MATERIAL SAFETY DATA SHEET (MSDS)/SAFETY DATA SHEET (SDS)

Liver Panel Plus

I. Product and Company Identification

Product Name:	Piccolo® Reagent Disc – Liver Panel Plus A point of care blood diagnostic product
Part Numbers:	400-1003 (single); 400-0003 (10 Pack); 400-0003-4 (4 pack)
Company Information:	Abaxis, Inc. 3240 Whipple Road Union City, CA 94587 Tel: +1-510-675-6500 Fax: +1-510-441-6150 ABAXIS Europe GmbH Bunsenstr. 9-11 64347 Griesheim, Germany Tel: +49 6155 780 21 0 (EU) Fax: 06151-35079-11
Customer Support:	+1-800-822-2947 (US), abaxis@abaxis.com Tel: +49 6155 780 21 0 (EU) abaxis@abaxis.de
Emergency Number:	+1-800-822-2947 (US) This number is available only during business hours (9:00am to 5:00pm UTC)

II. Hazard Identification

OSHA Hazards: No known OSHA hazards

GHS Hazards: Not a dangerous or hazardous substance or preparation according to the Global Harmonized System (GHS).



Warning

CLP Hazards

H302	Harmful if swallowed
H315	Causes skin irritation
H335	May cause respiratory irritation
H401	To avoid risks to human health and the environment, comply with the instructions for use
P273	Avoid release to the environment
P235	Keep cool (2-8°C)

P308 + P313	If exposed or concerned: Get medical advice/attention
P403 + P235	Keep cool and store in a well-ventilated place

HMIS Ranking:

Health hazard	1
Flammability	0
Physical hazards	0

NFPA Rating:

Health hazard	1
Fire	0
Reactivity hazard	0

Potential Health Effects:

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

III. Composition/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%. Table 1 below lists the chemicals present in the panel in concentrations of greater than 1%:

TABLE 1

NAME OF SUBSTANCE	%	CAS#	EC#	HAZARD
D-Mannitol	11.0	69-65-8	200-711-8	Skin Irrit. 2
Polyethylene glycol, 8000	8.6	25322-68-3	500-038-2	Skin Irrit. 2
Sodium thiocyanate	6.2	540-72-7	208-754-4	Skin Irrit. 2
Polyethylene glycol, 3400	5.8	25322-68-3	500-038-2	Skin Irrit. 2
Sodium Chloride	5.5	7647-14-5	231-598-3	Skin Irrit. 2
Tris(hydroxymethyl)amino methane	5.4	77-86-1	201-064-4	Skin Irrit. 2
Dextran, 70 USP	5.4	9004-54-0	232-677-5	Skin Irrit. 2
Polyethylene glycol, 2000	4.0	9004-74-4	215-801-2	Skin Irrit. 2
L-Aspartic Acid	2.3	56-84-8	200-291-6	Skin Irrit. 2
Lithium Hydroxide, monohydrate	2.1	1310-65-2	270-438-7	Skin Irrit. 2

TABLE 1 continued

NAME OF SUBSTANCE	%	CAS#	EC#	HAZARD
Sodium Azide	1.3	26628-22-8	247-852-1	Skin Irrit. 2
EDTA, Tetrasodium Salt	1.1	194491-31-1	200-573-9	Skin Irrit. 2

IV. 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

V. Fire-Fighting Measures

No flammable properties are associated with this product.

Extinguishing media: Use water spray, dry chemical or carbon dioxide

Hazardous combustion products: May result in the formation of nitrogen and carbon oxides

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary

Additional information: Combustion of the plastic rotor containing this preparation may result in toxic particulates and gases

VI. 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

Environmental Controls: Prevent spilled product from entering drains

Spill 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

VII. 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.

VIII. Exposure Controls/Personal Protection

None of the chemicals in this preparation are assigned occupational exposure limits. This product can be safely handled under normal conditions with no controls.

Engineering Controls:	Provide ventilation in work areas where this product is handled
Personal Protective Equipment:	Safety glasses and chemical-resistant gloves recommended

IX. Physical and Chemical Properties

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 • 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

X. Stability and Reactivity

Reactivity:	This preparation is not known to be reactive violently
Chemical Stability:	This preparation is known to be chemically stable
Thermal Decomposition:	Will decompose when burned
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 under dry, in a cool (2-8°C), dry location

XI. Toxicological Information

No information was found on specific symptoms. The toxicological properties of this preparation have not been fully investigated. Table 2 below lists the chemicals contained in the Panel and their toxicology information:

TABLE 2

NAME OF SUBSTANCE	ACUTE TOXICITY LD_{50}/ LC_{50}	CHRONIC TOXICITY (CMR) [1]
D- Mannitol	13,500 mg/kg (Oral, Rat)	No data available
Polyethylene glycol, 8000	> 50,000 mg/kg (Oral, Rat)	No data available
Sodium thiocyanate	764 mg/kg (Oral Rat)	No data available
Polyethylene glycol, 3400	> 50,000 mg/kg (Oral, Rat)	No data available
Sodium Chloride	3000 mg/kg (Oral, Rat)	No data available
Tris (hydroxymethyl) amino methane	5900 mg/kg (Oral, Rat)	No data available
Dextran, 70 USP	10,700 mg/kg (scu, Rat)	Reproductive effects to women at high doses
Polyethylene Glycol 2000	> 50000 mg/kg (Oral, Rat)	No data available
L-Aspartic Acid	5,000 mg/kg (Oral, Rat)	No data available
Lithium hydroxide	368 mg/kg (Oral, Rat)	No data available
Sodium Azide	10 mg/kg (Oral, Rabbit)	No data available
EDTA, Tetrasodium Salt	630 - 1,260 mg/kg (Oral – Rat)	No data available

(CMR)[1] – Refers to carcinogenicity, mutagenicity, and reproductive hazards.

XII. Ecological Information

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

XIII. 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
U.S. Waste Classification:	Non-RCRA Waste
California Waste Codes:	H132

XIV. Transport Information

Follow federal and local regulations.

DOT and IATA Shipping Information:

Not regulated as a dangerous good

ADR Information:

Not Applicable

IMDG:

Not a dangerous good

XV. Regulatory Information

US OSHA:	Not regulated as a hazardous material
US EPA:	Hazards to the environment have not been thoroughly investigated
EU Regulations:	This material safety data sheet conforms to Regulation (EC) No 1272/2008, 1907/ 2006, and other requirements established by the European Union
National Regulations:	Germany: Water Hazard Class I
Chemical Safety Assessment:	A Chemical Safety Assessment has not been completed for this product

XVI. 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. Abaxis shall not be held liable for any damage resulting from handling or from contact with the above product.

Precautionary Statements:

R36 Irritating to eyes

R38 Irritating to skin

S24/ 25 Avoid contact with skin and eyes