SECTION 1: Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name: **WIDAL**

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/preparation: Diagnostic reagent set (Slide tests) for the in-vitro qualitative screening and semi-quantitative determination of enteric fever antibodies present in infected human serum manually.

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Arena BioScien, SEA
- Address of Manufacturer: Block 5, Street 9 Ismailia free zone. Ismailia- Egypt
- Telephone: +202 21813500/ +201113102057
- Email: admin@arenabioscientific.com

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

KIT COMPONENT	INGREDIENT	CLASSIFICATION SUBSTANCE	EINECS NR
All Antigen suspensions	0.1 % Sodium azide (NaN3)	T+; R28-32 N; R50-53	247-852-1
Antigen suspension S.paratyphi 'BH' S.paratyphi 'AH' S.typhi 'H'	0.3 % formaldehyde 0.1 % Sodium azide (NaN3)	T; R23/24/25-R34-R40-R43 T+; R28-32 N; R50-53	50-00-0 247-852-1
Positive Control	Material of animal origin. 0.1% Sodium Azide (NaN3)	T+; R28-32 N; R50-53	247-852-1

2.2 Label elements

- Signal Word: None
- Symbols: None
- Hazard phrases: None
- Precautionary Phrases:
  Keep container tightly closed.
  Do not breathe dust.
  Avoid contact with eyes, skin, or clothing.

2.3 Other hazards

- May be mildly irritating to skin and eyes.
- May be mildly irritating to respiratory system.

SECTION 3 Composition/information on ingredients

3.1 Substances

Kit	Antigen suspension
WIDAL Antigen	Concentrated, smooth antigen suspensions of: S.typhi 'O' S.typhi 'H' S.paratyphi 'AH' S.paratyphi 'BH' S.paratyphi 'AO' S.paratyphi 'BO'

	S.paratyphi 'CH' S.paratyphi 'BO'
Positive control	Poly-specific positive control reactive with WIDAL antigens.

3.2 Mixtures
- This product does not contain any hazardous substances at the concentration limits given in Regulation (EC) No. 1272/2008 and OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 4 First aid measures

4.1 Description of first aid measures

- General

In case of doubt, or when symptoms persist, seek medical attention.
In general, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.

- Contact with skin

Remove contaminated clothing.
Wash affected area with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention. Contaminated clothing should be laundered before reuse.

- Contact with eyes

If substance has gotten into eyes, immediately wash out with plenty of water for at least 15 minutes. Irrigate eyes thoroughly while lifting eyelids. Seek medical advice if necessary.

- Ingestion

Rinse mouth with water (do not swallow).
Never make an unconscious person vomit or drink fluids.
If medical advice is needed, have product container or label at hand.

- Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed
- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
- Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1 Extinguishing media
- In case of fire: use foam, carbon dioxide or dry agent for extinction.

5.2 Special hazards arising from the substance or mixture
- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- See Section 10.

5.3 Advice for firefighters
- Keep container(s) exposed to fire cool, by spraying with water.
- Wear chemical protection suit and positive-pressure breathing apparatus.
- Wear protective clothing as per Section 8.

5.4 Hazardous Combustion Products
- May include carbon oxides.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Shut off all ignition sources.
- Use non-sparking hand tools.

SECTION 6 Accidental release measures (continued…)

- Avoid raising dust.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid scattering in the environment.

6.3 Methods and material for containment and cleaning up

- Absorb spillage in inert material and shovel up.
- Place in sealable container.
- Seal containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

6.4 Reference to other sections

- See Section 7.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

- Do not breathe dust.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities

- Storage temperature: see component label
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a dry place.
- Keep away from: heat sources, acids.

