	ATP Sodium Salt	34369-07-8	White powder
	Iodonitrotetrazolium chloride	146-68-9	Yellow powder
	Potassium phosphate dibasic	7758-11-4	White powder
	Potassium phosphate monobasic	7778-77-0	White powder
UA	D-Mannitol	69-65-8	White powder
	Polyethylene Glycol 8000	25322-68-3	White powder
	Dextran 10000	9004-54-0	White powder
	Uricase	1.7.3.3	White powder
	Peroxidase	1.11.1.7	reddish-brown powder
	Ascorbate oxidase	1.10.3.3	Light blue powder
	TAPS	29915-38-6	White crystal
	DHBSA	54970-72-8	White powder
	Potassium ferrocyanide	14459-95-1	faint yellow powder
K	Phosphoenolpyruvate	138-08-9	White powder
	Adenosine diphosphate	58-64-0	White powder
	NADH	58-68-4	White powder
	Pyruvate kinase	2.7.1.40	White powder
	Glutamate dehydrogenase	1.4.1.2	White powder
	$\alpha$ -Ketoglutaric acid	328-50-7	White powder
	myo-Inositol	87-89-8	White powder
	D-Trehalose Dihydrate	6138-23-4	White powder
	Starch, soluble	9005-84-9	White powder
	Tris	77-86-1	White crystal
	D-lactate dehydrogenase	1.1.1.28	White powder
BUN	Tris	77-86-1	White crystal
	$\alpha$ -Ketoglutaric acid	328-50-7	White powder
	Adenosine 5'-Diphosphate Monopotassium Salt	72696-48-1	White powder
	NADH	58-68-4	White powder
	Glutamate dehydrogenase	1.4.1.2	White powder
	Urease	3.5.1.5	White powder

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	D-Trehalose Dihydrate	6138-23-4	White powder
	Cholic acid sodium salt	361-09-1	White powder
	Bovine serum albumin	9048-46-8	Yellowish powder
ALP	Polyethylene Glycol 3350	25322-68-3	White powder
	D-Trehalose Dihydrate	6138-23-4	White powder
	Magnesium chloride hexahydrate	7791-18-6	Clear crystal
	Para-nitro-pheneye phosphate	68189-42-4	White powder
CK	D-Trehalose Dihydrate	6138-23-4	White powder
	N-Acetyl-L-cysteine	616-91-1	White crystal
	Di(adenosine-5,) trilithium pentaphosphate	75522-97-3	White powder
	D-glucose	50-99-7	White powder
	NADP potassium salt	53-59-8	White powder
	Starch, soluble	9005-84-9	White powder
	Adenosine 5'-Diphosphate Monopotassium Salt	58-64-0	White powder
	Creatine disodium phosphate	922-32-7	White powder
	Hexokinase	2.7.1.1	Yellowish powder
	Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
CKMB	Imidazole	288-32-4	White powder
	Di(adenosine-5,) trilithium pentaphosphate	75522-97-3	White powder
	D-glucose	50-99-7	White powder
	NADP potassium salt	53-59-8	White powder
	D-Trehalose Dihydrate	6138-23-4	White powder
	myo-Inositol	87-89-8	White powder
	Adenosine 5'-Diphosphate Monopotassium Salt	58-64-0	White powder
	Hexokinase	2.7.1.1	Yellowish powder
Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder	
DBIL	Polyethylene Glycol 3350	25322-68-3	White powder
	D-Mannitol	69-65-8	White powder
	myo-Inositol	87-89-8	White powder
	Citric acid	77-92-9	White powder
	Bilirubin oxidase	1.3.3.5	Blue powder
GLU	PIPES	5625-37-6	White powder
	Adenosine triphosphate sodium salt	56-65-5	White powder
	β-Nicotinamide-adenine dinucleotide, (NAD), free acid, Grade II	53-84-9	Yellowish powder

