

Document	QL801-241
Revision	A
Prepared by	Judith Swaris
Approved by	Jenifer Ohta
Issue date	08/16/2016

[SDS] **Creatinine Reagent Kit (Kinetic and Endpoint)**

1268 N. Lakeview Ave. Anaheim, CA 92807 Phone: (714) 463-1111 Fax: (714) 463-1169 www.tecodiagnostics.com


Section 1 – Identification

Product Name	Creatinine Kinetic	Emergency Telephone No.
Catalog Numbers	C513-480	CHEMTREC (800) 424-9300
Product Type	Clinical Chemistry Reagent	International CHEMTREC (703) 527-3887
Company Name	Teco Diagnostics	Company Telephone No.
Street Address	1268 N. Lakeview Avenue	(800) 222-9880 or (714) 463-1111 Monday - Friday 8:00-5:00 PT
City, State, Zip Code, Country	Anaheim, CA 92807 USA	Fax No. (714) 463-1169
Recommended Use: For <i>in vitro</i> diagnostic use only. For professional use only.		
Restrictions on Use: Not for <i>in vivo</i> use.		

Section 2 – Hazard(s) Identification

Classification	
Component	Classification
Creatinine Picric Acid Reagent Picric Acid	This material is classified as hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Creatinine Buffer Reagent Sodium Hydroxide Sodium Tetraborate	This material is considered hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200). This material is considered hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Acetic Acid Reagent Glacial Acetic Acid	This material is considered hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Creatinine Standard Creatinine HCl	This material is not classified as hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazardous Components

Component	GHS Label elements, including precautionary statements	
Picric Acid	Pictogram Hazard Symbol	
	Signal word	Danger
	Hazard statements	Flammable solid. Toxic if swallowed or in contact with skin May cause an allergic skin reaction. Harmful if inhaled.
	Precautionary statements	Keep away from heat/sparks/open flames/hot surfaces. No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ eye protection/ face protection. IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/ physician if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. If skin irritation or rash occurs: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. Store locked up. Dispose of contents/ container to an approved waste disposal plant


Hazards not otherwise classified (HNOC): Explosive when dry


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Section 2 – Hazard(s) Identification (Continued)

Hazardous Components

Component	GHS Label elements, including precautionary statements	
Sodium Hydroxide	Pictogram Hazard Symbol	
	Signal word	Danger
	Hazard statements	Causes severe skin burns and eye damage
	Precautionary statements	Keep only in original container. Wear eye/face protection. Wear protective gloves. Wash skin thoroughly after handling. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs: Get medical advice/attention.
Hazards not otherwise classified (HNOC)		None identified

Component	GHS Label elements, including precautionary statements	
Sodium Tetraborate	Pictogram Hazard Symbol	
	Signal word	Danger
	Hazard statements	May damage fertility or the unborn child
	Precautionary statements	Keep only in original container. Wear eye/face protection. Wear protective gloves. Wash skin thoroughly after handling. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs: Get medical advice/attention.
Hazards not otherwise classified (HNOC)		None identified

Component	GHS Label elements, including precautionary statements	
Glacial Acetic Acid	Pictogram Hazard Symbol	
	Signal word	Danger
	Hazard statements	Flammable liquid and vapor Causes severe skin burns and eye damage
	Precautionary statements	Keep only in original container. Wear eye/face protection. Wear protective gloves. Wash skin thoroughly after handling. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs: Get medical advice/attention.

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Hazards not otherwise classified (HNOC) None identified

Section 3 – Composition/Information on Ingredients

Component	Type	Chemical Concentration or %	CAS#
Creatinine Picric Acid Reagent	Solution	10 mM Picric Acid	88-89-1
Creatinine Buffer Reagent	Mixture	10 mM Sodium Tetraborate 240 mM Sodium Hydroxide	1303-96-4 1310-73-2
Creatinine Standard	Solution	5 mg/dl Creatinine Hydrochloride	19230-81-0
Acetic Acid Reagent	Solution	Glacial Acetic Acid	64-19-7

Section 4 – First Aid Measures

Ingestion	If victim is conscious and alert, wash out their mouth with water, and then give 2 to 4 cups of water. Never give anything by mouth to an unconscious person. Seek medical attention.
Inhalation	Move exposed person to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.
Skin Contact	Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Wash clothing before reuse. Get medical attention if irritation occurs.
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation occurs.

