Release Date: 8/4/15

REF GTIN	Product Name
7D71-22 **00380740012946**	***CLINICAL CHEMISTRY Phosphorus Reagent Kit***

Components:

7D71/R1	**CLINICAL CHEMISTRY Phosphorus Reagent 1**
7D71/R2	**CLINICAL CHEMISTRY Phosphorus Reagent 2**

Abbott Customers:
For additional information, please contact your Abbott Customer Support Center Representative by calling 1-800-527-1869, 1-800-323-9100, or 1-800-235-5396.

Abbott employees:
For additional information relative to the content of the MSDSs, please contact your local Safety Representative.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

*
1 Identification

· **Product name:** CLINICAL CHEMISTRY Phosphorus Reagent 1

· **ADD List number:** 7D71/R1

· **Application of the substance / mixture:** For In Vitro Diagnostic Use

· **Manufacturer / Supplier:**
Abbott Diagnostics
100 Abbott Park Road
Abbott Park, IL 60064-3500

Phone: 1-877-4 ABBOTT

· **Department issuing SDS:** Abbott Diagnostics Environmental Health and Safety

· **Emergency telephone number:**

Contact the CHEMTREC® Emergency Call Center for assistance with transportation or hazardous materials emergencies (24 hours/day, 7 days/week). Refer to Abbott customer number 675805.
- Telephone (800) 424-9300 (toll-free) if you are calling from within the United States, Canada, Puerto Rico and the Virgin Islands.
- Telephone +1 (703) 527-3887, the international and maritime number (collect calls accepted), if you are calling from outside the United States or from a ship at sea.

*
2 Hazard(s) identification

· **Classification of the substance or mixture**

Met. Corr.1	H290	May be corrosive to metals.
Skin Corr. 1A	H314	Causes severe skin burns and eye damage.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

· **Label elements**

· **GHS label elements:** The product is labelled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



· **Signal word:** Danger

· **Hazard-determining components of labeling:**
Sulphuric acid
polyethylene glycol octylphenyl ether

· **Hazard statements:**
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements:**

P260	Do not breathe mist / vapors / spray.
P280	Wear protective gloves/protective clothing/eye protection.
P234	Keep only in original container.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 1

P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P301+P330+P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P390	Absorb spillage to prevent material damage.
P501	Dispose of contents / container in accordance with local regulations.

· **Routes of Exposure:**
Skin
Eye
Inhalation

· **Hazard Overview**
· **Health:** Corrosive
· **Fire:** Noncombustible
· **Reactivity:** Minimal hazard - Stable, even in a fire. Not reactive with water. Not an oxidizer.

· **Carcinogenicity information**
· **NTP (National Toxicology Program)**
· **Interpretation of the NTP listing**
For the substance or mixture listed above, there is sufficient evidence of carcinogenicity from human studies that indicates a causal relationship between exposure to the substance or mixture and human cancer.
Applies specifically to strong inorganic acid mists containing sulfuric acid.
· **IARC (International Agency for Research on Cancer)**
· **Interpretation of the IARC listing**
Group 1: The substance or mixture listed above is carcinogenic to humans.
Applies specifically to strong inorganic acid mists containing sulfuric acid.

*
3 Composition/information on ingredients

· **Chemical characterization:** Mixture of chemical and/or biological substances for in vitro diagnostic use.

· **Hazardous chemical ingredients per U.S. OSHA criteria (29 CFR 1910.1200 Hazard Communication):**		
7664-93-9	Sulphuric acid	6.20%
9002-93-1	polyethylene glycol octylphenyl ether	2.90%

*
4 First-aid measures

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:**
Supply fresh air or oxygen; seek immediate medical attention.
Symptoms (such as breathing difficulty) may be delayed and lead to underestimating the possible damage. Provide medical observation for at least 48 hours after exposure.

· **After skin contact:**
Take off any clothing that the product touched. Rinse skin with running water for 15 to 20 minutes. Seek medical attention.
Symptoms (such as pain) may be delayed and lead to underestimating the possible damage. Provide medical observation for at least 24 hours after exposure.

· **After eye contact:**
Rinse open eye(s) cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention and appropriate follow-up. Wash hands after handling.
Symptoms (such as pain) may be delayed and lead to underestimating the possible damage. Provide medical observation for at least 48 hours after exposure.

