

Product Name: TGF-beta 1 Luminex Performance Assay

Reviewed on: 1 October 2014

1. Identification of Substance:

- **Other means of identification: Catalog Number: LTG100**
Components: Microparticle Concentrate (contains Sodium azide), Biotin-Antibody Concentrate (contains ProClin 300).
- **GHS product identifier:** TGF-beta 1 Luminex Performance Assay
- **Application of the substance / the preparation:** For Research Use Only
- **Manufacturer/Supplier:**
bio-techne/R&D Systems
614 McKinley Place N.E.
Minneapolis, MN 55413
USA
1-800-343-7475
- **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. Hazards Identification:

- **Classification: Sodium Azide <0.1%.** Not hazardous at this concentration. The classification was made according to the latest edition of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
- **Special Hazards:** N/A
- **Routes of exposure:** Inhalation; ingestion or skin.
IF EXPOSED OR CONCERNED: Get medical advice/attention.

3. Information on Ingredients:

Contains	EINECS	CAS No.	Content %	Classification
Sodium Azide	247-852-1	26628-22-8	<0.1%	Not hazardous at this concentration

4. First Aid Measures:

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly. Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Rinse mouth with water. Seek medical attention and appropriate follow-up.

5. Fire Fighting Measures:

- **Suitable extinguishing agents:** The product is non-flammable.
- **Protective equipment:** No special measures required.

6. Accidental Release Measures:

- **Person-related safety precautions:** Use standard laboratory practices including proper personal protective equipment.
- **Measures for environmental protection:** N/A.
- **Measures for containment and cleaning:**
 - Absorb liquid components with liquid-binding material.
 - Pick up mechanically.

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-Dispose contaminated material as waste according to item 13.

- **Additional information:** No dangerous substances are released.

7. Handling and Storage:

- **Precautions for safe handling:** No special measures required. No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage:** Store according to product specifications.

8. Exposure Controls and Personal Protection:

- **Control parameters:** None known.
- **Appropriate engineering controls:** Follow usual standard laboratory practices. The following personal protection is recommended:
 - Gloves made of latex, nitrile rubber, e.g.
 - Safety glasses
 - Protective work clothing.

9. Physical and Chemical Properties:

- **Appearance:** Lyophilized white powder or clear liquid. available.
 - **Odor:** Little to none
 - **Odor threshold:** Not available
 - **pH:** Not available
 - **Melting point/freezing point:** Not available.
 - **Boiling point/Boiling range:** Not available.
 - **Flash point:** Not available.
 - **Evaporation rate:** Undetermined.
 - **Flammability:** Not available.
- Upper/lower flammability or explosive limits:** Not available.
- Vapor pressure/density:** Not available.
- Relative Density:** Not available.
- Solubility in/Miscibility with Water:** Not available.
- Partition coefficient: noctanol/water:** Not available
- Auto igniting:** Product is not self igniting.
- Decomposition temperature:** Not available.
- Viscosity:** Not available.

10. Stability and Reactivity:

- **Reactivity:** This product contains low concentrations of Sodium Azide <0.1% (w/w). Sodium Azide can form explosive compounds with heavy metals which, with repeated contact with lead and copper commonly found in plumbing drains may result in the buildup of shock sensitive compounds.
- **Chemical Stability:** Stable under normal ambient and storage and handling temperatures.
- **Thermal decomposition/conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials to be avoided:** Metals and metallic compounds.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11. Toxicological Information:

- **Acute toxicity:** No toxic effect known.
- **Skin irritant effect:** No irritant effect known.
- **Eye irritant effect:** No irritant effect known.
- **Sensitization:** No sensitizing effects known.
- **Mutagenicity:** No effect known.
- **Carcinogenicity:** No effect known.
- **Reproductive toxicity:** No toxic effect known.
- **Additional toxicological information:** When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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12. Ecological Information:

- **Ecotoxicity:** Undetermined.
- **Biodegradability:** Undetermined.
- **Mobility:** Undetermined.

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. Transport Information:

- **UN Number:** None
- **DOT regulations:** ·Hazard class: None
- **Land transport ADR/RID (cross-border):** Not regulated.
- **Maritime transport IMDG:** Not regulated.
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:** Not regulated.
- **Transport/Additional information:** Not dangerous according to the above specifications.

15. Regulations:

- **US Federal and State Regulations**
 - TSCA (Toxic Substances Control Act):** Sodium Azide is listed.
 - SARA 313:** Sodium Azide is listed.
 - SARA 311/312 Hazards:** Acute Health Hazard
 - CERCLA Reportable Quantity:** 1000 lbs.
 - California Proposition 65:** Sodium Azide is not listed on California's listing of known or potential carcinogens.