Section 5- Fire-fighting Measures

Extinguishing Media Suitable: Use water spray, foam, or dry chemical. Unsuitable: None known
Specific Hazards Hazardous combustion products: Sodium Oxides, Boron Oxides, Nitrogen Oxides, Carbon Oxides
Special protective equipment and precautions for fire-fighters Wear self-contained breathing apparatus and appropriate protective clothing for firefighting.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures Wear proper personal protective equipment (PPE) as indicated in section 8. Exercise appropriate precautions to avoid contact with skin or eyes and prevent inhalation.
Environmental precautions Refer to section 12 for Ecological Information.
Methods and materials for containment and cleaning up For liquid components, soak up on inert absorbent material. For dry components, sweep up without creating dust. Place materials into a suitable waste container. For disposal, refer to section 13. Do not contaminate the water sources or sewer.

Section 7 – Handling and Storage

Handling	Wear appropriate personal protective equipment (PPE) as indicated in section 8. Avoid contact with eyes, skin, and clothing. Avoid inhalation or ingestion.
Storage	Store at 15-30°C according to the label instructions in the original containers. Keep containers tightly closed when not in use.

Section 8 – Exposure Controls / Personal Protection

Components with workplace control parameters			
Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Picric Acid	TWA: 0.100 mg/m ³	TWA: 0.100 mg/m ³	TWA: 0.1 mg/m ³ ST: 0.3 mg/m ³
Sodium hydroxide	-	TWA: 2 mg/m ³	IDLH: 10 mg/m ³
Sodium Borate	STEL: 6 mg/m ³ TWA: 2 mg/m ³	-	5 mg/m ³
Glacial Acetic Acid	TWA: 10 ppm	(Vacated) TWA: 10 ppm	IDLH: 50 ppm

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	STEL: 15 ppm	(Vacated) TWA: 25 mg/m3 TWA: 10 ppm TWA: 25 mg/m3	TWA: 10 ppm TWA: 25 mg/m3 STEL: 15 ppm STEL: 37 mg/m3
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Engineering Controls

No special ventilation requirements. Good general ventilation is sufficient. Handle in accordance with food industrial hygiene and safety practices

Personal Protective Equipment

Respiratory Protection	Follow OSHA respirator regulations found in 29 CFR 1910.134
Hand Protection	Wear chemical-resistant, impervious gloves
Eye Protection	Safety glasses with side shields recommended.
Protective Clothing	Wear a lab coat.
Other protective equipment	Ensure the eyewash station and/or safety shower/wash is located near the work area.

General Hygiene Measures

Handle in accordance with good industrial hygiene practice. After handling the product, remove gloves using proper glove removal technique (without touching outer surface of glove), and dispose gloves according to applicable laws and good laboratory practices. Wash hands thoroughly. Also wash hands before eating, smoking, using the lavatory, and at end of the work period.

Section 9 – Physical and Chemical Properties

Appearance	Creatinine Picric Acid Reagent: Liquid Creatinine Buffer Reagent: Liquid Acetic Acid Reagent: Liquid Creatinine Standard: Liquid
Odor	No information available
Odor threshold	No information available.
pH	No information available.
Melting point / freezing point	No information available.
Initial boiling point and boiling range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability	No information available.
Upper/lower flammability or explosion limits	No information available.
Vapor pressure	No information available.
Vapor density	No information available.
Relative density	No information available.
Solubility	Soluble
Partition coefficient: n-octanol/water	No information available.
Auto-ignition Temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.

Section 10 – Stability and Reactivity

Reactivity	No dangerous reaction known under conditions of normal use.
Chemical stability	Stable under recommended storage conditions as indicated in section 7.
Possibility of hazardous reactions	No information available.
Conditions to avoid	Avoid high temperature.
Incompatible materials	No information available.
Hazardous decomposition products	No information available.

Section 11- Toxicological Information

Route of Entry/Exposure	Skin contact, eye contact
Effects of acute exposure	
Skin contact	May cause irritation.
Eye contact	May cause irritation.

