SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME
ADRENOCORTICOTROPHIC HORMONE (ACTH)

PRODUCT CODE
1904

SUPPLIER

MEDISCA Inc.
Tel.: 1.800.932.1039 | Fax.: 1.855.850.5855
661 Route 3, Unit C, Plattsburgh, NY, 12901
3955 W. Mesa Vista Ave., Unit A-10, Las Vegas, NV, 89118
6641 N. Belt Line Road, Suite 130, Irving, TX, 75063

MEDISCA Pharmaceutique Inc.
Tel.: 1.800.665.6334 | Fax.: 514.338.1693
4509 Rue Dobrin, St. Laurent, QC, H4R 2L8
21300 Gordon Way, Unit 153/158, Richmond, BC V6W 1M2

MEDISCA Australia PTY LTD
Tel.: 1.300.786.392 | Fax.: 61.2.9700.9047
Unit 7, Heritage Business Park
5-9 Ricketty Street, Mascot, NSW 2020

EMERGENCY PHONE
CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300
NSW Poisons Information Centre: 131 126
National Chemical Emergency Centre 44(0)1235239670

USES
Therapeutic agent (epilepsy, multiple sclerosis)

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION
Sensitization - Respiratory (Category 1)
Sensitization - Skin (Category 1)
Carcinogenicity (Category 2)
Toxic to Reproduction (Category 2)

PICTOGRAM

SIGNAL WORD
Danger

HAZARD STATEMENT(S)
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
Not Applicable.

PRECAUTIONARY STATEMENT(S)
Prevention
Avoid breathing dust, fume, gas, mist, vapors, spray.
In case of inadequate ventilation wear respiratory protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves, protective clothing, eye protection, face protection.
Contaminated work clothing must not be allowed out of the workplace.
SAFETY DATA SHEET

Response
IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms call a poison center or medical professional.
IF EXPOSED OR CONCERNED: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.

Storage
Store locked up.

Disposal
Dispose of contents and/or container in accordance with local regulations.

HMIS CLASSIFICATION
<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME
Corticotrophin

BOTANICAL NAME
Not applicable

SYNONYM
Adrenocorticotropin

CHEMICAL FORMULA
Not applicable

CAS NUMBER
9002-60-2

ALTERNATE CAS NUMBER
9061-27-2

MOLECULAR WEIGHT
4567.6 (free peptide)

COMPOSITION
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as health hazards and hence require reporting in this section.

SYNTHETIC PORCINE CORTICOTROPIN HORMONE

NOTES

SECTION 4: FIRST-AID MEASURES

IN CASE OF EYE CONTACT
Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.

IN CASE OF SKIN CONTACT
Wash with soap & water for 15 minutes. If irritation persists seek medical aid.

IF SWALLOWED
Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.

IF INHALED
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician

SYMPTOMS AND EFFECTS
Not expected to present a significant hazard under anticipated conditions of normal use.

SECTION 5: FIREFIGHTING MEASURES

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL
Not applicable

FLAMMABLE PROPERTIES
Combustible at high temperatures.

HAZARDOUS COMBUSTION PRODUCTS
Under fire conditions, hazardous fumes will be present.

Last Revision: 01/2020
SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS
Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

METHODS & MATERIAL FOR CONTAINMENT
On land, sweep or shovel into suitable containers. Minimize generation of dust.

CLEANUP PROCEDURE
Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.

REFERENCE TO OTHER SECTIONS
See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING
Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling. Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.

CONDITIONS FOR SAFE STORAGE
Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.

STORAGE CONDITIONS
Store in original container, tightly sealed, protected from direct sunlight and moisture. Preserve in tight, light-resistant containers between -25°C to -10°C.

SPECIFIC END USE(S)
See Section 1

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

<table>
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<tr>
<th>Country</th>
<th>Limit value-8 hours</th>
<th>Limit value-Short Term</th>
<th>IDLH</th>
<th>REL</th>
<th>Advisory</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
<td>ppm</td>
<td>mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA USA</td>
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<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
</tr>
<tr>
<td>ACGIH USA</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
</tr>
<tr>
<td>NIOSH USA</td>
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<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
</tr>
<tr>
<td>WEEL USA</td>
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<td>N/L</td>
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<td>N/L</td>
<td>N/L</td>
</tr>
<tr>
<td>HSIS Australia</td>
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<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
</tr>
<tr>
<td>HSE UK</td>
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<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

GESTIS Add Country     N/L     N/L     N/L     N/L     N/L     N/L     N/A     N/A

N/L = Not listed ; N/A = Not Available
PELs are 8-hour TWAs = Limit value - Eight hours
Ceiling or Short-Term TWA = STEL = Limit value - Short term

EXPOSURE GUIDELINES
Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m³

PERSONAL PROTECTIVE EQUIPMENT
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to minimize contact with skin. Respirators: Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Thermal Hazards: For products representing a thermal hazard, appropriate Personal Protective Equipment should be used.