· **After swallowing:**
Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

· **Information for Medical Personnel**

· **Most important symptoms and effects, both acute and delayed:**
Cramps
Gastric or intestinal disorders
Nausea
Possible chemical burns to the skin and to the eyes
Respiratory irritation

· **Medical conditions aggravated by exposure:**
Pre-existing eye ailments
Pre-existing gastrointestinal tract ailments
Pre-existing respiratory ailments
Pre-existing skin ailments
Possibly pre-existing skin and eye ailments.

*

5 Fire-fighting measures

· **Suitable extinguishing agents**
Dry chemical, carbon dioxide (CO2), water spray or regular foam.
- Caution: CO2 will displace air in confined spaces and may cause an oxygen-deficient atmosphere.
- For larger fires: There are no unique chemical or reactivity hazards that would impact firefighting decisions related to this product. Use firefighting measures that suit the environment.

· **Special hazards arising from the substance or mixture**
There are no unique chemical or reactivity hazards that would impact firefighting decisions due to the chemicals in this product.

· **Protective equipment**
For large fires, wear appropriate heat- and flame-resistant personal protective equipment and a NFPA/NIOSH approved positive-pressure, self-contained breathing apparatus.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 1

*
6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Minimize exposure by using appropriate personal protective equipment as listed in Section 8. Stop leak if possible. Keep unprotected persons away.

· **Environmental precautions**
Prevent liquid and vapor from entering sewage system, storm drains, surface waters, and soil.

· **Methods and material for containment and cleaning up**
Ensure adequate ventilation.
Blot up small volumes of spilled or spattered product with paper towels or similar materials.
- Contain larger spills by placing absorbants around the outside edges of the spill. Absorb with any material suitable for water-based liquids - e.g. paper towels, universal sorbents, sand, diatomite, sawdust, etc.

Clean the affected area. Suitable cleaners are:
- warm water and detergent or similar cleansing agent

Dispose of spilled and contaminated material in accordance with Federal, State, and Local regulations. See Section 13 for information that may impact disposal of materials contaminated with this product.

· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

*
7 Handling and storage

· **Precautions for safe handling:**
Ensure good ventilation in the workplace.
Prevent formation of aerosols or vapors.
Avoid contact with skin.
Avoid contact with eyes.

· **Information about protection against explosions and fires:** No special measures required.

· **Requirements to be met by storerooms and receptacles:**
Store only in the original container.
Refer to the package insert or product label for additional information on storage conditions for product quality.

· **Information about storage in one common storage facility:** Store in original packaging.

· **Further information about storage conditions:**
Keep containers tightly sealed.
Protect from heat and direct sunlight.

*
8 Exposure controls/personal protection

· **Components with Occupational Exposure Limits**
The product does not contain any hazardous ingredients with occupational exposure limits established by OSHA, ACGIH, or NIOSH.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 1

· **General protective and hygienic measures:**
Always maintain good housekeeping and follow general precautionary measures. Do not eat, drink or store food and beverages in areas where chemicals or specimens are used. Wash hands before breaks, after handling reagents and specimens, and at the end of the workshift.

Avoid contact with the skin.
Avoid contact with the eyes.
Immediately remove all soiled and contaminated clothing.
Do not breathe gases / fumes / aerosols.

· **Breathing equipment:**
Normal use and storage of product - respiratory protection is not necessary if room is well ventilated.

Small-volume spills (e.g. small enough to clean up with a paper towel or small sorbent pad) - respiratory protection should not be necessary if room is well ventilated.

Other unusual conditions (e.g. volume spilled too big to clean up with materials in arm's reach) - Use appropriate NIOSH-approved air-purifying respirator if airborne chemical concentrations may exceed the exposure limit (if any) listed above.

Hazardous Materials Emergencies or Firefighting - use NIOSH/NFPA-approved respiratory protection.

· **Hand protection:**
Wear impervious gloves if hand contact with the material is anticipated. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

· **Material of gloves and breakthrough time of the glove material:**
The glove material must be suitable for use in a microbiological laboratory and have a measured breakthrough time of at least 30 minutes, such as those with a Class 2 protection index per EN374 (or equivalent standard applicable in your region). NOTE: This recommendation applies only to the product stated in this Safety Data Sheet. When dissolving in or mixing with other substances, contact the supplier of approved gloves.

