

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product Identifiers

Product Name: GFR alpha-1/GDNF R alpha-1 Overexpression Lysate

Catalog Number: NBP2-10479

Components: Overexpression Lysate  
Empty Vector Negative Control  
2x SDS Sample Buffer (contains SDS)

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Uses: For research use only.

#### 1.3 Details of the supplier of the safety data sheet

Company:	Novus Biologicals a Bio-Techne Brand 10771 E Easter Ave Centennial, CO 80112 USA	Telephone: Fax: Internet: Email address:	1-888-506-6887 1-303-730-1966 <a href="http://www.novusbio.com">www.novusbio.com</a> <a href="mailto:novus@novusbio.com">novus@novusbio.com</a>
Canada:	461 North Service Rd West Unit B37 Oakville, ON L6M 2V5	Telephone: Fax: Email address:	1-855-668-8722 902-827-6402 <a href="mailto:Canada.inquiries@bio-technne.com">Canada.inquiries@bio-technne.com</a>
United Kingdom:	19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB	Telephone: Fax: Email address:	44 (0)1235 529449 44 (0)1235 533420 <a href="mailto:info.emea@bio-technne.com">info.emea@bio-technne.com</a>
China:	1193 Changning Road Unit 1901, Raffles Changning Office Shanghai, China	Telephone: Fax: Email address:	86-400-821-3475 76 (021)52371001 <a href="mailto:techsupport.cn@bio-technne.com">techsupport.cn@bio-technne.com</a>

#### 1.4 Emergency Telephone Number

Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night: Within U.S. 1-800-262-8200 Worldwide 1-703-741-5500  
Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]

Skin Corrosion/Irritation – Category 2

Serious Eye Damage/Eye Irritation – Category 2

#### 2.2 Label Elements

Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]

Pictogram(s):



Signal Word: Warning Hazard

Statement(s):

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

Precautionary Statement(s):

P264 Wash hands thoroughly after handling  
P280 Wear protective gloves, protective clothing/eye protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.  
P332+P313 If skin irritation occurs, get medical advice/attention.  
P337+P313 If eye irritation persists, get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.

#### 2.3 Other Hazards

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**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Sodium Dodecyl Sulfate

**3.2 Mixtures**

Component	CAS No.	EC No.	Index No.	Classification	Conc.
Sodium Dodecyl Sulfate	151-21-3	205-788-1			< 10%

**4. FIRST AID MEASURES****4.1 Description of first aid measures****General Advice**

Consult a doctor and show this safety data sheet.

**If Inhaled**

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

**In Case of Skin Contact**

Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

**In Case of Eye Contact**

Flush with copious amounts of water for at least 15 minutes. Remove contact lenses if easy to do so. Consult a doctor.

**If Swallowed**

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

**4.2 Most important symptoms and effects, both acute and delayed****Inhalation**

Material may be irritating to the mucous membranes and upper respiratory tract.

**Skin**

Causes skin irritation.

**Eyes**

Causes eye irritation.

**Ingestion**

May be harmful if ingested.

**4.3 Indication of immediate medical attention and special treatment needed**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

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**5. FIRE-FIGHTING MEASURES****5.1 Extinguishing Media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Special hazards arising from the substance or mixture**

Combustible. In case of fire, irritating or toxic fumes or gases may be formed.

**5.3 Precautions for fire-fighters**

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

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**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.

**6.4 Reference to other sections**

For required PPE see section 8. For disposal see section 13.

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**7. HANDLING AND STORAGE****7.1 Precautions for safe handling**

Avoid inhalation, contact with eyes, skin and clothing. Use in a well-ventilated area. Do not eat, drink, or smoke in laboratory areas.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in cool, well-ventilated area. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully released and kept upright to prevent leakage. Do not store in incompatible containers.

**7.3 Specific end uses**

Not applicable.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**8.2 Exposure controls****Appropriate Engineering Controls**

Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station. Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling product.

**Personal Protective Equipment****Eye / Face Protection**

Use appropriate safety glasses.

