

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

1. Identification of Substance:

- **GHS product identifier:** Human Total 25-OH Vitamin D IVD ELISA Kit
- **Other means of identification / Catalog number:** RDKAP1971
- **Components:** Stop Solution (Contains Hydrochloric acid), Incubation buffer (Contains ProClin 300 and Pentadecafluorooctanoic acid), Conjugate Buffer, Calibrators 0-5, Controls and Conjugate Buffer (Contains ProClin 300).
- **Application of the substance / the preparation:** For *In Vitro* Diagnostic use.
- **Manufacturer/Supplier:**
Bio-techne®/R&D Systems®
614 McKinley Place N.E.
Minneapolis, MN 55413
USA
- **For product related questions call:** 1-800-343-7475. In Europe call: +44(0)1235-529449.
- **Emergency information:** In case of a chemical emergency, spill, fire, or exposure, call R&D Systems at (612) 379-2956 or (800)-343-7475. In Europe call +44(0)1235-529449.

2. Hazard Identification:

- **Classification:** Regulation, (EC) No.1272/2008 [CLP/GHS].
Contains Hydrochloric Acid (less than 5%) – not a hazardous substance at this concentration.
- **GHS Classification:**
- **Pictogram:** None.
- **Signal word:** None.
- **Hazard statements:** None
- **Precautionary statements:** None.
- **Response:** None needed.
- **Special hazards:** None.

3. Information on Ingredients:

- **Contains:** Hydrochloric Acid, Formula: HCl.

Contains	CAS No.	EC-No.	Index-No.	Content
Water	7732-18-5	231-791-2	NA	>95%
Hydrochloric Acid	7647-01-0	231-595-7	017-002-01-X	<5%

4. First Aid Measures:

- **Description of first aid measures**
General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Inhalation of vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract and in severe cases, pulmonary edema, circulatory failure, and death. Long-term exposure to vapors may cause erosion of teeth. Long-term exposures seldom occur due to the corrosive properties of this acid.
Skin contact: Causes skin irritation. Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.
Eye contact: Causes serious eye irritation. Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

Ingestion: Harmful if swallowed. Irritating to mouth, throat, and stomach. Rinse mouth with water. Immediately consult a physician.

- **Indication of any Immediate Medical Attention and Special Treatment Needed**
If you feel unwell, seek medical advice (show label where possible).

5. Fire Fighting Measures:

- **Extinguishing media**
Suitable extinguishing agents: Use water spray or extinguishing measure that are appropriate to local circumstances and the surrounding environment.
- **Special hazards arising from the substance or mixture:** Hydrogen Chloride gas.
- **Advice for firefighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental Release Measures:

- **Personal precautions, protective equipment and emergency procedures:** Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.
- **Environmental Precautions:** Prevent further spillage or leakage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- **Methods and material for containment and cleaning up:** Absorb liquid components with inert liquid-binding material. Pick up mechanically. Keep in suitable, closed containers for disposal.

7. Handling and Storage:

- **Precautions for safe handling:** Avoid inhalation of vapor or mist. Avoid contact with eyes and skin.
- **Conditions for safe storage, including incompatibilities:** Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Containers, which are opened, must be carefully resealed and kept upright to prevent leakage. Do not store in metal containers.

8. Exposure Controls and Personal Protection:

- **Control Parameters:**
OSHA PEL / NIOSH REL / ACGIH TLV: 5 ppm (7 mg/m³ as a ceiling limit)
EU Commission Directive 2000/39/EC: 8 hours – 5 ppm (8 mg/m³) / Short term 10 ppm (15 mg/m³)
- **Appropriate engineering controls:** Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.
- **Individual protection measures:** Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
Eye/face protection: Wear approved safety goggles.
Skin/hand protection: Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body protection: Wear suitable protective clothing as protection against splashing or contamination.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.
Respiratory protection: In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-faced supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9. Physical and Chemical Properties:

biotechne®

Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

Appearance: Colorless Liquid	Upper/lower flammability or explosive limits: Not available
Odor: Pungent	Vapor density: Not available
Odor threshold: Not available	Vapor pressure: Not available
pH: 1-2	Relative density: Not available
Melting point/freezing point: Not available	Solubility in/miscibility with water: Soluble
Boiling point/boiling range: Not available	Partition coefficient: N-Octanol/water: Not available
Flash point: Not available	Auto igniting: Not available
Evaporation rate: Not available	Decomposition temperature: Not available
Flammability (solid, gas): Not available	Viscosity: Not available