· **Eye protection:**
Wear safety glasses or other protective eyewear. If splash potential exists, wear full face shield or goggles.

· **Body protection:**
Normal use: protect personal clothing from spatters and small spills. Wear a laboratory coat (or other protective clothing required by your institution).
Larger spills (e.g. that can saturate cloth): wear appropriate water-repellant covering over clothing.

*

9 Physical and chemical properties

· **General Information**

· **Form:**	Liquid
· **Color:**	Colorless
· **Odor:**	Odorless
· **pH-value at 20 °C (68 °F)**	1.2
· **Melting point/Melting range:**	Not determined
· **Boiling point/Boiling range:**	Not determined

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 1

· **Flash point**	Not applicable
· **Flammability (solid, gaseous)**	Not applicable
· **Auto igniting**	Product is not self-igniting.
· **Danger of explosion**	Product does not present an explosion hazard.
· **Explosion limits**	
· **Lower:**	Not determined
· **Upper:**	Not determined
· **Density at 20 °C (68 °F)**	1.041 g/cm³ (8.687 lbs/gal)
· **Evaporation rate:**	Not determined
· **Solubility in / Miscibility with**	
· **Water:**	Fully miscible
· **Dynamic:**	Not determined
· **Water:**	90.9 %

*
10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided**
No decomposition if used and stored according to specifications.

· **Possibility of hazardous reactions:** No dangerous reactions known.

· **Conditions to avoid:** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

· **Hazardous decomposition products:** No dangerous decomposition products known.

*
11 Toxicological information

· **Acute toxicity**

· **LD50/LC50 values for hazardous ingredients per OSHA criteria:**

· **Ingredients (100% pure substance/s):**		
7664-93-9 Sulphuric acid		
Oral	LD50	> 500 mg/kg (rat)
Dermal	LD50	> 1000 mg/kg (rabbit)
Inhalation	LC50 2 h	0.320-0.510 mg/l (mouse) TCLo = 3 mg/m3/24 weeks in humans for sulfuric acid.
	LC50 7 h	0.018 mg/l (guinea pig)
	Target Organ Effects	(human) Long-term exposure to sulfuric acid mist has caused erosion of teeth, irritation of the respiratory tract and gastrointestinal disturbances.

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 1

9002-93-1 polyethylene glycol octylphenyl ether		
Oral	LD50	1800 mg/kg (rat)

· **Primary toxicological effects of the final product:**
· **Skin irritation:** Causes severe burns on skin and mucous membranes.
· **Eye irritation:** Causes severe burns. Effects may be delayed.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**
Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
7664-93-9	Sulphuric acid	Group 1

· NTP (National Toxicology Program)		
7664-93-9	Sulphuric acid	K

· OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

· **Target organs/systems:**
Eye
Gastrointestinal tract
Skin and eye
Skin
Respiratory tract

*
12 Ecological information

· **Aquatic toxicity:** No further relevant information available.

· **Additional ecological information**
· **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course, or sewage system.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms.

· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable
· **vPvB:** Not applicable

*
13 Disposal considerations

· **Recommendation for disposal of unused product:**
Dispose in accordance with federal, state and local regulations.
· **Recommendation for disposal of packaging:**
Non-contaminated packaging may be used for recycling. Refer to applicable local regulations and institutional policies.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 1

For disposal of contaminated packaging, refer to applicable local regulations and institutional policies.

· **Recommended cleansing agent:** Water with cleansing agents, if necessary.

*

14 Transport information

· **DOT, IMDG, IATA** UN3264

· **UN proper shipping name**
· **DOT, ADR** Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid)
· **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULPHURIC ACID)

· **Transport hazard class(es)**

· **DOT**



· **Class** 8 Corrosive substances
· **Label** 8
· **Class** 8 Corrosive substances
· **Label** 8

· **IMDG, IATA**



· **Class** 8 Corrosive substances
· **Label** 8

· **DOT, IMDG, IATA** III

· **Environmental hazards**
· **Marine pollutant:** No
· **EMS Number:** F-A,S-B
· **Segregation groups** Acids

· **Additional information** The information in this section reflects the actual chemical name and transport information for the material. Due to legal exceptions that are permitted by transport regulations, the proper shipping name and transport information included on the actual shipping document may differ. When this product is shipped as a component of an in vitro diagnostic medical device, exceptions that may be used include, but are not limited to, the following:
- Chemical Kit
- Excepted Quantity
- Consumer Commodity