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Ingestion May be harmful if ingested.
Inhalation May cause irritation to mucous membranes and upper respiratory tract.

Effects of chronic exposure No information available

Toxicity:

Component	Chemical	Acute Toxicity	Chronic Toxicity	Other Information
Creatinine Picric Acid Reagent	Picric Acid	No information available	No information available	No information available
Creatinine Buffer Reagent	Sodium Tetraborate Sodium Hydroxide	LD50 Dermal >10000 mg/kg (Rabbit) LD50 Oral = 2660 mg/kg (Rat) LD50 Dermal = 1350 mg/kg (Rabbit)	No information available	No information available
Acetic Acid Reagent	Glacial Acetic Acid	LD50 Oral: 3310 mg/kg (Rat) LD50 Dermal: 1060 mg/kg (Rabbit) LD50 Inhalation: 11.4 mg/L (Rat): 4h	No information available	No information available
Creatinine Standard	Creatinine HCl	No information available	No information available	No information available

Carcinogenicity

IARC	Sodium Tetraborate	Group 2A	CAS# 1303-96-4
NTP	No component present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.		
OSHA	No component present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.		
ACGIH	No component present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.		

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Section 12 – Ecological Information

Ecotoxicity	No information available
Persistence and degradability	No information available
Bio-accumulative potential	No information available
Mobility in soil	No information available
Other adverse effects	No information available
Water hazard class	No information available

Section 13 – Disposal Considerations

Waste residues and methods of disposal
 This product has to be disposed in accordance with applicable regional, national and local laws and regulations. Surplus and non-recyclable components should be taken to a licensed waste disposal contractor for disposal.

Contaminated Packaging
 Waste packaging should be recycled; however, since empty containers may retain some product residues, they should be taken to an approved waste handling site or given to a licensed waste disposal contractor for recycling or disposal, if recycling is not possible.

Section 14 – Transport Information

UN Number	None. Not regulated.
UN Proper shipping name	None. Not regulated.
Transport hazard class	Not classified as hazardous. Not regulated.
Packing group	Not applicable
Environmental hazards	No information available
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable
DOT (USA)	Not dangerous goods. Non-hazardous for transport.
IMDG	Not dangerous goods. Non-hazardous for maritime transport.
IATA	Not dangerous goods. Non-hazardous for air transport.
Special precautions	None

Section 15 – Regulatory Information



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United States Regulations

HCS Classification Not regulated

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

TSCA 8(b) Inventory Listed: Not determined

SARA 302/304: Not determined

SARA 311/312 Hazards Identification:

Sodium Hydroxide CAS# 1310-73-2	Acute Health Hazard Chronic Health Hazard Acute Health Hazard Chronic Health Hazard Fire Hazard
Sodium Tetraborate CAS# 1303-96-4	
Picric Acid CAS# 88-89-1	

SARA 313:

Picric Acid CAS# 88-89-1

Clean Water Act (CWA) 307: This product does not contain any toxic pollutants listed under the U.S. Clean Water Act section 307.

Clean Water Act (CWA) 311: This product does not contain any hazardous substances listed under the U.S. Clean Water Act section 311.

Clean Air Act (CAA) 112 accidental release prevention: This product does not contain any chemicals listed under the U.S. Clean Air Act section 112(r) for Accidental Release Prevention.

California Prop. 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

U.S State Right-to-Know Regulations

Chemical Name	New Jersey	Pennsylvania	Massachusetts
Sodium Hydroxide (1310-73-2)	X	X	X
Sodium Tetraborate (1303-96-4)	-	X	X
Glacial Acetic Acid (64-19-7)	X	X	X
Picric Acid (88-89-1)	X	X	X

Canada WHMIS:

Glacial Acetic Acid

CAS# 64-19-7

Combustible Liquid, Corrosive Material

Section 16 – Other Information

This product is labeled in accordance with CFR21 (Food and Drugs), Section 809.10.

The information contained herein has been compiled from data presented in various technical sources believed to be accurate.

We make no warranties, express or implied, and assume no liability in connection with the use of this information.

It is the user's responsibility to determine the suitability of this information and to assure the adoption of necessary safety precautions.

N/A = Not Applicable or Not Available

Date of SDS Preparation: 08/16/2016