SPECIFIC ENGINEERING CONTROLS
Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
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<tbody>
<tr>
<td>PHYSICAL STATE</td>
<td>Solid</td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td>White to almost white powder. Is hygroscopic.</td>
</tr>
<tr>
<td>SOLUBILITY</td>
<td>Soluble in water (at a concentration of 10 g/L).</td>
</tr>
<tr>
<td>ODOR</td>
<td>Not available</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>Combustible at high temperatures.</td>
</tr>
<tr>
<td>AUTO-IGNITION TEMPERATURE</td>
<td>Not available</td>
</tr>
<tr>
<td>BOILING POINT</td>
<td>Not available</td>
</tr>
<tr>
<td>DECOMPOSITION TEMPERATURE</td>
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</tr>
<tr>
<td>EVAPORATION RATE</td>
<td>Not available</td>
</tr>
<tr>
<td>EXPLOSIVE LIMIT</td>
<td>Not available</td>
</tr>
<tr>
<td>FLASH POINT</td>
<td>Not available</td>
</tr>
<tr>
<td>log P (OCTANOL-WATER)</td>
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</tr>
<tr>
<td>LOWER FLAMMABLE/EXPLOSIVE LIMIT(S)</td>
<td>Not available</td>
</tr>
<tr>
<td>MELTING/FREEZING POINT</td>
<td>Not available</td>
</tr>
<tr>
<td>ODOR THRESHOLD</td>
<td>Not available</td>
</tr>
<tr>
<td>OXIDIZING PROPERTY</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>3 - 3.5 (1%)</td>
</tr>
<tr>
<td>RELATIVE DENSITY (WATER = 1)</td>
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</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
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<tr>
<td>UPPER FLAMMABLE/EXPLOSIVE LIMIT(S)</td>
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<td>VAPOR DENSITY (AIR = 1)</td>
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<tr>
<td>VAPOR PRESSURE</td>
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<tr>
<td>VISCOSITY</td>
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The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>PROPERTY</th>
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<tr>
<td>REACTIVITY</td>
<td>Not established</td>
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<tr>
<td>CHEMICAL STABILITY</td>
<td>Stable under recommended storage conditions</td>
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</table>

Last Revision: 01/2020
### SAFETY DATA SHEET

<table>
<thead>
<tr>
<th>INCOMPATIBLE MATERIALS</th>
<th>Strong oxidants</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAZARDOUS DECOMPOSITION PRODUCTS</td>
<td>Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and other gases may occur</td>
</tr>
<tr>
<td>HAZARDOUS POLYMERIZATION</td>
<td>Will not occur</td>
</tr>
<tr>
<td>POSSIBILITY OF HAZARDOUS REACTION</td>
<td>Not established</td>
</tr>
<tr>
<td>CONDITIONS TO AVOID</td>
<td>Moisture, sunlight and extreme temperatures</td>
</tr>
</tbody>
</table>

### SECTION 11: TOXICOLOGICAL INFORMATION

**ACUTE TOXICITY**
- Oral: Rat: LD50: (mg/kg): Not available
- Dermal: Rabbit: LD50: (mg/kg): Not available
- Inhalation: Rat: LC50: (mg/L/4hr): Not available

**SKIN CORROSION/IRRITATION**
- Due to lack of data the classification is not possible.

**SERIOUS EYE DAMAGE/EYE IRRITATION**
- Due to lack of data the classification is not possible.

**REPRODUCTIVE TOXICITY**
- Due to lack of data the classification is not possible.

**SKIN SENSITIZATION**
- Skin and respiratory sensitizer. Corticotropin can induce sensitisation, and severe hypersensitivity reactions, including anaphylaxis, may occur. This is generally considered to be due to the porcine component of the peptide.

**GERM CELL MUTAGENICITY**
- Due to lack of data the classification is not possible.

**CARCINOGENICITY**
- OSHA: ADRENOCORTICOTROPIC HORMONE is not listed.
- NTP: ADRENOCORTICOTROPIC HORMONE is not listed.
- IARC: ADRENOCORTICOTROPIC HORMONE is not evaluated.
- California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

**ADDITIONAL CARCINOGENICITY INFORMATION**
- Suspected of causing cancer. Substances like Corticotrophin showing glucocorticoid action have shown teratogenicity in animal testing, but data concerning human teratogenicity are inconsistent.

