



SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product name	Direct Total Iron Binding Capacity (TIBC) Reagent
Catalog number	ACI-32
Product use	For the quantitative determination of direct total iron binding capacity (TIBC) reagent concentration in serum.
Company name	Alfa Wassermann Diagnostic Technologies, LLC
Company address	4 Henderson Drive West Caldwell, New Jersey 07006
Country	USA
Telephone number	1-800-220-4488
Fax number	1-973-276-0383
Email	info@alfawassermannus.com
Website	www.AWDT.us
Emergency telephone number	Toll Free: 1-866-419-ALFA (2532)

SECTION 2 – HAZARDS IDENTIFICATION

Hazard classification	This product is not hazardous according to OSHA 29 CFR 1910.1200.
GHS label elements	Not applicable.
Signal word	Not applicable.
General hazard	May cause eye, skin and respiratory tract irritation.
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Other hazards	
Eyes	May cause irritation.
Skin	May cause irritation. May be harmful in contact with skin.
Inhalation	May cause irritation. May be harmful if inhaled.
Ingestion	May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic effects	Direct TIBC Buffer: Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse kidney effects. Direct TIBC Color Reagent: None known.

SECTION 3 – COMPOSITION/ INFORMATION ON INGREDIENTS		
Hazardous Ingredients	CAS Number	%
Direct TIBC Buffer		
Water	7732-18-5	>80
MOPS	1132-61-2	<8
4-Morpholinepropanesulfonic acid, sodium salt	71119-22-7	<9
Sodium bicarbonate	144-55-8	<3
Proclin 300	NA	<0.1
Direct TIBC Color Reagent		
Water, distilled, conductivity or of similar purity	7732-18-5	>85
Acetic acid, glacial	64-19-7	<1.5
Tween 20	9005-64-5	<10
Hexadecyltrimethylammonium bromide	57-09-0	<0.1
Thiourea	62-56-6	<0.1
Iron (III) chloride hexahydrate	10025-77-1	<0.001
Proclin 300	NA	<0.1
Magnesium chloride, hexahydrate	7791-18-6	<2
2,6-Dichloro-4'-hydroxy-3,3''-dimethylfuchsone-5,5''-dicarboxylic acid, disodium salt	1796-92-5	<0.01

SECTION 4 – FIRST AID MEASURES	
Skin contact	Remove contaminated clothing and wash with soap and plenty of water. Seek medical attention.
Eye contact	Immediately flush with plenty of water or eye wash solution for up to ten minutes. Seek medical attention.
Inhalation	Remove victim to fresh air. Seek medical attention.
Ingestion	Wash out mouth thoroughly with water. Seek medical attention.

SECTION 5 – FIRE-FIGHTING MEASURES	
Flammable	No
Hazardous combustion products	No information available.
Extinguishing media	Extinguish with water spray, carbon dioxide, dry chemical or material appropriate for the surrounding fire.
Protection of firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Specific hazards arising from the chemical	Thermal decomposition can lead to release of irritating gases and vapors.
Firefighting instructions	Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing gloves appropriate protective clothing. Ensure adequate ventilation and treat material as you would hazardous materials.
Environmental precautions	Do not allow to enter drains, sewers or watercourses.
Methods for containment and cleaning up	Absorb spill with vermiculite or other inert material. Place in suitable container for prompt disposal. Label the container as potentially hazardous. Spill areas can be decontaminated with 0.5% sodium hypochlorite, e.g., a fresh 1:10 dilution of common household bleach. Dispose of waste in accordance with all applicable federal, state, local and provincial environmental regulations.

SECTION 7 – HANDLING AND STORAGE

Handling	Wear safety glasses, disposable gloves and protective clothing. Wash thoroughly after handling. Handle and open container with care.
Storage	Store at 2-8°C.