**Skin Protection**

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

**Body Protection**

Wear appropriate protective clothing.

**Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

<b>Appearance</b>	Liquid	<b>Vapor Pressure</b>	No data available.
<b>Odor</b>	Little to none	<b>Vapor Density</b>	No data available.
<b>Odor Threshold</b>	No data available.	<b>Relative Density</b>	No data available.
<b>pH</b>	No data available.	<b>Solubility</b>	Soluble
<b>Melting / Freezing Point</b>	No data available.	<b>Partition Coefficient</b>	No data available.
<b>Boiling Point / Range</b>	No data available.	<b>Autoignition Temperature</b>	No data available.
<b>Flash Point</b>	No data available.	<b>Decomposition Temperature</b>	No data available.
<b>Evaporation Rate</b>	No data available.	<b>Viscosity</b>	No data available.
<b>Flammability (Solid, Gas)</b>	No data available.	<b>Explosive Properties</b>	No data available.
<b>Upper / Lower Flammability or</b>			
<b>Explosive Limits</b>	No data available.	<b>Oxidizing Properties</b>	No data available.

**9.2 Other safety information**

No data available.

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**10. STABILITY AND REACTIVITY****10.1 Reactivity**

No data available.

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

**10.4 Conditions to avoid**

No data available.

**10.5 Incompatible materials**

Oxidizing agents.

**10.6 Hazardous decomposition products**

Carbon dioxide, Carbon monoxide, Sodium oxides, Sulfur oxides.

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**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute Toxicity**

LD50 Oral – rat – 1,288 mg/kg.

**Skin Corrosion / Irritation**

Causes redness.

**Serious Eye Damage / Irritation**

Redness and pain.

**Respiratory or Skin Sensitization**

Sore throat and cough.

**Germ Cell Mutagenicity**

Classified based on available data.

**Carcinogenicity**

Classified based on available data.

**Reproductive Toxicity**

Classified based on available data.

**Specific Target Organ Toxicity - Single Exposure**

Classified based on available data.

**Specific Target Organ Toxicity - Repeated Exposure**

Classified based on available data.

**Aspiration Hazard**

Classified based on available data.

**Symptoms / Routes of Exposure**

Inhalation: Causes cough and sore throat.

Ingestion: Causes abdominal pain, diarrhea, nausea, and vomiting.

Skin: Causes redness and irritation.

Eyes: Causes redness and pain.

Delayed / Immediate Effects:

**Additional Information**

Classified based on available data.

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**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

No data available.

**12.2 Persistence and degradability**

No data available.

**12.3 Bio accumulative potential**

No data available.

**12.4 Mobility in soil**

No data available.

**12.5 Results of PBT and vPvB assessment**

No data available.

**12.6 Other adverse effects**

No data available.

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**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Product**

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

**Contaminated Packaging**

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

**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.

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**14. TRANSPORT INFORMATION**

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.

**14.1 UN-Number**

Does not meet the criteria for classification as hazardous for transport.

**14.2 UN proper shipping name**

Does not meet the criteria for classification as hazardous for transport.

**14.3 Transport hazard class(es)**

Does not meet the criteria for classification as hazardous for transport.

**14.4 Packaging group**

Does not meet the criteria for classification as hazardous for transport.

**14.5 Environmental hazards**

Does not meet the criteria for classification as hazardous for transport.

**14.6 Special precautions for users**

Does not meet the criteria for classification as hazardous for transport.

**Additional Transport Information**

Does not meet the criteria for classification as hazardous for transport.

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**15. REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**TSCA (Toxic Substances Control Act):** Sodium Dodecyl Sulfate is listed.

**SARA 313:** Not applicable.

**SARA 311/312:** Not applicable.

**CERCLA Reportable Quantity:** Not applicable.

**California Proposition 65:** Not applicable.

**15.2 Chemical safety assessment**

A Chemical Safety Assessment has not been made for this product.

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**16. OTHER INFORMATION**

**Further Information**

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This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

End of safety data sheet.