· **ADR**
· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 1

· **IMDG**
· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

*

15 Regulatory information

· **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA):**

· **Section 302/304 (40CFR355.30 / 40CFR355.40):**

7664-93-9	Sulphuric acid

· **Section 313 (40CFR372.65):**

7664-93-9	Sulphuric acid

· **California Proposition 65 (USA):**

· **Chemicals known to cause cancer:**

7664-93-9	Sulphuric acid

· **Chemicals known to cause female reproductive toxicity:**

None of the ingredients is listed.

· **Chemicals known to cause male reproductive toxicity:**

None of the ingredients is listed.

· **Chemicals known to cause developmental reproductive toxicity:**

None of the ingredients is listed.

· Labelling according to Directives 67/548/EEC or 1999/45/EC

· **Hazard designation of product:**



Corrosive

· **Hazard determining substance/s of labeling:**
Sulphuric acid
· **Risk phrases:**
34 Causes burns.
· **Safety phrases:**
20 When using do not eat or drink.
23 Do not breathe vapour/spray.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
30 Never add water to this product.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately.
60 This material and its container must be disposed of as hazardous waste.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 1

*
16 Other information

The information and recommendations contained herein are based upon information or tests believed to be reliable. Abbott Laboratories does not guarantee the accuracy or completeness of this information or recommendations contained herein, NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE.

This information is not a substitute for the advice of a health care professional, nor is it a recommendation for any particular course of treatment. It is not intended to supplement, modify or supersede any information (e.g. labeling and package inserts) provided with respect to the medical use of the product. Abbott Laboratories assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

· **Department issuing SDS**

- Abbott Diagnostics Safety, Health and Environmental Assurance
  Department 0571

· **Contact**

- General information about this product:

Abbott Diagnostics
Technical Support
100 Abbott Park Road
Abbott Park, IL 60064-3500

Phone: 1-877-4 ABBOTT

· **Date of preparation / last revision** 08/04/2015 / 37

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (Division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: persistent, bioaccumulative and toxic
vPvB: very persistent and very bioaccumulative
Met. Corr.1: Corrosive to metals, Hazard Category 1
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

· *** Sections marked with an asterisk (*) have been altered since the previous version.**

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

*
1 Identification

· **Product name:** CLINICAL CHEMISTRY Phosphorus Reagent 2

· **ADD List number:** 7D71/R2

· **Application of the substance / mixture:** For In Vitro Diagnostic Use

· **Manufacturer / Supplier:**
Abbott Diagnostics
100 Abbott Park Road
Abbott Park, IL 60064-3500

Phone: 1-877-4 ABBOTT

· **Department issuing SDS:** Abbott Diagnostics Environmental Health and Safety

· **Emergency telephone number:**

Contact the CHEMTREC® Emergency Call Center for assistance with transportation or hazardous materials emergencies (24 hours/day, 7 days/week). Refer to Abbott customer number 675805.
- Telephone (800) 424-9300 (toll-free) if you are calling from within the United States, Canada, Puerto Rico and the Virgin Islands.
- Telephone +1 (703) 527-3887, the international and maritime number (collect calls accepted), if you are calling from outside the United States or from a ship at sea.

*
2 Hazard(s) identification

· **Classification of the substance or mixture**

Met. Corr.1	H290	May be corrosive to metals.
Skin Corr. 1A	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.

· **Label elements**

· **GHS label elements:** The product is labelled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



· **Signal word:** Danger

· **Hazard-determining components of labeling:**
polyethylene glycol octylphenyl ether
Sulphuric acid

· **Hazard statements:**
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

· **Precautionary statements:**

P260	Do not breathe mist / vapors / spray.
P280	Wear protective gloves/protective clothing/eye protection.
P234	Keep only in original container.
P264	Wash hands thoroughly after handling.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 2

P273	Avoid release to the environment.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a poison center/doctor.
P301+P330+P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P390	Absorb spillage to prevent material damage.
P363	Wash contaminated clothing before reuse.
P501	This material and its container must be disposed of in a safe way.

