



UNITECH SCIENTIFIC LLC

POT UniFlex Reagent SDS POT-F

SAFETY DATA SHEET (HCS - 29 CFR 1910.1200(g))

1. CHEMICAL IDENTIFICATION and COMPANY CONTACT INFORMATION

Product trade name: Potassium Reagent	Supplier:	Unitech Scientific LLC
Product No. : POT-F		12026 Centralia Rd, Ste H
Recommended Use: Analysis		Hawaiian Gardens, CA 90716, USA
Restrictions on Use: N/A		
Date of Issue: January 2011	Information, Operations:	562 924-5150
Date of Revision: 01 Aug 2015	Information in case of Emergency:	562 924-5150

2. HAZARDS IDENTIFICATION

2.1 classification of compound

These components are not classified dangerous.

2.2 physical-chemical danger

These components do not contain any particularly important physical chemical hazardous characteristics.

2.3 adverse effects for human health

Under the normal foreseen conditions of usage, this product doesn't possess any dangerous characteristics for the human health.

2.4 adverse effects for environment

Under the normal and foreseen condition of usage, the product doesn't possess any dangerous properties for the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Dangerous components of the preparation.

- substance: sodium azide
concentration: 0.1 %
symbol letters: T+
R phrases: 28-32-50/53
CAS number: 026628-22-8
CE number: 247-852-1

3.2 classification of the substances sodium azide - very toxic, because of its acute lethal effects For the meaning of R phrases, please refer to paragraph 16 "Other information"

- o Buffer R1 (liquid)
- o R1 Buffer/Enzyme/Substrate (powder)
- o Diluent R2 (liquid)
- o Enzyme R2b (powder)
- o 150 mg/L Potassium Standard (liquid)

4. FIRST AID MEASURES

Symptoms:	No symptoms expected
After inhalation	There is no knowledge of any negative effects following product inhalation.
After skin or eyes contacts	There is no knowledge of any negative effects due to contact with this product to eyes or skin.
After swallowing	There is no knowledge of negative effects following ingestion.

5. FIRE-FIGHTING MEASURES

5.1 suitable extinguishing media

This product is not inflammable; nevertheless, in the case in which has involved in a fire, it is advisable to use the fit extinguishing media to extinguish the source of ignition.

5.2 extinguishing media which must not be used for safety reasons

It is advisable to avoid the usage of extinguishing media that are not compatible with the physical chemical properties of the compound and which may develop combustive substances.

5.3 special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

The release of an irritating smoke may result in case of fire.

5.4 Special protective equipment for fire-fighters

Open cycle breathing apparatus and fire-proof equipment: helmet, jacket, pants, boots, gloves.

6. SPILLAGE, ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Don on personal protective equipment (PPE) to avoid skin and eye contact, as well as product inhalation.

Anyone who is not directly involved in rescue operations should be kept away from the scene.

Suppress or exclude every source of ignition that could possibly start a fire.

Stop the release of the product, provided the operation does not jeopardize the operators' safety.

Neither touch nor trample a product that has leaked onto the ground.

6.2 Environmental precautions

Take all the necessary steps to avoid air propagation and water table, waterways and soil contamination, by means of appropriate mediums or retaining materials:

- Liquids shall be absorbed with earth, dry sand, vermiculites or any other non-flammable absorbing material;
- Solids shall be removed by mechanical means; also, arrange for roofing or retainer walls to prevent dusting;
- Vapors shall be suppressed with nebulized water, provided no soil or water pollution hazards exist.

6.3 Methods for cleaning

Remove with mechanical means; alternatively, cover or absorb with earth, dry sand, earth or any other non-flammable compound, before transferring the product into an appropriate container for further disposal.

7. HANDLING AND STORAGE

7.1 Handling

Use only in facilities that are well-ventilated or provided with a localized suction system.

7.2 Storage

Both containers and associated materials used for product packaging shall comply, wherever applicable with the standards governing road haulage of hazardous materials.

7.3 Specific use(s)

For any particular usage of the product obtain specific information or contact the supplier technical service.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limit values

VLEP for sodium azide:

0,1 mg/mc 8 h [- ppm 8 h]

0,3 mg/mc 15 min [- ppm 15 min]

note: Skin

rule: D.M. 26.02.04

8.2.1 Respiratory protection

Generally speaking, breathing protection shall be enforced by means of technical provisions designed to prevent the operator from coming in contact with the substance.

Products are best handled in a closed system; if this procedure cannot be implemented, arrange for a localized (stationary or mobile) suction system which returns drawn particles to an appropriate filter element or suppression system.

8.2.2 Hand protection

Selecting appropriate hand PPE depends on its ability to withstand chemical agents corrosion, taking into account test results as set forth in EN 374 standard.

Use latex, neoprene, cyanocarbon, vinyl PVC gloves.

8.2.3 Eye protection

Use protection goggles or a face shield made up of acetate.

