



## MATERIAL SAFETY DATA SHEET

### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name(s): Anti-AtherOx<sup>®</sup> IgG Test Kit  
Anti-AtherOx<sup>®</sup> IgM Test Kit  
Product Number(s): 11854, 11855

Corgenix, Inc.  
11575 Main Street, Suite 400  
Broomfield, CO 80020, USA

Emergency Telephone Number  
(800) 729-5661  
(303) 457-4345

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

	<u>Component</u>	<u>CAS Number</u>	<u>Percentage</u>
<b>Substrate</b>		<b>54827-17-7</b>	<b>NA</b>
	3,3',5,5'-Tetramethylbenzidine	54827-17-7	3.0
<b>Sample Diluent VIII</b>		<b>Not Established</b>	<b>NA</b>
	Bovine Serum Albumin	9048-46-8	2.0
	Water	7732-18-5	96.8
	ProClin 150/ 950	26172-55-4/ 2682-20-4	NA
	All other ingredients are non-hazardous at concentrations present	NA	NA
<b>33X PBS/Tween 20 Wash Concentrate</b>		<b>Not Established</b>	<b>NA</b>
	Potassium phosphate dibasic	7758-11-4	4.7
	Sodium chloride	7647-14-5	28.1
	Water	7732-18-5	66.1
	All other ingredients are non-hazardous at concentrations present	NA	NA
<b>Stopping Solution (0.36N Sulfuric acid)</b>		<b>Not Established</b>	<b>NA</b>
	Sulfuric acid	7664-93-9	1.0
	Water	7732-18-5	99.0
<b>Anti-AtherOx<sup>®</sup> IgG and IgM HRP Conjugated Antibody</b>		<b>Not Established</b>	<b>NA</b>
	Chemicals in this component are considered proprietary; please contact Corgenix for further information		
<b>Anti-AtherOx<sup>®</sup> Normal/Positive Controls</b>		<b>Not Established</b>	<b>NA</b>
	Human Serum*	Not Established	99.9
<b>Anti-AtherOx<sup>®</sup> Calibrators</b>		<b>Not Established</b>	<b>NA</b>
	Human Serum*	Not Established	99.9

\*The human serum or plasma used in these products has been tested and found negative for HIV 1 and 2 antibodies, Hepatitis C Virus (HCV), and Hepatitis B surface antigen.

**SECTION 3: HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW:**

**Substrate**

**Color:** Clear  
**Physical Form:** Liquid  
**Odor:** Not identified  
**Major Health Hazards:** Eye/ Skin Irritation  
**NFPA Rating (Scale 0-4):** Health=1; Fire=1; Reactivity=0



**Sample Diluent VIII**

**Color:** Green  
**Physical Form:** Liquid  
**Odor:** Not identified  
**Major Health Hazards:** Irritant; Allergic reaction/sensitizer (ProClin)  
**NFPA Rating (scale 0-4):** Health=1; Fire=1; Reactivity=0



**33X PBS/Tween 20 Wash Concentrate**

**Color:** Clear  
**Physical Form:** Liquid  
**Odor:** Not identified  
**Major Health Hazards:** Eye irritation  
**NFPA Rating (Scale 0-4):** Health=2; Fire=0; Reactivity=0



**Stopping Solution (0.36N Sulfuric acid)**

**Color:** Clear  
**Physical Form:** Liquid  
**Odor:** Not identified  
**Major Health Hazards:** Irritation  
**NFPA Rating (Scale 0-4):** Health=1; Fire=0; Reactivity=0



**Anti-AtherOx<sup>®</sup> IgG and IgM HRP Conjugate**

**Color:** Blue for IgG; Red for IgM  
**Physical Form:** Liquid  
**Odor:** Not identified  
**Major Health Hazards:** Irritant; Allergic reaction/sensitizer (ProClin)  
**NFPA Rating (Scale 0-4):** Not Available