· **Routes of Exposure:**
Skin
Eye
Inhalation

· **Hazard Overview**
· **Health:** Corrosive
· **Fire:** Noncombustible
· **Reactivity:** Minimal hazard - Stable, even in a fire. Not reactive with water. Not an oxidizer.

· **Carcinogenicity information**
· **NTP (National Toxicology Program)**
· **Interpretation of the NTP listing**
For the substance or mixture listed above, there is sufficient evidence of carcinogenicity from human studies that indicates a causal relationship between exposure to the substance or mixture and human cancer.
Applies specifically to strong inorganic acid mists containing sulfuric acid.
· **IARC (International Agency for Research on Cancer)**
· **Interpretation of the IARC listing**
Group 1: The substance or mixture listed above is carcinogenic to humans.
Applies specifically to strong inorganic acid mists containing sulfuric acid.

*
3 Composition/information on ingredients

· **Chemical characterization:** Mixture of chemical and/or biological substances for in vitro diagnostic use.

· **Hazardous chemical ingredients per U.S. OSHA criteria (29 CFR 1910.1200 Hazard Communication):**		
7664-93-9	Sulphuric acid	6.20%
9002-93-1	polyethylene glycol octylphenyl ether	2.90%

*
4 First-aid measures

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:**
Supply fresh air or oxygen; seek immediate medical attention.
Symptoms (such as breathing difficulty) may be delayed and lead to underestimating the possible damage. Provide medical observation for at least 48 hours after exposure.

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 2

· **After skin contact:**
Take off any clothing that the product touched. Rinse skin with running water for 15 to 20 minutes. Seek medical attention.
Symptoms (such as pain) may be delayed and lead to underestimating the possible damage. Provide medical observation for at least 24 hours after exposure.

· **After eye contact:**
Rinse open eye(s) cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention and appropriate follow-up. Wash hands after handling.
Symptoms (such as pain) may be delayed and lead to underestimating the possible damage. Provide medical observation for at least 48 hours after exposure.

· **After swallowing:**
Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

· **Information for Medical Personnel**

· **Most important symptoms and effects, both acute and delayed:**
Cramps
Gastric or intestinal disorders
Nausea
Possible chemical burns to the skin and to the eyes
Respiratory irritation

· **Medical conditions aggravated by exposure:**
Pre-existing eye ailments
Pre-existing gastrointestinal tract ailments
Pre-existing respiratory ailments
Pre-existing skin ailments
Possibly pre-existing skin and eye ailments.

*
5 Fire-fighting measures

· **Suitable extinguishing agents**
Dry chemical, carbon dioxide (CO2), water spray or regular foam.
- Caution: CO2 will displace air in confined spaces and may cause an oxygen-deficient atmosphere.
- For larger fires: There are no unique chemical or reactivity hazards that would impact firefighting decisions related to this product. Use firefighting measures that suit the environment.

· **Special hazards arising from the substance or mixture**
There are no unique chemical or reactivity hazards that would impact firefighting decisions due to the chemicals in this product.

· **Protective equipment**
For large fires, wear appropriate heat- and flame-resistant personal protective equipment and a NFPA/NIOSH approved positive-pressure, self-contained breathing apparatus.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 2

*
6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Minimize exposure by using appropriate personal protective equipment as listed in Section 8. Stop leak if possible. Keep unprotected persons away.

· **Environmental precautions**
Prevent liquid and vapor from entering sewage system, storm drains, surface waters, and soil.

· **Methods and material for containment and cleaning up**
Ensure adequate ventilation.
Blot up small volumes of spilled or spattered product with paper towels or similar materials.
- Contain larger spills by placing absorbants around the outside edges of the spill. Absorb with any material suitable for water-based liquids - e.g. paper towels, universal sorbents, sand, diatomite, sawdust, etc.

Clean the affected area. Suitable cleaners are:
- warm water and detergent or similar cleansing agent

Dispose of spilled and contaminated material in accordance with Federal, State, and Local regulations. See Section 13 for information that may impact disposal of materials contaminated with this product.

· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

*
7 Handling and storage

· **Precautions for safe handling:**
Ensure good ventilation in the workplace.
Prevent formation of aerosols or vapors.
Avoid contact with skin.
Avoid contact with eyes.

· **Information about protection against explosions and fires:** No special measures required.

· **Requirements to be met by storerooms and receptacles:**
Store only in the original container.
Refer to the package insert or product label for additional information on storage conditions for product quality.

