

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

**1.1 Product Identifiers**

Product Name: Recombinant Mouse MuSK His-tag Protein, CF  
Catalog Number: 11519-MK

**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:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE Minneapolis, MN 55413, USA	Telephone:	1-800-343-7475
		Fax:	1-612-656-4400
		Internet:	<a href="http://www.rndsystems.com">www.rndsystems.com</a>
		Email address:	<a href="mailto:info@bio-techne.com">info@bio-techne.com</a>
Canada:	21 Canmotor Ave Toronto, ON M8Z 4E6	Telephone:	1-855-668-8722
		Fax:	902-827-6402
		Email address:	<a href="mailto:Canada.inquiries@bio-techne.com">Canada.inquiries@bio-techne.com</a>
United Kingdom:	19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB	Telephone:	44 (0)1235 529449
		Fax:	44 (0)1235 533420
		Email address:	<a href="mailto:info.emea@bio-techne.com">info.emea@bio-techne.com</a>
China:	1193 Changning Road Unit 1901, Raffles Changning Office Shanghai, China	Telephone:	86-400-821-3475
		Fax:	76 (021) 52371001
		Email address:	<a href="mailto:techsupport.cn@bio-techne.com">techsupport.cn@bio-techne.com</a>

**1.4 Emergency Telephone Number**

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**

This substance does not meet the classification criteria according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA].

**2.2 Label Elements**

This product does not need to be labeled in accordance with Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA].

**2.3 Other Hazards**

This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII.

The substance/mixture does not contain substance(s) equal to or greater than 0.1% by weight that are present in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

Not applicable.

**3.2 Mixtures**

This product does not contain hazardous chemicals at concentrations of 1% or greater. This product is not known to contain carcinogens at concentrations of 0.1% or greater.

**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.

**In Case of Skin Contact**

Wash skin with soap and water. If irritation occurs, consult a doctor.

**In Case of Eye Contact**

Flush with water for at least 15 minutes. Consult a doctor.

**If Swallowed**

Rinse mouth with water. Consult a doctor if you feel unwell.

**4.2 Most important symptoms and effects, both acute and delayed**  
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**4.3 Indication of immediate medical attention and special treatment needed**  
None.

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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**

In combustion, may emit toxic fumes.

**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**

Ensure adequate ventilation. Always wear protective equipment. See section 8 for more information.

**6.2 Environmental precautions**

No special environmental precautions required. Avoid discharge into drains and waterways whenever possible.

**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**

Use personal protective equipment as required. No special handling advices are necessary.

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

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.

**7.3 Specific end uses**

Not applicable.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**

**Components with workplace and control parameters**

Contains no substances with occupational exposure limit values.

**8.2 Exposure controls**

**Appropriate Engineering Controls**

Ensure adequate ventilation, especially in confined areas.

**8.3 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>Physical State</b>	Liquid	<b>Vapor Pressure</b>	No data available.
<b>Appearance</b>	Clear liquid	<b>Vapor Density</b>	No data available.
<b>Odor</b>	Little to none.	<b>Relative Density</b>	No data available.
<b>Odor Threshold</b>	No data available.	<b>Solubility</b>	No data available.
<b>pH</b>	7.4	<b>Partition Coefficient</b>	No data available.
<b>Melting / Freezing Point</b>	No data available.	<b>Auto ignition Temperature</b>	No data available.
<b>Boiling Point / Range</b>	No data available.	<b>Decomposition Temperature</b>	No data available.

<b>Flash Point</b>	No data available.	<b>Viscosity</b>	No data available.
<b>Evaporation Rate</b>	No data available.	<b>Explosive Properties</b>	No data available.
<b>Flammability (Solid, Gas)</b>	No data available.	<b>Oxidizing Properties</b>	No data available.
<b>Upper / Lower Flammability or Explosive Limits</b>	No data available.		

**9.2 Other safety information**  
No data available.

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**10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

Stable under recommended transport or storage conditions.

**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**

Heat, moisture.

**10.5 Incompatible materials**

Strong acids/alkalis, strong oxidizing/reducing agents.

**10.6 Hazardous decomposition products**

Strong acids/alkalis, strong oxidizing/reducing agents.

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**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Acute Toxicity**

Classified based on available data.

**Skin Corrosion/Irritation**

Classified based on available data.

**Serious Eye Damage / Irritation**

Classified based on available data.

**Respiratory or Skin Sensitization**

Classified based on available data.

**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:	Prolonged exposure may cause irritation.
Ingestion:	Ingestion may cause adverse effects.
Skin:	Prolonged exposure may cause skin irritation.
Eyes:	May cause slight irritation to eyes.
Delayed/Immediate Effects:	No known symptoms.

**Additional Information**

Classified based on available data

**11.2 Information On Other Hazards**

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to humans as it does not meet the criteria set out in section A of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

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**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

Contains no substances known to be hazardous to the environment or not degradable in waste water.

**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**

Does not contain any PBT/vPvB substances  $\geq$  0.1% assessed in accordance with REACH Annex XIII.

**12.6 Endocrine disrupting properties**

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

**12.7 Other adverse effects**

**Other Information:** Avoid release to the environment.

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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.

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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.

**14.7 Additional Transport Information**

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

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**15. REGULATORY INFORMATION**

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 and 29 CFR 1910.1200 [OSHA]

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

**TSCA (Toxic Substances Control Act):** Not applicable.

**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.