SECTION 8 – EXPOSURE CONTROL/ PERSONAL PROTECTION

Exposure limits		
Direct TIBC Color Reagent		
Components	Type	Value
Acetic acid, glacial	ACGIH TLV: TWA	10 ppm
	ACGIH TLV: STEL	15 ppm
	OSHA PEL: TWA	25 mg/m ³
	OSHA PEL: TWA	10 ppm
Personal protective equipment	☒ Gloves ☐ Respirator ☒ Eye ☐ Footwear ☒ Clothing ☐ Other	

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Properties	Direct TIBC Buffer	Direct TIBC Color Reagent
Physical state	Liquid.	Liquid.
Color	Clear.	Dark purple.
Odor	No information available.	No information available.
Odor threshold	No information available.	No information available.
pH value	No information available.	No information available.
Vapor pressure	No information available.	No information available.
Vapor density	No information available.	No information available.
Boiling point (°C)	Not applicable.	No information available.
Melting point (°C)	No information available.	No information available.
Solubility in water	No information available.	Soluble.
Specific gravity	No information available.	No information available.

SECTION 10 – STABILITY AND REACTIVITY

Chemical stability	Stable under normal conditions.
Incompatible materials	None known.
Hazardous decomposition products	None known.
Conditions to avoid	Excess heat.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicological data			
Component	LD50 Oral	LD50 Dermal	LD50 Inhalation
Direct TIBC Buffer			
Water	90 mL/kg (Rat)	Not listed.	Not listed.
Sodium bicarbonate	4220 mg/kg (Rat)	Not listed.	Not listed.
Direct TIBC Color Reagent			
Water, distilled, conductivity or of similar purity	90 mL/kg (Rat)	Not listed.	Not listed.
Acetic acid, glacial	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat), 4 hours
Tween 20	36700 uL/kg (Rat)	Not listed.	Not listed.
Hexadecyltrimethylammonium bromide	410 mg/kg (Rat)	Not listed.	Not listed.
Thiourea	125 mg/kg (Rat)	6810 mg/kg (Rat)	0.9 mg/L (Rat), 4 hours
Magnesium chloride, hexahydrate	8100 mg/kg (Rat)	Not listed.	Not listed.
Acute effects	No acute toxicity is available for this product.		
Chronic effects	Direct TIBC Buffer: Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse kidney effects. Direct TIBC Color Reagent: None known.		
Carcinogenicity	Direct TIBC Buffer: There are no known carcinogenic chemicals in this product. Direct TIBC Color Reagent: Thiourea - reasonably anticipated to be a human carcinogen.		

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicological data				
Component	Freshwater Algae	Freshwater Fish	Microtox	Water flea
Direct TIBC Buffer				
Sodium bicarbonate	EC50: 650mg/L, 120 hours	Not listed.	Not listed.	EC50: 2350 mg/L, 48 hours
Direct TIBC Color Reagent				
Acetic acid, glacial	Not listed.	Not listed.	EC50 photobacterium: 8.8 mg/L, 15 mins EC50 photobacterium: 8.8 mg/L, 25 mins EC50	EC50: 95 mg/L, 24 hours

Hexadecyltrimethylammonium bromide	EC50: 0.09 mg/L, 96 hours	Not listed.	photobacterium: 8.8 mg/L, 5 mins EC50 photobacterium: 9.84 mg/L, 5 mins	
Thiourea	EC50: 6.8 mg/L, 96 hours EC50: 3.8 mg/L, 72 hours EC50: 6.8 mg/L, 96 hours	Not listed.	EC50: 3100 mg/L, 30 mins EC50: 3395 mg/L, 15 mins	EC50: 35 mg/L, 48 hours

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste disposal Contaminated instruments and surfaces should be disinfected in accordance with your employer's chemical-specific and universal/ standard precautions.

Dispose in accordance with all applicable regulations.

SECTION 14 – TRANSPORT INFORMATION

DOT	Not regulated as a hazardous material by DOT.	IMDG	Not regulated
IATA	Not regulated	TDG	Not regulated

SECTION 15 – REGULATORY INFORMATION

US federal regulations This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Hazard symbol Not applicable.

Warnings Not applicable.

SECTION 16 – OTHER INFORMATION

Supplier's notes This safety data sheet has been complied, controlled and approved in accordance with the regulations in force. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. We reserve the right to revise the Safety Data Sheet periodically as new information becomes available.

Recommended restrictions on use For in vitro diagnostic use only.

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Preparation information P/N 701197-118 Rev B 8/14

END OF SDS