10. Stability and Reactivity:

- **Reactivity:** No data available.
- **Chemical stability:** Stable under recommended handling and storage conditions.
- **Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.
- **Conditions to avoid:** Hydroxides, amines, alkalis, and metals.
- **Incompatible materials:** Hydroxides, amines, alkalis or metals such as copper, brass, zinc, potassium, and sodium should be avoided.
- **Hazardous decomposition products:** Products formed under fire conditions: toxic gasses and vapors such as chlorine.

11. Toxicological Information:

- **Acute toxicity:** Irritating and corrosive to eyes, skin, and mucous membranes. Can cause severe burns upon contact while the vapors or mist are corrosive and can cause severe irritation or damage to the nose, throat, and lungs. Ingestion of this product causes severe burns to the mouth, esophagus, and stomach with consequent pain, nausea, and vomiting.
- **LD50 and LC 50 data:** Not available.
- **Skin corrosion/irritation:** Can cause burns of the skin and mucous membranes.
- **Serious eye damage/irritation:** Can cause burns, reduced vision or blindness.
- **Respiratory or skin sensitization:** Not available.
- **Germ cell mutagenicity:** Not available.
- **Carcinogenicity:** IARC: 3 – Group 3: Not classifiable as to its carcinogenicity to humans.
- **Reproductive toxicity:** Not available.
- **Specific Target Organ Toxicity (STOT) -Single Exposure:** 3
- **Specific Target Organ Toxicity (STOT) -Repeated Exposure:** Not available.
- **Aspiration hazard:** Can cause severe burns. Causes respiratory tract irritation.
- **Information on likely routes of exposure:** Routes of entry anticipated; oral, dermal, inhalation.
- **Potential health effects**
Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes.
Ingestion: May be harmful if swallowed. Causes burns.
Skin: May cause skin irritation. Causes burns.
Eyes: Causes eye burns.
- **Numerical measures of toxicity:** No data available.
- **Delayed and immediate effects and also chronic effects from short and long term exposure:**
Short term exposure: Exposure to vapor or aerosol produces inflammation and may cause ulceration of the nose, throat, and larynx; laryngeal spasm or eye and skin burns occur at high concentrations. Burns of the skin and mucous membranes result from contact with the solution. Burns may progress to ulcerations and to keloid and retractile scarring. Pulmonary edema may occur on rare occasions.
Long term exposure: Chronic exposure by skin contact with aqueous solutions may result in dermatitis and photosensitization. Dental discoloration and erosion.

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

- **Other information:** Not available.

12. Ecological Information:

- **Ecotoxicity:** High concentrations may be toxic to aquatic life.
- **Persistence and degradability:** When released into the soil, this material is not expected to degrade without pretreatment and may leach into groundwater.
- **Bioaccumulative potential:** No data available.
- **Mobility in soil:** Liquid may leach into groundwater.
- **Other adverse effects:** No data available.

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Contaminated packaging:** Dispose in the same manner as unused product.
- **Special precautions:** Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains, and sewers.

14. Transportation Information:

- **In accordance with DOT:** Not regulated for transport.
- **In accordance with IMDG:** Not regulated for transport.
- **In accordance with IATA:** Not regulated for transport.
- **In accordance with TDG:** Not regulated for transport.
- **Further information:** Not dangerous according to the above specifications.

15. Regulations:

- **US Federal and State Regulations**
CERCLA Reportable Quantity: 5,000 lbs.
SARA 311/312 Hazards: Acute health hazard.
SARA 313: Not listed.
TSCA (Toxic Substances Control Act): On TSCA Inventory.
California Proposition 65: Not listed.
- **European Union**
This safety datasheet complies with the requirements of Regulation (EC) No. 2015/830

16. Other Information:

- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

2. Hazard Identification:

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

- **Classification:** Regulation, (EC) No.1272/2008 [CLP/GHS].
Contains ProClin 300
- **GHS Classification:**
- **Pictogram:**



- **Signal word:** WARNING
- **Hazard statements:**
H317 – May cause an allergic skin reaction.
- **Precautionary statements:**
P261 – Avoid breathing mist.
P272 – Contaminated work clothing should not be allowed out of the workplace.
P280 – Wear protective gloves.
- **Response:**
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: get medical attention. Was all contaminated clothing before reuse.
- **Special hazards:** None.

