

Potassium

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Identification: Potassium
Ref No. 0160, 0160-050, etc.

Test kit contains Potassium Boron Reagent, Sodium Hydroxide Reagent, Potassium TCA Precipitating Reagent, and Potassium Standard.

Company Identification: Stanbio Laboratory
1261 North Main Street
Boerne, TX 78006

Telephone Number: (830) 249-0772
Website: <http://www.stanbio.com>

SECTION 2 – HAZARDS IDENTIFICATION

Routes of Exposure: Only when used as directed.

Classification system: In compliance with OSHA's Hazard Communication Standard (29CFR 1910.1200), a chemical mixture is considered hazardous if it contains 1.0% or more of a hazardous compound or 0.1% or more of a carcinogen. The product contains hazardous material(s) in excess of these amounts; therefore, precautions adequate for the pure form of the material(s) are presented here.

National Fire Protection Association (NFPA) ratings (scale 0-4):

Health=0
Fire=0
Reactivity=0

Hazard Overview

Health: Minimal risk if used as directed.

Fire: Not considered a fire hazard.

Reactivity: Potassium reagent contains Sodium Tetraphenyl Boron, Sodium Hydroxide, and Trichloroacetic Acid. Minimal risk.

Special Hazards:

Sodium Tetraphenyl Boron: As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Sodium Hydroxide: Not combustible when exposed to heat or flame. Solid form (as solid) in contact with water may generate sufficient heat to ignite combustible materials. Contact with amphoteric metals such as aluminum, tin and zinc can generate flammable hydrogen gas.

Trichloroacetic Acid: Negligible fire hazard when exposed to heat or flame. With thermal decomposition, products may include toxic fumes of phosgene, toxic and corrosive fumes of hydrogen chloride, toxic oxides of carbon and chloroform.

Carcinogenicity information

OSHA (Occupational Safety and Health Administration): None of the ingredients is listed.

NTP (National Toxicology Program): None of the ingredients is listed.

IARC (International Agency for Research on Cancer): None of the ingredients is listed.

SECTION 3 – PRODUCT COMPOSITION

Potassium

The test kit is composed of Potassium Boron Reagent, Sodium Hydroxide Reagent, Potassium TCA Precipitating Reagent, and Potassium Standard.

Potassium Boron Reagent /0161 (The reagent contains by percentage the following amounts of chemicals)

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
Sodium Tetraphenyl Boron	143-66-8	6.85%

Sodium Hydroxide Reagent /0162 (The reagent contains by percentage the following amounts of chemicals)

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
Sodium Hydroxide	1310-73-2	10.00%

Potassium TCA Precipitating Reagent /0163 (The reagent contains by percentage the following amounts of chemicals)

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
Trichloroacetic Acid	76-03-9	5.00%

Potassium Standard /0164 (The reagent contains by percentage the following amounts of chemicals)

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
Trichloroacetic Acid	76-03-9	5.00%

SECTION 4 – FIRST AID MEASURES

After inhalation: Provide fresh air. Restore or support breathing. Keep victim warm and quiet. Get medical attention.

After skin contact: Flush skin with water for 15 minutes. Wash affected area thoroughly with soap and water. Remove contaminated clothing and shoes. Get medical attention immediately.

After eye contact: Flush eyes including under the eyelids with water for 15 minutes. Do NOT allow victim to rub or keep eyes closed. For TCA Precipitating Reagent continue irrigating with normal saline until the pH has returned to normal for 30- 60 minutes. Cover with sterile bandages. Get medical attention immediately.

After swallowing: For TCA Precipitating Reagent, do not use gastric lavage or emesis. Dilute the acid immediately by drinking large quantities of water or milk. If vomiting persists, administer fluids repeatedly. Ingested acid must be diluted approximately 100 fold to render it harmless to tissues. Maintain airway and treat for shock. If vomiting occurs, keep head below hips to help prevent aspiration. For Sodium Hydroxide Reagent, do NOT induce vomiting. Drink large quantities of water and milk. Follow with dilute vinegar or citrus juice. Get medical attention immediately.

SECTION 5 – FIRE FIGHTING MEASURES

Suitable extinguishing agents:

Potassium

Sodium Tetraphenyl Boron: Water spray, carbon dioxide or dry powder. Water spray may be used to keep fire-exposed containers cool.

Sodium Hydroxide: Use flooding amounts of water.

Trichloroacetic Acid: Use water spray, dry chemical, carbon dioxide or alcohol foam.

Use water spray to cool fire-exposed containers. Apply from as far a distance as possible.

Protective equipment: Wear a self-contained breathing apparatus and protective clothing.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Safe work practices: Disposal should be made in accordance with existing disposal practices employed for infectious waste.

Measures for environmental protection: Prevent liquid and vapor from entering sewage system, storm drains, surface waters, and soil.

Measures for cleaning/collecting: Wash spill area with appropriate cleaning materials. Dispose of in a manner consistent with federal, state and local regulation.

