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

1.1 Product identifier

- Product Name: Creatinine Colorimetric

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

Reagent for the in-vitro quantitative determination of creatinine in human serum, plasma and urine on manual systems.

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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

Primary Routes of Entry:
Inhalation, ingestion, skin and / or eye contact.
Inhalation:
Sodium hydroxide: burning sensation, cough, with a corrosive action to mucous membrane.
Picric acid: irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.
Ingestion:
Sodium hydroxide: abdominal pain, burning sensation; symptoms: sneezing, sore throat or runny nose. Severe pneumonitis is possible.
Picric acid : irritation to gastrointestinal tract; symptoms: nausea, vomiting and diarrhea.
Skin Contact:
Sodium hydroxide: may cause redness, pain or scarring is possible with greater exposure.
Picric acid : causes irritation to skin, may cause allergic skin reactions, or can be absorbed through the skin with possible systemic effects.
Eye Contact:
Sodium hydroxide: may cause redness, pain or blurred vision, severe deep burns, or blindness.
Picric acid : may irritate eyes. Conjunctiva of the eye may also become yellow with corresponding yellow vision.
Chronic Exposure:
Sodium hydroxide: repeated / prolonged contact with skin can be destructive to tissue.
Picric acid: prolonged/ repeated exposure can cause liver, kidney, and blood effects. Hair and skin may become yellow.
Medical Conditions Aggravated by Exposure:
Person with pre- existing (sodium hydroxide: skin disorders or eye problems or impaired respiratory function; picric acid : pre – existing skin, liver, blood and kidney disorders) may be more susceptible to the effects.
Health Effects: The health effects from exposures to diluted forms of sodium hydroxide are not well documented. They are expected to be less severe than those for concentrated forms which are referenced in the descriptions.

SECTION 3 Composition/information on ingredients

3.1 Substances

Reagent 1: Picric Acid Reagent

Chemical Name	CAS #	% W/V
Picric Acid	88 – 89 – 1	> 1%

Reagent 2: Buffer Reagent

Chemical Name	CAS #	% W/V

Sodium Hydroxide	1310-73-2	> 1%

SECTION 4 First aid measures

Inhalation:
If breathing becomes difficult, remove victim to fresh air. Seek medical attention immediately.
Ingestion:
Do not induce vomiting. Get medical attention immediately. Do not give anything by mouth to an unconscious person.
Skin Contact:
Avoid skin contact. If skin contact occurs, remove contaminated clothing and wash exposed skin with water for atleast 15 minutes. Get medical attention immediately.
Eye Contact:
Immediately flush eye(s) with large volume of water for atleast 15 minutes, occasionally lifting the lower lids. Get medical attention immediately.

SECTION 5 Fire-fighting measures

Flash Point (Method used):
N/A
Flammable Limits
– LEL: N/A UEL: N/A
Extinguishing Media:
Use fire extinguishing media appropriate for site conditions.
Special Fire Procedures:
Structural firefighting gear and self-contained breathing apparatus will provide adequate protection if this product is in a fire area.
Unusual Fire and Explosion Hazards:
Sodium hydroxide : adding water to caustic solution generates large amount of heat.
Picric acid : explosive decomposition is likely if material is involved in a fire

SECTION 6 Accidental release measures

PPE should be level D: lab gloves, chemical resistant apron, boots and splash goggles. Sweep up spilled product. Place all spill residue into a suitable container, seal, label, and hold for disposal

SECTION 7 Handling and storage

7.1 Precautions for safe handling
- The reagents in this kit contain sodium azide as a preservative. Sodium azide has been reported to form lead or copper azide in laboratory plumbing which may explode on percussion. Flush drains with water thoroughly after disposing of fluids containing sodium azide.
- It should be noted, however, that there is no guarantee for products derived from human and animal sources not to transmit infectious diseases and thus should be handled with care.
- Keep out of reach of children.

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 Control parameters
- There are no recommended or established controls for this product.

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.

SECTION 8 Exposure controls/personal protection (continued…)

- Wear suitable protective clothing in accordance with good chemical hygiene practices.


Gloves


Safety Glasses


Lab Coat

SECTION 9 Physical and chemical properties

For All Components Unless Otherwise Indicated
Relative Vapour density(air = 1) : N/A
Evaporation rate(nBuAc = 1): N/A
Specific Gravity (water = 1) : N/A
Freezing / Melting Point : N/A
Solubility in Water : Soluble
Boiling Point : N/A
Vapour Pressure, mm Hg @ 20oC: N/A
pH : N/A
Odour and Appearance Information
Reagent 1: Yellowish Colour liquid
Reagent 2: Clear, Colourless liquid

SECTION 10 Stability and reactivity

Incompatibility (Materials to Avoid):
Sodium hydroxide : water, acid, flammable liquids, and metals (eg. Aluminium, tin , zinc).
Picric acid: metals – copper, lead, zinc, aluminium + water, ammonia, concrete, plaster, salts, oxidizers.
Hazardous Decomposition Products:
Sodium hydroxide: reacts with acid and is corrosive in moist air to metals (e.g. Zinc, tin, lead) to form combustible hydrogen gas.
Picric acid : explosive decomposition is likely if material is involved in a fire.
Will Hazardous Polymerization Occur?
Hazardous polymerization will not occur.
Conditions to Avoid / Polymerization:
N/A
Is the Product Stable?
Yes, under normal handling and storage conditions.
Conditions to Avoid/stability:
Heat, moisture, incompatibles. Picric acid: dangerous explosion hazard when dry. Becomes increasingly shock, heat, and friction sensitive as it loses its moisture.

SECTION 11 Toxicological information

Toxicity Data:

Sodium hydroxide is considered a severe skin and eye irritant based on irritation data: skin, rabbit 500 mg / 24 hours ; eye, rabbit 50 micrograms/24 hours.
Picric acid: LD50 (rat, oral)= 200 mg/kg.
Investigated as mutagen. Reproductive effects:
N/A.
Target organ Effects:
Picric acid : eyes, skin, kidneys, liver, blood.
Sodium hydroxide: skin, eyes, respiratory tract.
Carcinogenicity:
No

SECTION 12 Ecological information

Environmental Fate / Stability:
The sodium hydroxide solution may be hazardous to the environment, special attention should be given to water organisms.
Effect of Material on plants or animals:
N/A
Effect of Chemical on Aquatic Life:
N/A

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

SECTION 14 Transport information (continued…)

- 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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

SECTION 16 Other information

Date of Preparation: September 2019
Revision: Rev. 0
Replaces: New issue

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Arena BioScien Manufacturers, SEA. Shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.