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]**
 - Some components indicated above contain ProClin 300:** Skin Sens. 1; H317 – May cause an allergic skin reaction.
- **Signal Word:** WARNING
- **Precautionary statements:**
 - P261: Avoid breathing mist.
 - P272: Contaminated work clothing should not be allowed out of the workplace.
 - P280: Wear protective gloves.
- **Response:**



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

- **Classification according to Directive 67/548/EEC:** The product is classified as a skin sensitizer according to Directive 1999/45/EC and its amendments.
- **Hazard Symbol / R-Phrase / S-Phrase:** R43: May cause sensitization by skin contact.
- **Other hazards:** none

3. Information on Ingredients:

Description: 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:

- **IF IN EYES:** Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.
- **IF ON SKIN (or hair):** Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.
- **IF INHALED:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- **IF SWALLOWED:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician.

5. Fire Fighting Measures:

- **Suitable extinguishing agents:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **Special precautions for fire-fighters:** Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental Release Measures:

- **Person-related safety precautions:** Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
- **Measures for environmental protection:** Keep away from drains.
- **Measures for containment and cleaning:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. Handling and Storage:

- **Precautions for safe handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use normal measures for preventive fire protection.

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- **Conditions for safe storage:** Store in a cool, dry 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.
- **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.
 - Other skin protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.
 - Respiratory protection:** In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. Physical and Chemical Properties:

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| <ul style="list-style-type: none"> ▪ Appearance: Clear Liquid available ▪ Odor: Not available ▪ Odor threshold: Not available ▪ pH: Not available ▪ Melting point/freezing point: -40° C ▪ Boiling point/Boiling range: 189° C ▪ Flash point: 118° C – closed cup ▪ Evaporation rate: Not available ▪ Flammability (solid, gas): Not available | <ul style="list-style-type: none"> ▪ Upper/lower flammability or explosive limits: Not available ▪ Vapor density : Not available ▪ Vapor pressure: Not available ▪ Relative density: 1.03 g/cm³ ▪ Solubility in/Miscibility with Water: Soluble ▪ Partition coefficient: noctanol/water: Not available ▪ Auto igniting: Not available ▪ Decomposition temperature: Not available ▪ Viscosity: Not available |
|--|--|

10. Stability and Reactivity:

- **Chemical Stability:** Stable under recommended storage conditions.
- **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:** LD50 Oral – rat – 862 mg/kg
LD50 Dermal – rabbit- 2800 mg/kg
- **Skin corrosion/irritation:** Can cause severe burns. Skin – rabbit – Corrosive
- **Serious eye damage/irritation:** Rabbit – Corrosive to eyes
- **Respiratory or skin sensitization:** May cause allergic skin reaction.
- **Germ cell mutagenicity:** No data available
- **Carcinogenicity:** No data available
- **Reproductive toxicity:** No data available
- **Specific target organ toxicity (STOT) -single exposure:** No data available
- **Specific target organ toxicity (STOT) -repeated exposure:** No data available
- **Aspiration hazard:** Can cause severe burns.

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- **Information on likely routes of exposure:** Routes of entry anticipated; oral, dermal, inhalation.
- **Symptoms related to the physical, chemical and toxicological characteristics:**
 - Inhalation:** Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
 - Ingestion:** Harmful if swallowed. Causes burns.
 - Skin contact:** Harmful if absorbed through skin. Causes burns.
 - Eye contact:** Causes eye burns.
- **Delayed and immediate effects and also chronic effects from short and long term exposure:**
 - Short term exposure: Potential immediate effects:** Not available. **Potential delayed effects:** Not available.
 - Long term exposure: Potential immediate effects:** Not available. **Potential delayed effects:** Allergic contact dermatitis.
- **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.
- **Numerical measures of toxicity:** Not available
- **Other Information:** NA

12. Ecological Information:

- **Ecotoxicity:** No data available
- **Biodegradability:** 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 spilled material to soil, waterways, drains and sewers.

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- **Maritime transport IMDG:** Not regulated.
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:** Not regulated.
- **Transport/Additional information:** Not dangerous according to the above specifications.

15. Regulations:

- **US Federal and State Regulations**
 - TSCA (Toxic Substances Control Act):** On TSCA Inventory
 - SARA 313 Components:** Not listed
 - SARA 311/312 Hazards:** Acute Health Hazard
 - CERCLA Reportable Quantity:** Not listed
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