SECTION 7 – HANDLING AND STORAGE

Information for safe handling: Refer to the package insert or product label for additional information on storage conditions.

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

Requirements to be met by storerooms and receptacles: Refer to the package insert or product label for additional information on storage conditions.

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

Further information about storage conditions: Protect from heat and direct sunlight.

SECTION 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.

General protective and hygienic measures: Always maintain good housekeeping. Do not eat, drink or store food and beverages in areas where chemicals are used. Wash hands before breaks and at the end of the work shift.

Breathing equipment: Use adequate protection to prevent inhalation, as well as good ventilation.

Hand protection: Wear necessary gloves when handling.

Eye protection: Wear appropriate safety glasses or other protective eyewear.

Body protection: Wear apron, laboratory coat or appropriate protective clothing when handling.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form: Solid

Color: Not applicable

Odor: Not identified.

Boiling point/ Boiling range

Sodium Tetraphenyl Boron - NA/NA

Sodium Hydroxide – 1390°C/NA

Trichloroacetic Acid – 388°C/NA

Flash point:

SDS.0160.00 rev. 04/2015

Potassium

Potassium

Sodium Tetraphenyl Boron - NA

Sodium Hydroxide - NA

Trichloroacetic Acid - NA

Auto igniting: Not self-igniting

Danger of explosion: not applicable

Density at 20°C (68°F): not applicable

Solubility in/Miscibility with Water: not applicable

PH-value at 20°C (68°F): not applicable

Water: not applicable

SECTION 10 – STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications

Dangerous reactions: No dangerous reactions known.

Stability: Stable at room temperature in closed containers under normal storage and handling.

Incompatibility: Avoid bases as possibility for violent reactions exist. Avoid exposure to copper and dimethylsulfoxide, as an intense exothermic reaction will occur. Avoid contacts with metal in the presence of moisture, as resulting material will be corrosive.

Hazardous Polymerization: Will not occur.

Dangerous reactions: No dangerous decomposition products known.

SECTION 11 – TOXICOLOGICAL INFORMATION

LD50/50LC values for hazardous ingredients per OSHA criteria:

Ingredients (100% pure substance/s)

Sodium Tetraphenyl Boron- LD50 (oral rat): NA

Sodium Hydroxide- LD50 (oral rat): NA

Trichloroacetic Acid- LD50 (oral rat): 400 mg/kg

Primary toxicological effects of the final product

Skin irritation:

Sodium Tetraphenyl Boron- Skin contact may cause irritation.

Sodium Hydroxide- Skin contact may result in severe and rapid corrosion. Dilute solutions exert a destructive effect following prolonged contact. If not removed from the skin, severe burns with deep ulceration will occur.

Trichloroacetic Acid- Skin contact may cause severe pain, burns and possibly brownish or yellowish stains. Burns may be deep with sharp edges and heal slowly with scar tissue formation.

Eye irritation:

Sodium Tetraphenyl Boron- Eye contact will be irritating.

Sodium Hydroxide- Eye contact rapidly causes severe damage. Permanent corneal damage almost inevitably results. Even dilute solutions may produce this result, although less rapidly. Contact with the eyes causes disintegration and sloughing of conjunctival and corneal epithelium, corneal opacification. Complications of severe eye burns are symblepharon with

Potassium

overgrowth of the cornea by a vascularized membrane, progressive or recurrent corneal ulceration and permanent corneal opacification.

Sensitization: No sensitizing effects known.

Target organs/systems: Not determined.

SECTION 12 – ECOLOGICAL INFORMATION

General notes: Reagents contain sodium azide as preservative. Accumulations of azide may react with copper or lead plumbing to form explosive compound on percussion. Flush drain with copious amounts of water to prevent build up. Be aware of possible radioactive material. Exercise caution when using and disposing of reagents.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14 – TRANSPORT INFORMATION

DOT Class - Not restricted for transportation.

IMDG Class - Marine pollutant: No, not restricted for transportation.

ICAO/IATA Class - Not restricted for transportation.

SECTION 15 – REGULATORY INFORMATION

SARA (Superfund Amendments and Reauthorization Act of 1986 – USA):

Section 302/304 (40CFR355.40): The product does not contain listed substances.

Section 313 (40CFR372.65): The product does not contain listed substances.

California Proposition 65 (USA)

Chemicals known to cause cancer: The product does not contain listed substances.

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.

Markings according to European guidelines: observe the general safety regulations when handling chemicals. The product does not require any hazard warnings according the respective European Community (EC) Directives.

SECTION 16 – OTHER INFORMATION

The information contained in this SDS is believed to be accurate and represents the best information currently available. Stanbio Laboratory makes no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should determine suitability of the information contained in SDS for their particular purpose.

In no way shall Stanbio Laboratory be liable for any claims, losses or damages resulting from using information contained in SDS.