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	Hexokinase	2.7.1.1	Yellowish powder
	Glucose-6-phosphate dehydrogenase	1.1.1.49	White powder
	Polyethylene Glycol 8000	25322-68-3	White powder
	D-Mannitol	69-65-8	White powder
GGT	$\gamma$ -L-Glutamyl-3-carboxy-4-nitroanilide monoammonium	63699-78-5	White powder
	Glycylglycine	556-50-3	White powder
	Bovine serum albumin	9048-46-8	Yellowish powder
	D-Mannitol	69-65-8	White powder
	Macergo 8000	25322-68-3	White powder
	Cholic acid sodium salt	361-09-1	White powder
GSP	Nitrotetrazolium blue chloride	298-83-9	Yellow powder
	Sodium phosphate dibasic dodecahydrate	10039-32-4	White powder
	Sodium hydroxide	1310-73-2	White crystal
	D-Mannitol	69-65-8	White powder
HDL-C	Sodium 3-(N-ethyl-3-methylanilino)-2-hydroxypropylsulfonate	679787-10-1	White crystal
	Cholesterol Esterase	3.1.1.13	Brownish powder
	Cholesterol oxidase	1.1.3.6	Yellow powder
	4- amino antipyrine	83-07-8	Yellow powder
	Peroxidase	1.11.1.7	reddish-brown powder
	PIPES	5625-37-6	White powder
	D-Mannitol	69-65-8	White powder
	D-Trehalose Dihydrate	6138-23-4	White powder
	Dextran Sulfate Sodium Salt	9011-18-1	White powder
Magnesium chloride hexahydrate	7791-18-6	Clear crystal	
Ca	8-Hydroxyquinoline-5-sulfonic acid	207386-92-3	Yellow powder
	Arsenazo III sodium salt	1668-00-4	Purple powder
	D-Trehalose Dihydrate	6138-23-4	White powder
	Cholic acid sodium salt	361-09-1	White powder
ALB	Bromocresol green	76-60-8	Yellow crystal
	Sodium Chloride	7647-14-5	White crystal
	Sucrose	57-50-1	White crystal
AMY	MES monohydrate	4432-31-9	White powder
	2-chloro-4-nitrophenol maltoglycoside	---	Yellowish powder
	D-Mannitol	69-65-8	White powder
	Cholic acid sodium salt	361-09-1	White powder

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	Bovine serum albumin	9048-46-8	Yellowish powder
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Potential Health Effect	Irritation of skin, eyes, and mucous membrane may be resulted in by Exposure.		
Product Hazard Classifications	EU Xi; R36/37/38	US OSHA Yes	WHMIS Exempt
Reactivity	Minima risk		

## First Aid Measures

Ingestion	Call physician for medical attention if the product is taken internally. Do not attempt to induce vomiting, or to give any solid or liquid by mouth if the exposed subject is unconscious or semi-conscious.
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## Fire-fighting Measures

Fire and Explosion Hazard	Not applicable
Extinguishing Media	Use extinguishing media for surrounding fire.
Special Fire and Explosion Hazard	No special hazards
Hazardous Combustion Products	No combustion products posing significant hazards are expected from this product.
Protective Equipment for Firefighters	Self-contained breathing apparatus and full protective equipment are recommended for firefighters.
Fire and Explosion Hazard	Not applicable
Extinguishing Media	Use extinguishing media for surrounding fire.

## Accidental Release Measures

Personal Precautions	Use good laboratory procedures
Clean-up Methods	Wipe up spill and place in containers suitable for disposal.
Environmental Precautions	For large spills, take precautions to prevent entry into waterways, sewers, or surface waters.

## Handling and Storage

Safe Handling	Avoid contact with eyes. Use good laboratory procedures.
Recommended Storage Conditions	Keep in the original packaging at the labeled temperature.
Protection against Explosion And	No special measures required. Refer to the product label



Fires for additional information on storage conditions.

## Exposure Controls and Personal Protection

Engineering Controls	Use in well-ventilated rooms. No special engineering controls are required.
Respiratory Protection	Under normal conditions. No respiratory protection is required of the use of this product.
Hand Protection	Impervious gloves are recommended if hand contact with the material is anticipated.
Eye Protection	Safety glasses or goggles are recommended if danger of splashes may be present.
Skin Protection	Laboratory coat or appropriate clothing is needed when working with the product.

## Chemical and Physical Properties

Appearance	Beads
Color	Colorless, transparent
Odor	Pungent
Boiling Point	N/A
Melting Point	N/A
Flash Point	N/A
Flammability	Not flammable
Auto Flammability	Not flammable
Density	N/A
Solubility	N/A

## Stability and Reactivity

Chemical Stability	Stable under proper operation and storage conditions.
Conditions to avoid	Incompatible materials, heat, flam and spark.
Taboo Things	N/A
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 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.

## Ecological Information

General Notes	Do not introduce undiluted product or large quantities of it to reach surface water, water supply, or sewage system.
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## Disposal Considerations

Waste Disposal	Dispose unused product, packaging in accordance with local regulations. If unsure of the applicable requirements, contact the authorities for information.
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## Transport Information

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.

## 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



Irritant

R36/37/38 Irritating to eyes and skin

## Other Information

This document is based on our present knowledge and relevant scientific literatures. Labnovation Technologies, Inc. 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

## Material Safety Data Sheet

ensure proper use and disposal of these materials and for the safety and health of employees and customers.

If for internal purposes only, unlimited paper copies of this MSDS are permitted.