3. Information on Ingredients:

- **Contains:** ProClin 300

Contains	CAS No.	EC-No.	Index-No.	Content
Modified Alkyl Carboxylate	-	-	-	<0.01%
Mixture of 5-Chloro-2-Methyl-4-Isothiazolin-3-One (26172-55-4) and 2-Methyl-4-Isothiazolin-3-One (2682-20-4)	55965-84-9	-	613-167-00-5	<0.01%
Modified Glycol	-	-	-	≤1.6%

4. First Aid Measures:

- **Description of first aid measures**
General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin contact: Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.
Eye contact: Rinse thoroughly with water for at least 15 minutes and immediately consult with a physician.
Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
- **Indication of any Immediate Medical Attention and Special Treatment Needed**
If you feel unwell, seek medical advice (show label where possible).

5. Fire Fighting Measures:

- **Extinguishing media**

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

Suitable extinguishing agents: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- **Advice for firefighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental Release Measures:

- **Personal precautions, protective equipment and emergency procedures:** Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.
- **Environmental Precautions:** Prevent further spillage or leakage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- **Methods and material for containment and cleaning up:** Absorb liquid components with inert liquid-binding material. Pick up mechanically. Keep in suitable, closed containers for disposal.

7. Handling and Storage:

- **Precautions for safe handling:** Avoid inhalation of vapor or mist. Avoid contact with eyes and skin.
- **Conditions for safe storage, including incompatibilities:** Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Containers, which are opened, must be carefully resealed and kept upright to prevent leakage.

8. Exposure Controls and Personal Protection:

- **Control Parameters:** Contains no substances with occupational exposure limit values.
- **Appropriate engineering controls:** Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.
- **Individual protection measures:** Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
Eye/face protection: Wear approved safety goggles.
Skin/hand protection: Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body protection: Wear suitable protective clothing as protection against splashing or contamination.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.
Respiratory protection: In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-faced supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9. Physical and Chemical Properties:

Appearance: Colorless Liquid	Upper/lower flammability or explosive limits: Not available
Odor: Not available	Vapor density: Not available
Odor threshold: Not available	Vapor pressure: Not available
pH: Not available	Relative density: 1.03 g/cm ³
Melting point/freezing point: -40° C	Solubility in/miscibility with water: Soluble
Boiling point/boiling range: 189° C	Partition coefficient: N-Octanol/water: Not available
Flash point: 118° C – closed cup	Auto igniting: Not available
Evaporation rate: Not available	Decomposition temperature: Not available
Flammability (solid, gas): Not available	Viscosity: Not available

10. Stability and Reactivity:

biotechne®

Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
 USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
 Europe | Middle East | Africa TEL +44 (0)1235 529449

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

- **Reactivity:** No data available.
- **Chemical stability:** Stable under recommended handling and storage conditions.
- **Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.
- **Conditions to avoid:** Strong oxidizing agents, reducing agents, Amines, Mercaptans.
- **Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions – Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas.

11. Toxicological Information:

- **Acute toxicity:** Not available.
- **LD50 and LC 50 data:**
 - LD50 Oral Rat – 862 mg/kg
 - LD50 Dermal Rabbit – 2800 mg/kg
- **Skin corrosion/irritation:** Can cause burns of the skin.
- **Serious eye damage/irritation:** Corrosive to eyes
- **Respiratory or skin sensitization:** May cause allergic skin reaction.
- **Germ cell mutagenicity:** Not available.
- **Carcinogenicity:** Not available.
- **Reproductive toxicity:** Not available.
- **Specific Target Organ Toxicity (STOT) -Single Exposure:** Not available.
- **Specific Target Organ Toxicity (STOT) -Repeated Exposure:** Not available.
- **Aspiration hazard:** Can cause severe burns.
- **Information on likely routes of exposure:** Routes of entry anticipated; oral, dermal, inhalation.
- **Potential health effects**
 - Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes.
 - Ingestion: May be harmful if swallowed. Causes burns.
 - Skin: May cause skin irritation. Causes burns.
 - Eyes: Causes eye burns.
- **Numerical measures of toxicity:** No data available.
- **Delayed and immediate effects and also chronic effects from short and long term exposure:**
 - Effects of chronic exposure:** ProClin 300 at levels greater than or equal to 0.1% is not identified as probable, possible, or a confirmed human carcinogen by IARC.
 - Other information:** Not available.