· **Information about storage in one common storage facility:** Store in original packaging.

· **Further information about storage conditions:**
Keep containers tightly sealed.
Protect from heat and direct sunlight.

*
8 Exposure controls/personal protection

· **Components with Occupational Exposure Limits**
The product does not contain any hazardous ingredients with occupational exposure limits established by OSHA, ACGIH, or NIOSH.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 2

· **General protective and hygienic measures:**
Always maintain good housekeeping and follow general precautionary measures. Do not eat, drink or store food and beverages in areas where chemicals or specimens are used. Wash hands before breaks, after handling reagents and specimens, and at the end of the workshift.

Avoid contact with the skin.
Avoid contact with the eyes.
Immediately remove all soiled and contaminated clothing.
Do not breathe gases / fumes / aerosols.

· **Breathing equipment:**
Normal use and storage of product - respiratory protection is not necessary if room is well ventilated.

Small-volume spills (e.g. small enough to clean up with a paper towel or small sorbent pad) - respiratory protection should not be necessary if room is well ventilated.

Other unusual conditions (e.g. volume spilled too big to clean up with materials in arm's reach) - Use appropriate NIOSH-approved air-purifying respirator if airborne chemical concentrations may exceed the exposure limit (if any) listed above.

Hazardous Materials Emergencies or Firefighting - use NIOSH/NFPA-approved respiratory protection.

· **Hand protection:**
Wear impervious gloves if hand contact with the material is anticipated. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

· **Material of gloves and breakthrough time of the glove material:**
The glove material must be suitable for use in a microbiological laboratory and have a measured breakthrough time of at least 30 minutes, such as those with a Class 2 protection index per EN374 (or equivalent standard applicable in your region). NOTE: This recommendation applies only to the product stated in this Safety Data Sheet. When dissolving in or mixing with other substances, contact the supplier of approved gloves.

· **Eye protection:**
Wear safety glasses or other protective eyewear. If splash potential exists, wear full face shield or goggles.

· **Body protection:**
Normal use: protect personal clothing from spatters and small spills. Wear a laboratory coat (or other protective clothing required by your institution).
Larger spills (e.g. that can saturate cloth): wear appropriate water-repellant covering over clothing.

*

9 Physical and chemical properties

· **General Information**

· **Form:**	Liquid
· **Color:**	Colorless, yellow, green or blue
· **Odor:**	Odorless
· **pH-value at 20 °C (68 °F)**	1.2
· **Melting point/Melting range:**	Not determined
· **Boiling point/Boiling range:**	Not determined

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 2

· **Flash point**	Not applicable
· **Flammability (solid, gaseous)**	Not applicable
· **Auto igniting**	Product is not self-igniting.
· **Danger of explosion**	Product does not present an explosion hazard.
· **Explosion limits**	
· **Lower:**	Not determined
· **Upper:**	Not determined
· **Density at 20 °C (68 °F)**	1.043 g/cm³ (8.704 lbs/gal)
· **Evaporation rate:**	Not determined
· **Solubility in / Miscibility with**	
· **Water:**	Fully miscible
· **Dynamic:**	Not determined
· **Water:**	90.6 %

*
10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided**
No decomposition if used and stored according to specifications.

· **Possibility of hazardous reactions:** No dangerous reactions known.

· **Conditions to avoid:** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

· **Hazardous decomposition products:** No dangerous decomposition products known.

*
11 Toxicological information

· **Acute toxicity**

· **LD50/LC50 values for hazardous ingredients per OSHA criteria:**

· **Ingredients (100% pure substance/s):**		
7664-93-9 Sulphuric acid		
Oral	LD50	> 500 mg/kg (rat)
Dermal	LD50	> 1000 mg/kg (rabbit)
Inhalation	LC50 2 h	0.320-0.510 mg/l (mouse) TCLo = 3 mg/m3/24 weeks in humans for sulfuric acid.
	LC50 7 h	0.018 mg/l (guinea pig)
	Target Organ Effects	(human) Long-term exposure to sulfuric acid mist has caused erosion of teeth, irritation of the respiratory tract and gastrointestinal disturbances.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 2

9002-93-1 polyethylene glycol octylphenyl ether		
Oral	LD50	1800 mg/kg (rat)

· **Primary toxicological effects of the final product:**
· **Skin irritation:** Causes severe burns on skin and mucous membranes.
· **Eye irritation:** Causes severe burns. Effects may be delayed.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**
Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
7664-93-9	Sulphuric acid	Group 1

· NTP (National Toxicology Program)		
7664-93-9	Sulphuric acid	K

· OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

· **Target organs/systems:**
Eye
Gastrointestinal tract
Skin and eye
Skin
Respiratory tract

*
12 Ecological information

· **Aquatic toxicity:** No further relevant information available.