**Anti-AtherOx<sup>®</sup> Normal/Positive Controls**

**Color:** Yellowish  
**Physical Form:** Liquid  
**Odor:** Not identified  
**Major Health Hazards:** Irritant  
**NFPA Rating (Scale 0-4):** Health=1; Fire=1; Reactivity=0



**Anti-AtherOx<sup>®</sup> Calibrators**

**Color:** Yellowish  
**Physical Form:** Liquid  
**Odor:** Not identified  
**Major Health Hazards:** Irritant  
**NFPA Rating (Scale 0-4):** Health=1; Fire=1; Reactivity=0





**POTENTIAL HEALTH EFFECTS:**

**Substrate (3,3',5,5'-Tetramethylbenzidine)**

**Inhalation:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Eye Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Carcinogen Status:**

**OSHA:** No

**NTP:** No

**IARC:** No

**Sample Diluent VIII (Bovine Serum Albumin)**

**Inhalation:**

**Short Term Exposure:** No information on significant adverse effects

**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Eye Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** No information on significant adverse effects

**Long Term Exposure:** No information available

**Carcinogen Status:**

**OSHA:** No

**NTP:** No

**IARC:** No

**Sample Diluent VIII (ProClin)**

**Inhalation:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available



**Skin Contact:**

**Short Term Exposure:** Allergic reaction

**Long Term Exposure:** Allergic reaction

**Eye Contact:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** May be harmful if swallowed

**Long Term Exposure:** No information available

**Carcinogen Status:**

**OSHA:** No

**NTP:** No

**IARC:** No

**33X PBS/Tween 20 Wash Concentrate (Sodium Chloride)**

**Inhalation:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** Irritation

**Eye Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** Irritation

**Ingestion:**

**Short Term Exposure:** Fever, nausea, vomiting, diarrhea, disorientation, lung congestion, effects on the brain, convulsions, and coma.

**Long Term Exposure:** No information on significant adverse effects

**Carcinogen Status:**

**OSHA:** No

**NTP:** No

**IARC:** No

**33X PBS/Tween 20 Wash Concentrate (Potassium Phosphate Dibasic)**

**Inhalation:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** Irritation

**Eye Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** nausea, vomiting, diarrhea, stomach pain, difficulty breathing, irregular heartbeat, paralysis.

**Long Term Exposure:** No information on significant adverse effects

**Carcinogen Status:**

**OSHA:** No

**NTP:** No

**IARC:** No

**Stopping Solution (0.36N Sulfuric Acid)**

**Inhalation:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Eye Contact:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Carcinogen Status:**

**OSHA:** No

**NTP:** No

**IARC:** No

**Anti-AtherOx<sup>®</sup> IgG and IgM HRP-Conjugated Antibody (Bovine Serum Albumin)**

**Inhalation:**

**Short Term Exposure:** No information on significant adverse effects

**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Eye Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** No information on significant adverse effects

**Long Term Exposure:** No information available



**Carcinogen Status:**

**OSHA:** No  
**NTP:** No  
**IARC:** No

**Anti-AtherOx<sup>®</sup> IgG and IgM HRP-Conjugated Antibody (ProClin)**

**Inhalation:**

**Short Term Exposure:** No information available  
**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** Allergic reaction  
**Long Term Exposure:** Allergic reaction

**Eye Contact:**

**Short Term Exposure:** No information available  
**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** May be harmful if swallowed  
**Long Term Exposure:** No information available

**Carcinogen Status:**

**OSHA:** No  
**NTP:** No  
**IARC:** No

**Anti-AtherOx<sup>®</sup> IgG and IgM HRP-Conjugated Antibody (Glycerol)**

**Inhalation:**

**Short Term Exposure:** Irritation, difficulty breathing  
**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** Irritation  
**Long Term Exposure:** Irritation

**Eye Contact:**

**Short Term Exposure:** Irritation  
**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** Fever, nausea, vomiting, diarrhea, headache, dizziness, sleep disturbances, blood disorders, kidney damage, paralysis, convulsions  
**Long Term Exposure:** No information on significant adverse effects