8.2.4 Skin protection

You must use: apron, boots or complete protective clothes for the protection of skin.

8.2.5 Environmental exposure controls

In regards to the methods of usage of the product in various environmental compartments, it is advisable to respect local national or community norms and regulations set forth to protect the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Buffer R1**
- **Diluent R2**
- 150 mg/L Potassium Standard

appearance: LIQUID

- **R1 Buffer/Enzyme/Substrate**
- Enzyme R2b

appearance: POWDER

Odor: no data available

pH: TEA Buffer: 8.4; others not determined

Boiling point/-range, Vapor pressure, Relative density: not determined

Flammability: not flammable

Explosive Properties: not explosive
Solubility in water: water soluble

10. STABILITY AND REACTIVITY

10.1 conditions to avoid

Additionally to that has been already said, there is no know hazardous environmental reaction in the occurrence of spillage of this product.

10.2 materials to avoid

Avoid contact with acids, bases, oxidizers, reducing agents or any other substance which may cause hazardous reactions whereas not expressly indicated in the respective technical bulletins.

10.3 hazardous decomposition products

To our knowledge, there does not exist any significant levels of hazardous decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Exposure for inhalation

There is no availability of specific information based on scientific research or practical experiences to the toxicological effects due to the inhalation of the substances contained in this product.

11.2 Exposure for swallowing

12) There is no availability of information based on scientific research or practical experiences about the toxicological effects due to ingestion of substances contained in this product.

11.3 Exposure for skin and eyes contact

There is no availability of specific information based on scientific research or practical experiences to the toxicological effects due to the contact of the substances contained in this product with skin or eyes.

12. ECOLOGICAL INFORMATION

12.1 General environmental information

Use the product according to good working practices and avoid release in the atmosphere.

12.2 Ecotoxicity

This product does not contain any significant microbial inhibitory effect, thus disposal directly to sewage treatment plants is consented.

12.3 Mobility

This product does not contain any substances of which there are information about their note or presumed distribution in the environmental compartments or about their absorption/desorption.

12.4 Persistence and degradability

This product does not contain any substances of which is know the ability to degrade themselves in particular environmental circumstances following biodegradation or other reactions as oxidation or hydrolysis.

12.5 Bio accumulative potential

This product does not contain any substances of which information are been furnished about their ability to accumulate in living organisms and to pass through the food chain with reference to the values of Kow and BCF.

12.6 Other adverse effects

There is no availability of information based on scientific research or practical experiences to the ability of this product to contribute to the reduction of the ozone layer, to the photochemical reactions, to the global heating.

13. DISPOSAL CONSIDERATIONS

Product residuals shall be dismantled in compliance with regional and national applicable standards.

Before being dumped or destroyed and subject to decontamination, product containers shall be entrusted to plants specialized in recycling, or disposing of, toxic-noxious waste.

14. TRANSPORT INFORMATION

14.1 Particular precautions

During transportation, the following provisions shall be observed:

- The heaviest packages shall be arranged underneath and light or fragile packages secured to the top;
- Hazardous products shall be kept apart;
- Hazardous products in liquid form shall be secured under non-hazardous products;
- Flammable or combustible products shall be kept away from oxidizing or corrosive products.

14.2 Transport classification according to ADR/RID, IMDG/IMO, ICAO/IATA

15. REGULATORY INFORMATION

Additional domestic or Community provisions governing the use of the product are listed below:

- D.P.R. 303/56 "General procedure for occupational health and industrial hygiene."
- D.P.R. 547/55 "Procedures for the prevention of industrial injuries on the workplace."
- Lab. D. 626/94 "Implementation of Community directives with regard to the improvement of occupational health and safety conditions on the workplace."
- Lab. D. 334/99 "Monitoring significant accident hazards in connection with specific hazardous substances."

- Lab. D. 152/99 "Provisions regarding water protection from pollution."
- Lab. D. 22/97 "Implementation of the directives dealing with waste disposal."
- D.P.R. 203/88 "Implementation of the directives governing air quality standards."
- M.D. 12.08.1998 "Restrictions concerning the release and the use of some hazardous substances and compounds."
- D. Lvo 25/2002 "Implementation of the directive 98/24/CE on the protection of the health and of the safety of the workers against the risks derives from chemical agents during the work"

16. OTHER INFORMATION

List of R phrases:

R 28 = Very toxic if swallowed.

R 32 = Contact with acids liberates very toxic gas.

R 50/53 = Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The data reported in this safety data sheet have been gathered mostly from the following sources:

- National Toxicology Program (NTP) - U.S. Department of Health and Human Services
- NIOSH - Registry of Toxic Effects of Chemical Substances
- SAX - Dangerous Properties of Industrial Materials (7° ed.)

16.2 Information added, erased or modified after revision of the safety data sheet

This safety sheet version replaces all previous versions in all points.

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