· **Additional ecological information**
· **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course, or sewage system.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms.

· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable
· **vPvB:** Not applicable

*
13 Disposal considerations

· **Recommendation for disposal of unused product:**
Dispose in accordance with federal, state and local regulations.
· **Recommendation for disposal of packaging:**
Non-contaminated packaging may be used for recycling. Refer to applicable local regulations and institutional policies.

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 2

For disposal of contaminated packaging, refer to applicable local regulations and institutional policies.

· **Recommended cleansing agent:** Water with cleansing agents, if necessary.

*

14 Transport information

· **DOT, IMDG, IATA** UN3264

· **UN proper shipping name**
· **DOT, ADR** Corrosive liquid, acidic, inorganic, n.o.s.
· **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

· **Transport hazard class(es)**

· **DOT, ADR, IMDG, IATA**
· **Class** 8 Corrosive substances
· **DOT, IMDG, IATA** III

· **Environmental hazards**
· **Marine pollutant:** No
· **EMS Number:** F-A,S-B
· **Segregation groups** Acids

· **Additional information** The information in this section reflects the actual chemical name and transport information for the material. Due to legal exceptions that are permitted by transport regulations, the proper shipping name and transport information included on the actual shipping document may differ. When this product is shipped as a component of an in vitro diagnostic medical device, exceptions that may be used include, but are not limited to, the following:
- Chemical Kit
- Excepted Quantity
- Consumer Commodity

· **ADR**
· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

· **IMDG**
· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

*

15 Regulatory information

· **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA):**

· **Section 302/304 (40CFR355.30 / 40CFR355.40):**	
7664-93-9	Sulphuric acid

· **Section 313 (40CFR372.65):**	
7664-93-9	Sulphuric acid

· **California Proposition 65 (USA):**

· **Chemicals known to cause cancer:**	
7664-93-9	Sulphuric acid

· **Chemicals known to cause female reproductive toxicity:**
None of the ingredients is listed.

· **Chemicals known to cause male reproductive toxicity:**
None of the ingredients is listed.

· **Chemicals known to cause developmental reproductive toxicity:**
None of the ingredients is listed.

· Labelling according to Directives 67/548/EEC or 1999/45/EC

· **Hazard designation of product:**



Corrosive

· **Hazard determining substance/s of labeling:**
Sulphuric acid
polyethylene glycol octylphenyl ether

· **Risk phrases:**
34 Causes burns.

· **Safety phrases:**
23 Do not breathe vapour/spray.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
30 Never add water to this product.
35 This material and its container must be disposed of in a safe way.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately.

*

16 Other information

The information and recommendations contained herein are based upon information or tests believed to be reliable. Abbott Laboratories does not guarantee the accuracy or completeness of this information or recommendations contained herein, NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE.

This information is not a substitute for the advice of a health care professional, nor is it a recommendation for any particular course of treatment. It is not intended to supplement, modify or supersede any information (e.g. labeling and package inserts) provided with respect to the medical use of the product. Abbott Laboratories assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

· Department issuing SDS

- Abbott Diagnostics Safety, Health and Environmental Assurance
Department 0571

Safety Data Sheet

© Abbott Laboratories Release date 08/04/2015 Last alteration on 08/04/2015

Product name: CLINICAL CHEMISTRY Phosphorus Reagent 2

· Contact

- General information about this product:

Abbott Diagnostics
Technical Support
100 Abbott Park Road
Abbott Park, IL 60064-3500

Phone: 1-877-4 ABBOTT

· **Date of preparation / last revision** 08/04/2015 / 28

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (Division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: persistent, bioaccumulative and toxic
vPvB: very persistent and very bioaccumulative
Met. Corr.1: Corrosive to metals, Hazard Category 1
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

· *** Sections marked with an asterisk (*) have been altered since the previous version.**