12. Ecological Information:

- **Ecotoxicity:** No data available.
- **Persistence and degradability:** No data available.
- **Bioaccumulative potential:** No data available.
- **Mobility in soil:** No data available.
- **Other adverse effects:** Toxic to aquatic organisms.

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Contaminated packaging:** Dispose in the same manner as unused product.
- **Special precautions:** Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains, and sewers.

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

14. Transportation Information:

- **In accordance with DOT:** Not regulated for transport.
- **In accordance with IMDG:** Not regulated for transport.
- **In accordance with IATA:** Not regulated for transport.
- **In accordance with TDG:** Not regulated for transport.
- **Further information:** Not dangerous according to the above specifications.

15. Regulations:

- **US Federal and State Regulations**
CERCLA Reportable Quantity: Not listed.
SARA 311/312 Hazards: Acute health hazard.
SARA 313: Not listed.
TSCA (Toxic Substances Control Act): On TSCA Inventory.
California Proposition 65: Not listed.
- **European Union**
This safety datasheet complies with the requirements of Regulation (EC) No. 2015/830

16. Other Information:

- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

2. Hazard Identification:

- **Classification:** Regulation, (EC) No.1272/2008 [CLP/GHS].
Contains Pentadecafluorooctanoic acid
- **GHS Classification:**
Acute toxicity, Oral 4
Skin corrosion, 1B
Serious eye damage, 1
Acute aquatic toxicity, 3
Chronic aquatic toxicity, 3

- **Pictogram:**



- **Signal word:** WARNING
- **Hazard statements:**
H302 – Harmful if swallowed.
H314 – Causes severe skin burns and eye damage.
H412 – Harmful to aquatic life with long lasting effects.
- **Precautionary statements:**
P260 – Do not breathe dust or mist.

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

- P264 – Wash hands thoroughly after handling.
- P270 – Do not eat, drink, or smoke when using this product.
- P273 – Avoid release to the environment.
- P280 – Wear Protective gloves/protective clothing/eye protection/face protection.

▪ **Response:**

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: get medical attention. Was all contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth DO NOT induce vomiting. Call a Poison Center or physician if you feel unwell.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Flush with water as a precaution

▪ **Special hazards:** None.

3. Information on Ingredients:

- **Contains:** Pentadecafluorooctanoic Acid **Synonyms:** Perfluorocaprylic Acid/Perfluorooctanoic Acid **Formula:** C₂HF₁₅O₂

Contains	CAS No.	EC-No.	Index-No.	Content
Pentadecafluorooctanoic acid	335-67-1	206-397-9	-	<3%

4. First Aid Measures:

▪ **Description of first aid measures**

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact: Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.

Eye contact: Flush eyes with water as a precaution immediately consult with a physician.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

▪ **Indication of any Immediate Medical Attention and Special Treatment Needed**

If you feel unwell, seek medical advice (show label where possible).

5. Fire Fighting Measures:

▪ **Extinguishing media**

Suitable extinguishing agents: Dry chemical, carbon dioxide, water spray, or alcohol-resistant foam.

▪ **Special hazards arising from the substance or mixture:** Hazardous decomposition products formed under fire conditions. Carbon oxides and Sodium oxides.

▪ **Advice for firefighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental Release Measures:

▪ **Personal precautions, protective equipment and emergency procedures:** Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

▪ **Environmental Precautions:** Prevent further spillage or leakage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

▪ **Methods and material for containment and cleaning up:** Absorb liquid components with inert liquid-binding material. Pick up mechanically. Keep in suitable, closed containers for disposal.

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

7. Handling and Storage:

- **Precautions for safe handling:** Avoid inhalation of vapor or mist. Avoid contact with eyes and skin.
- **Conditions for safe storage, including incompatibilities:** Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Containers, which are opened, must be carefully resealed and kept upright to prevent leakage.