**REPRODUCTIVE TOXICITY**
- Several animal studies indicate that specific exposure to Corticotrophin during pregnancy might result in specific developmental abnormalities, but data cannot be generalized to humans.

**SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE**
- Due to lack of data the classification is not possible.

**SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE**
- Due to lack of data the classification is not possible.

**ASPIRATION HAZARDS**
- Not expected to present a significant hazard under anticipated conditions of normal use. Can produce marked sodium and water retention, considerable potassium loss; sensitisation, severe hypersensitivity reactions including anaphylaxis, and adrenal insufficiency. Adenocorticotropic hormone is a corticosteroid and has the potential to produce both adverse glucocorticoid and mineralcorticoid effects. Information on likely routes of exposure: Inhalation, skin and ingestion.

**SIGNS AND SYMPTOMS OF EXPOSURE**
- Inhalation: Harmful if inhaled. May cause respiratory tract irritation. Can induce severe hypersensitivity, including anaphylaxis.
- Ingestion: Harmful if swallowed.
- Skin: Harmful if absorbed through skin. May cause slight skin irritation. May cause an allergic skin reaction
- Eyes: May cause eye irritation.
SECTION 12: ECOLOGICAL INFORMATION

TOXICITY
- EC50: 48 Hr: Crustacea: (mg/L): Not available
- LC50: 96 Hr: Fish: (mg/L): Not available
- EC50: 72 or 96 Hr: Algae (or other aqua plants): (mg/L): Not available

PERSISTENCE AND DEGRADABILITY
- Not available

BIOACCUMULATIVE POTENTIAL
- Not available

MOBILITY IN SOIL
- Highly mobile. Very soluble in water: 10,000 mg/L.

OTHER ADVERSE EFFECTS
- Not available
- This product is not intended to be released into the environment

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL
- Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment.

SECTION 14: TRANSPORT INFORMATION

UN PROPER SHIPPING NAME
- Not dangerous good

UN NUMBER
- Not applicable

CLASS
- Not applicable

PACKING GROUP
- Not applicable

AUSTRALIA

HAZCHEM
- Not applicable

EU
- TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE
- Not Listed

ENVIRONMENTAL HAZARDS
- Not available

SPECIAL SHIPPING INFORMATION
- Not applicable

SECTION 15: REGULATORY INFORMATION

UNITED STATES REGULATIONS

<table>
<thead>
<tr>
<th>Chemical Name &amp; CAS</th>
<th>CERCLA 40 CFR Part 302.4</th>
<th>SARA (Title III) 40 CFR Part 372.85</th>
<th>EPA 40 CFR Part 355 Appendix A</th>
<th>Appendix B</th>
<th>Pennsylvania</th>
<th>Right-to-know</th>
<th>Massachusetts</th>
<th>California Prop 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADRENOCORTICOTROPHIC HORMONE 9002-60-2</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
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</table>

N/L = Not Listed; X = Listed

AUSTRALIAN REGULATIONS
SAFETY DATA SHEET

Poisons and Therapeutic Goods Regulation

Therapeutic Goods Act

Code of Practices - illicit Drug Precursors

<table>
<thead>
<tr>
<th>Chemical Name &amp; CAS</th>
<th>Poisons and Therapeutic Goods Regulation</th>
<th>Therapeutic Goods Act</th>
<th>Code of Practices - illicit Drug Precursors</th>
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</thead>
<tbody>
<tr>
<td>ADRENOCORTICOTROPHIC HORMONE 9002-60-2</td>
<td>N/L</td>
<td>Listed as Schedule 4</td>
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</tr>
</tbody>
</table>

N/L = Not Listed

EU REGULATIONS

<table>
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<th></th>
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<tbody>
<tr>
<td>ADRENOCORTICOTROPHIC HORMONE 9002-60-2</td>
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<td>N/L</td>
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<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
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</tbody>
</table>

N/L = Not Listed; X = Listed

Any EU regulation not listed above is not applicable to this product.

SECTION 16: OTHER INFORMATION

REFERENCES

Available upon request

ABBREVIATIONS AND ACRONYMS


LAST REVISION

01/2020

SUPERSEDES

08/2017

DISCLAIMER

This document was created in accordance with OSHA, Safe Work Australia and WHMIS regulations. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MEDISCA® shall not be held liable for any damage resulting from handling or from contact with the above product. Recipients of the product must take responsibility for observing existing laws and regulations.

SUPPLEMENTARY INFORMATION

For all country specific requirements not outlined on this Safety Data Sheet, please request Supplementary Page to this Safety Data Sheet.