SECTION 8 Exposure controls/personal protection

8.1 Exposure limits

Sodium Azide:

	mg/m3	Ppm
TLV-TWA		
TLV-STEL		
TLV-Ceiling	0.29 (NaN3)	0.11 (HN3)
OES-LTEL		
OES-STEL	0.3 (NaN3)	
MAK	0.2	
TRK		
MAC-TGG 8h		
MAC-TGG 15min		
MAC-Ceiling	0.3	
VMA 8h		
VMA 15min	0.3	0.1
GWBB 8h		
GWBB 15min		
Momentary value	0.29	0.11
EC	0.1	
EC-STEL	0.3	

SECTION 8 Exposure controls/personal protection (continued…)

Formaldehyde:

	mg/m3	ppm
TLV (ACGIH)	0.3	
OEL (TRGS 900)	0.6	0.5

8.2 Exposure controls

- Eyewash bottles should be available.
- Engineering controls should be provided to prevent the need for ventilation.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved dust mask, NIOSH N95 (US) or type FFP1 (EN143) dust masks.
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



Gloves | Safety Glasses | Lab Coat

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties 9.1

.Appearance: Homogenous, free-flowing -

Antigen suspensions	Liquid
Positive Control	Liquid

- Odor: No information available
- pH: No information available
- Melting point/Range: No information available
- Boiling Point/Range: Not applicable
- Flashpoint: No information available
- Evaporation Rate: Not applicable
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: No information available
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature Product is not self-igniting
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: No information available

9.2 Other information

- No information available

SECTION 10 Stability and reactivity

10.1 Reactivity

Reactivity/Hazardous decomposition products: carbon monoxide, carbon dioxide.

Conditions/Materials to avoid: Strong oxidizing agents, Incompatible with: aniline, phenol, isocyanates, anhydrides, strong acids, strong bases, amines, peroxides, acid chlorides, acid anhydrides, alkali metals, reducing agents.

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

- Keep away from metals and acids (Component contains azide) Component containing formaldehyde.

10.5 Incompatible materials

- None known .

SECTION 11 Toxicological information

Toxicity and effects

Acute toxicity: LD50 oral rat: 27 mg/kg
LD50 dermal rabbit: 20 mg/kg

Acute effects: Harmful if swallowed

Chronic toxicity: Carcinogenicity (TLV) : A4

Routes of exposure Ingestion, inhalation, eyes and skin

Caution! These components contain a substance that is absorbed through the skin (sodium azide).

Formaldehyde:

Toxicity and effects Acute toxicity: Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitits and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin.

Exposure can cause: coughing, chest pains, difficulty in breathing. Gastrointestinal disturbances. May cause convulsions. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Chronic toxicity: Carcinogenicity (TLV) : A4

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP or EPA classification.

May alter genetic material.

Carc. Cat. 3

SECTION 12 Ecological information

Aquatic toxicity

Sodium azide: - LC50 (96 h) : 0.8 mg/l (SALMO GAIRDNERI/ONCORHYNCHUS MYKISS)

- LC50 (96 h) : 0.7 mg/l (LEPOMIS MACROCHIRUS)
- LC50 (48 h) : 9 mg/l (GAMMARUS SP.)

Other information

- Effect on the ozone layer: Not dangerous for the ozone layer (1999/45/EC)
- Greenhouse effect: No data available
- Effect on waste water purification: No data available

Formaldehyde: BOD5: 60%

SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.

- Do not reuse empty containers.

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined.

Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

SECTION 14 Transport information

14.1 UN Number

- Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not Classified

14.6 Special precautions for user

- Not Classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

- Not Classified

14.8 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

14.9 International Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.10 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable

14.11 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
- ICAO Un No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15 Regulatory information

Classification according to directives 67/548/EEC, 1999/45/EC.
Contains sodium azide
Xn Harmful
R22, S23-46-61
R22: Harmful if swallowed
S23: Do not breathe vapour
S46: If swallowed, seek medical advice immediately and show this container or label
S61: Avoids release to the environment. Refer to special instructions/safety data sheets.

(Containing sodium azide & formaldehyde)
Xn Harmful
R22, 43, S23-46-61
R22: Harmful if swallowed
S43: May cause sensitization by skin contact
S23: Do not breathe vapour
S46: If swallowed, seek medical advice immediately and show this container or label
S61: Avoids release to the environment.
S(1/2): Keep locked up and out of reach of children.
S36/37/39: Wear suitable protective clothing and eye/face protection.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45: In case of an accident or if you feel unwell, seek medical advice immediately
S51: Use only in well-ventilated areas

SECTION 16 Other information

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Replaces: New issue
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