**Carcinogen Status:**

**OSHA:** No  
**NTP:** No  
**IARC:** No



**Anti-AtherOx<sup>®</sup> IgG and IgM HRP-Conjugated Antibody (Sucrose)**

**Inhalation:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** Irritation, changes in body temperature, weight loss, difficulty breathing

**Skin Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information is available

**Eye Contact:**

**Short Term Exposure:** Irritation

**Long Term Exposure:** No information is available

**Ingestion:**

**Short Term Exposure:** No information on significant adverse effects

**Long Term Exposure:** No information on significant adverse effects

**Carcinogen Status:**

**OSHA:** No

**NTP:** No

**IARC:** No

**Anti-AtherOx<sup>®</sup> IgG and IgM HRP-Conjugated Antibody (Amphotericin B)**

**Inhalation:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Eye Contact:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Carcinogen Status:**

**OSHA:** No

**NTP:** No

**IARC:** No

**Anti-AtherOx<sup>®</sup> Normal/Positive Controls (Human Serum)**

**Inhalation:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available



**Eye Contact:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Carcinogen Status:**

**OSHA:** No

**NTP:** No

**IARC:** No

**Anti-AtherOx<sup>®</sup> Calibrators (Human Serum)**

**Inhalation:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Skin Contact:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Eye Contact:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Ingestion:**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Carcinogen Status:**

**OSHA:** No

**NTP:** No

**IARC:** No

**SECTION 4: FIRST AID MEASURES**

**INHALATION:** If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

**SKIN CONTACT:** Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Thoroughly clean and dry contaminated clothing and shoes before reuse.

**EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.



**INGESTION:** Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. Give large amounts of water or milk. Allow vomiting to occur. When vomiting occurs, keep head lower than hips to help aspiration. If person is unconscious, turn head to side. Get medical attention immediately.

## **SECTION 5: FIRE FIGHTING MEASURES**

### **FIRE AND EXPLOSION HAZARDS:**

**All Kit Components:** Slight fire hazard. Air mixtures may ignite or explode.

### **EXTINGUISHING MEDIA:**

**All Kit Components:** Regular dry chemical, carbon dioxide, water, regular foam  
Large fires: Use regular foam or flood with fine water spray.

### **FIRE FIGHTING:**

**All Kit Components:** Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**OCCUPATIONAL RELEASE:** Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry. Wash hands thoroughly after cleanup of spill.

## **SECTION 7: HANDLING AND STORAGE**

Store as a kit at 2 to 8° C. Keep containers tightly closed. Wash hands with soap and water after handling.

## **SECTION 8: EXPOSURE CONTROLS PERSONAL PROTECTION**

### **EXPOSURE LIMITS:**

#### **Stopping Solution (0.36 N Sulfuric Acid):**

1 mg/m<sup>3</sup> OSHA TWA

0.2 mg/m<sup>3</sup> ACGIH TWA (thoracic particulate)

3 mg/m<sup>3</sup> ACGIH STEL

1 mg/m<sup>3</sup> NIOSH recommended TWA 10 hour(s)

**All Other Kit Components:** No occupational exposure limits established.

**PERSONAL PROTECTIVE EQUIPMENT:**

**Eye Protection:** Wear ANSI Z87 safety glasses with side shields.

**Clothing:** Laboratory coat.

**Gloves:** Wear chemical resistant gloves.

**Respirator:** Not required

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Reagents are aqueous (i.e., water based) solutions sometimes color-coded by the addition of non-hazardous coloring agents to ease identification.

**SECTION 10: STABILITY AND REACTIVITY**

**REACTIVITY:** All reagents are stable under recommended storage conditions.

**CONDITIONS TO AVOID:** None reported

**INCOMPATIBILITIES:** None reported

**HAZARDOUS DECOMPOSITION:** Nature of decomposition products not known.

**POLYMERIZATION:** Will not occur.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**HEALTH EFFECTS: Stopping Solution (0.36 N Sulfuric Acid):**

