

## Material Safety Data Sheet

Version 4.0

Revision Date 08/18/2010

Print Date 03/23/2011

---

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Adrenocorticotrophic hormone, human

Product Number : 02275

Brand : Fluka

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +18003255832

Fax : +18003255052

Emergency Phone # : (314) 776-6555

---

2. HAZARDS IDENTIFICATION

## Emergency Overview

## OSHA Hazards

Toxic by inhalation., Toxic by ingestion, Harmful by skin absorption., Carcinogen

## GHS Label elements, including precautionary statements

Pictogram



Signal word Warning

Hazard statement(s)

H302 + H312

Harmful if swallowed or in contact with skin.

H332

Harmful if inhaled.

H351

Suspected of causing cancer.

Precautionary statement(s)

P280

Wear protective gloves/ protective clothing.

## HMIS Classification

Health hazard: 2

Chronic Health Hazard: \*

Flammability: 0

Physical hazards: 0

## NFPA Rating

Health hazard: 2

Fire: 0

Reactivity Hazard: 0

## Potential Health Effects

Inhalation Toxic if inhaled. May cause respiratory tract irritation.

Skin May cause skin irritation.

Eyes May cause eye irritation.

Ingestion Toxic if swallowed.

---

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : ACTH  
Corticotropin

Formula : C<sub>207</sub>H<sub>308</sub>N<sub>56</sub>O<sub>58</sub>S  
Molecular Weight : 4,541.07 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
<b>Corticotropin</b>			
9002-60-2	232-659-7	-	-

---

#### 4. FIRST AID MEASURES

##### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

##### **If inhaled**

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

##### **In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

##### **In case of eye contact**

Flush eyes with water as a precaution.

##### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

---

#### 5. FIRE-FIGHTING MEASURES

##### **Suitable extinguishing media**

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

##### **Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

---

#### 6. ACCIDENTAL RELEASE MEASURES

##### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

##### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

---

#### 7. HANDLING AND STORAGE

##### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

##### **Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -20 °C

Light sensitive. Store under inert gas. Keep in a dry place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. 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).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. 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.

#### Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	powder
Colour	white

### Safety data

pH	no data available
Melting point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Water solubility	1 g/l

---

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Conditions to avoid

no data available

### Materials to avoid

Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides

---

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

Limited evidence of carcinogenicity in animal studies

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

Reproductive toxicity - rat - Intraperitoneal

Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Fertility: Litter size (e.g., # fetuses per litter; measured before birth).

Reproductive toxicity - rat - Subcutaneous

Paternal Effects: Prostate, seminal vesicle, Cowper's gland, accessory glands.

Reproductive toxicity - rat - Subcutaneous

Effects on Fertility: Abortion. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Newborn: Stillbirth.

Reproductive toxicity - rat - Subcutaneous

Effects on Newborn: Weaning or lactation index (e.g., # alive at weaning per # alive at day 4). Effects on Newborn: Behavioral.

Reproductive toxicity - mouse - Subcutaneous

Maternal Effects: Uterus, cervix, vagina. Effects on Fertility: Litter size (e.g., # fetuses per litter; measured before birth).

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Developmental Toxicity - rat - Subcutaneous

Specific Developmental Abnormalities: Endocrine system. Effects on Newborn: Biochemical and metabolic.

Developmental Toxicity - mouse - Intramuscular

Specific Developmental Abnormalities: Craniofacial (including nose and tongue).

Developmental Toxicity - rabbit - Parenteral

Effects on Embryo or Fetus: Fetal death.

Developmental Toxicity - Hamster - Parenteral

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities:

Craniofacial (including nose and tongue).

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

no data available

**Aspiration hazard**

no data available

**Potential health effects****Inhalation**

Toxic if inhaled. May cause respiratory tract irritation.

**Ingestion**

Toxic if swallowed.

**Skin**

May cause skin irritation.

**Eyes**

May cause eye irritation.

**Signs and Symptoms of Exposure**

Stimulates the adrenal cortex.

**Additional Information**

RTECS: GM7900000

---

**12. ECOLOGICAL INFORMATION****Toxicity**

no data available

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

no data available

---

**13. DISPOSAL CONSIDERATIONS****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

---

**14. TRANSPORT INFORMATION****DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

---

**15. REGULATORY INFORMATION****OSHA Hazards**

Toxic by inhalation., Toxic by ingestion, Harmful by skin absorption., Carcinogen

**DSL Status**

This product contains the following components that are not on the Canadian DSL nor NDSL lists.

Corticotropin

CAS-No.  
9002-60-2

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
Corticotropin	9002-60-2	

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
Corticotropin	9002-60-2	

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

---

**16. OTHER INFORMATION****Further information**

Copyright 2010 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.  
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. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

---