8. Exposure Controls and Personal Protection:

- **Control Parameters:** Contains no substances with occupational exposure limit values.
- **Appropriate engineering controls:** Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.
- **Individual protection measures:** Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
Eye/face protection: Wear approved safety goggles.
Skin/hand protection: Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body protection: Wear suitable protective clothing as protection against splashing or contamination.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.
Respiratory protection: In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-faced supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9. Physical and Chemical Properties:

Appearance: Solid	Upper/lower flammability or explosive limits: Not available
Odor: Odorless	Vapor density: Not available
Odor threshold: Not available	Vapor pressure: 0.69 hPa (0.52 mmHg) at 25 °C (77 °F)
pH: 2.6 at 1 g/l	Relative density: Not available
Melting point/freezing point: 55-56 C (131-133 °F)	Solubility in/miscibility with water: Soluble
Boiling point/boiling range: 189 °C (372 °F) at 981hPa (736 mmHg)	Partition coefficient: N-Octanol/water: Not available
Flash point: Not available	Auto igniting: Not available
Evaporation rate: Not available	Decomposition temperature: Not available
Flammability (solid, gas): Not available	Viscosity: Not available

10. Stability and Reactivity:

- **Reactivity:** No known reactions under normal conditions of use.
- **Chemical stability:** Stable under recommended handling and storage conditions.
- **Possibility of hazardous reactions:** no data available.
- **Conditions to avoid:** Direct sources of heat.
- **Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions – Carbon oxides and Sodium oxides.

11. Toxicological Information:

biotechne®

Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
 USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
 Europe | Middle East | Africa TEL +44 (0)1235 529449

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

- **Acute toxicity:** Not available.
- **LD50 and LC 50 data:**
LD50 Intraperitoneal Rat – 189 mg/kg
- **Skin corrosion/irritation:** Not available.
- **Serious eye damage/irritation:** Not available.
- **Respiratory or skin sensitization:** Not available.
- **Germ cell mutagenicity:** Not available.
- **Carcinogenicity:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP or OSHA.
- **Reproductive toxicity:** Not available.
- **Specific Target Organ Toxicity (STOT) -Single Exposure:** Not available.
- **Specific Target Organ Toxicity (STOT) -Repeated Exposure:** Not available.
- **Aspiration hazard:** Can cause severe burns.
- **Information on likely routes of exposure:** Routes of entry anticipated; oral, dermal, inhalation.
- **Potential health effects**
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion: May be harmful if swallowed.
Skin: May cause skin irritation..
Eyes: Causes eye irritation.
- **Numerical measures of toxicity:** No data available.
- **Delayed and immediate effects and also chronic effects from short and long term exposure:**
To the best of our knowledge, the chemical, physical, and toxicological properties and affects have not been thoroughly investigated.

12. Ecological Information:

- **Ecotoxicity:** No data available.
- **Persistence and degradability:** No data available.
- **Bioaccumulative potential:** No data available.
- **Mobility in soil:** No data available.
- **Other adverse effects:** No data available.

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Contaminated packaging:** Dispose in the same manner as unused product.
- **Special precautions:** Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains, and sewers.

14. Transportation Information:

- **In accordance with DOT:**
Proper Shipping Name: Corrosive solid, acidic, organic, N.O.S.
Hazard Class: 8
Packing Group: III
- **In accordance with IMDG:**
UN Number: UN 3261
Proper Shipping Name: Corrosive solid, acidic, organic, N.O.S.
Hazard Class: 8
Packing Group: III

Product Name: Human Total 25-OH Vitamin D IVD ELISA Kit

Reviewed on: 24 June 2019

Marine Pollutant: No

▪ **In accordance with IATA:**

Proper Shipping Name: Corrosive solid, acidic, organic, N.O.S.

Hazard Class: 8

Packing Group: III

15. Regulations:

▪ **US Federal and State Regulations**

OSHA Hazards: Harmful by ingestion. Irritant.

CERCLA/SARA 302: No chemicals in this material are subject to reporting.

SARA 311/312 Hazards: No chemicals in this material are subject to reporting.

SARA 313: No chemicals in this material are subject to reporting.

TSCA (Toxic Substances Control Act): No chemicals in this material are subject to reporting.

California Proposition 65: WARNING: This product can expose you to chemicals including perfluorooctanoic acid (PFOA) which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

▪ **European Union**

This safety datasheet complies with the requirements of Regulation (EC) No. 2015/830

16. Other Information:

- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.