**Short Term Exposure:** No information available

**Long Term Exposure:** No information available

**Inhalation:**

**Acute Exposure:** No information available

**Chronic Exposure:** No information available

**Skin Contact:**

**Acute Exposure:** Irritation

**Chronic Exposure:** No information available

**Eye Contact:**

**Acute Exposure:** No information available

**Chronic Exposure:** No information available

**Ingestion:**

**Acute Exposure:** No information available

**Chronic Exposure:** No information available

**HEALTH EFFECTS (All Other Kit Components):** No information available

## SECTION 12: ECOLOGICAL INFORMATION

**ECOTOXICITY DATA:** No information available

## SECTION 13: DISPOSAL CONSIDERATIONS

Keep out of water supplies and sewers. Dispose in accordance with all applicable regulations.

## SECTION 14: TRANSPORT INFORMATION

### **U.S. DEPARTMENT OF TRANSPORTATION:**

**Stopping Solution (0.36 N Sulfuric Acid):** Exempt per 49 CFR 173.136 B DOT skin corrosion test results.

**All Other Kit Components:** Not regulated

### **CANADIAN TRANSPORTATION OF DANGEROUS GOODS:**

**Stopping Solution (0.36 N Sulfuric Acid):** Exempt per skin corrosion test results.

**All Other Kit Components:** Not regulated

**LAND TRANSPORT ADR:** Exempt

**LAND TRANSPORT RID:** Exempt

### **AIR TRANSPORT IATA:**

**Stopping Solution (0.36 N Sulfuric Acid):** Exempt per skin corrosion test results.

**All Other Kit Components:** Not regulated

## SECTION 15: REGULATORY INFORMATION

### **U.S. REGULATIONS:**

#### **CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):**

**Stopping Solution (0.36 N Sulfuric acid):** 1,000 lb RQ

**All Other Kit Components:** Not regulated

#### **SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):**

**Stopping Solution (0.36 N Sulfuric Acid):** 1,000 lb TPQ

**All Other Kit Components:** Not regulated

#### **SARA TITLE III 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):**

**Stopping Solution (0.36 N Sulfuric Acid):** 1,000 lb RQ

**All Other Kit Components:** Not regulated



**SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES**

**(40 CFR 370.21):**

**Substrate (3,3',5,5'-Tetramethylbenzidine):**

- Acute: No
- Chronic: Yes
- Fire: No
- Reactive: No
- Sudden Release: No

**33X PBS/Tween 20 Wash Concentrate (Sodium Chloride):**

- Acute: Yes
- Chronic: No
- Fire: No
- Reactive: No
- Sudden Release: No

**Stopping Solution (0.36 N Sulfuric Acid):**

- Acute: Yes
- Chronic: No
- Fire: No
- Reactive: No
- Sudden Release: No

**All Other Kit Components:** Not regulated

**SARA TITLE III SECTION 313 (40 CFR 372.65):**

**All Kit Components:** Not regulated

**OSHA PROCESS SAFETY (29 CFR 1910.119):**

**All Kit Components:** Not regulated

**STATE REGULATIONS:**

**California Proposition 65:**

**All Kit Components:** Not regulated

**CANADIAN REGULATIONS:**

**WHMIS CLASSIFICATION:** Not determined

**EUROPEAN UNION REGULATIONS:**

**EU RISK AND SAFETY PHRASES:**

**33X PBS/Tween 20 Wash Concentrate (Sodium Chloride):**

R 36	Irritating to eyes.
S 24	Avoid contact with skin.
S 25	Avoid contact with eyes.
S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 46	If swallowed, seek medical advice immediately and show container or label.



**Stopping Solution (0.36 N Sulfuric Acid):**

S 24	Avoid contact with skin.
S 25	Avoid contact with eyes.

**All Other Kit Components:** Not determined

**NATIONAL INVENTORY STATUS:**

**U.S. INVENTORY (TSCA):** All products are subject to regulation under the Federal Food, Drug and Cosmetics Act and are, therefore, exempt from the US Toxic Substances Control Act Inventory Listing requirements.

**SECTION 16: OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. Corgenix, Inc. shall not be held liable for any damages resulting from handling or from contact with the above product.