

Section 1: Product and Company Information

Product Name	Mouse IgG Anti-Chick Type II Collagen Antibody Assay Kit
Catalog Number(s)	2031
Company	Chondrex, Inc.
Street Address	2607 151 st Place NE
City, State, Zip Code, Country	Redmond, WA 98052
Phone	(425) 702-6365 or (888) 246-6373
Fax	(425) 882-3094

Section 2: Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>
Standard (0.005% sodium azide)	26628-22-8
Solution A – Blocking Buffer (0.005% sodium azide)	26628-22-8
Solution B – Sample/Standard Dilution Buffer (0.005% sodium azide)	26628-22-8
Stop Solution – 2N sulfuric acid	7664-93-9
OPD/Urea Tablets – O-phenylenediamine dihydrochloride	615-28-1

Section 3: Hazards Identification**Emergency Overview**

Sodium azide – highly toxic (USA), very toxic (EU), heating may cause an explosion.

Sulfuric acid – highly toxic (USA), toxic (EU), may cause cancer by inhalation.

OPD – Toxic, dangerous to the environment.

Potential Health Effects

Sodium azide – very toxic by inhalation, contact with skin or ingestion. Contact with acids, liberates very toxic gas. Very toxic to aquatic organisms. Readily absorbed through skin. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Target organs: nerves and heart.

Sulfuric acid – toxic by inhalation, causes burns. Target organs: teeth, cardiovascular system.

OPD – harmful by inhalation and in contact with skin. Toxic if swallowed. Irritating to eyes. Limited evidence of carcinogenic effect. May cause sensitization by skin contact. Toxic to aquatic organisms. Target organs: bladder, liver.

Section 4: First Aid Measures

Sodium azide – if swallowed, wash out mouth with water provided person is conscious. Call a physician if symptoms develop. If inhaled, move to fresh air. If not breathing, give artificial respiration. If breathing becomes difficult, call a physician. In case of contact, immediately wash skin with soap and copious amounts of water. Obtain medical attention if symptoms develop (redness, itching, etc.). Remove contaminated clothes and wash before re-use. In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Obtain medical attention if symptoms develop (redness, itching, etc.).

Sulfuric acid – in case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes. Assure adequate flushing of the eyes by separating the eyelids with fingers. If inhaled, remove to fresh air. If not breathing, give oxygen. If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. Wash contaminated clothing before reuse. Discard contaminated shoes.

OPD – if swallowed, wash out mouth with water provided person is conscious; call a physician immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes; call a physician. In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers; call a physician.

Section 5: Fire Fighting Measures

Sodium azide – extinguishing media: dry chemical powder, do not use water. Protective equipment: wear self-contained breathing apparatus and protective clothing. Emits toxic fumes under fire conditions. Azide reacts with many heavy metals such as lead, copper, mercury, silver, and gold to form explosive compounds. Copper and lead azides are more sensitive than nitroglycerine. Azide reacts with metal halides to give a range of metal azide halides (may be explosive). Incompatible with chromyl chloride, hydrazine bromine, carbon disulfide, dimethyl sulfate, dibromomalonitrile.

Sulfuric acid – noncombustible. Use extinguishing media appropriate to surrounding fire conditions. Do not use water. Protective equipment: wear self-contained breathing apparatus and protective clothing. Emits toxic fumes under fire conditions. Contact with other material may cause fire.

OPD – extinguishing media: water spray, carbon dioxide, dry chemical powder, or appropriate foam. Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Emits toxic fumes under fire conditions.

Section 6: Accidental Release Measures

Sodium azide – evacuate area. Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after materials pickup is complete.

Sulfuric acid – evacuate area. Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Cover with dry-lime, sand or soda ash. Place in covered containers using non-sparkling tools and transport outdoors. Ventilate area and wash spill site after materials pickup is complete.

OPD – evacuate area. Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after materials pickup is complete.

Section 7: Handling and Storage

Sodium Azide – keep tightly closed and covered when not in use. Store at -20°C.

Sulfuric acid – keep tightly closed and covered when not in use. Store at -20°C. Never add water to this material. Always add this material to water.

OPD – do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure. Keep tightly closed. Store at -20°C.

Section 8: Exposure Controls/Personal Protective Equipment

Sodium azide - area ventilation is generally adequate. Compatible chemical-resistant gloves. Chemical safety goggles. Wash thoroughly after handling. Do not breathe dust. Do not get in eyes, skin, or clothing. Avoid prolonged or repeated exposure.

Sulfuric acid – area ventilation is generally adequate. Wear appropriate NIOSH/MSHA-approved respirator. Compatible chemical-resistant gloves. Chemical safety goggles. Use in chemical fume hood. Wash thoroughly after handling. Do not breathe vapor. Do not get in eyes, skin, or clothing. Avoid prolonged or repeated exposure. Carcinogen, highly toxic, corrosive.

OPD – Use only in a chemical fume hood. Safety shower and eye bath recommended. Wear appropriate NIOSH/MSHA-approved respirator. Compatible chemical-resistant gloves. Chemical safety goggles. Wash thoroughly after handling.

Section 9: Physical/Chemical Properties

Sodium azide – liquid, melting point – 275C, solubility – water, specific gravity – 1.846, pH 9.0.

Sulfuric acid – clear, colorless liquid, vapor press – 1MM 145.8C, specific gravity – 1.840, vapor density - <0.3 @25C.

OPD – solid, molecular weight 181.07 AMU, MP/MP range – 258C.

Section 10: Stability and Reactivity
Sodium azide

Stability	Stable
Materials to Avoid	Heat sensitive, strong acids, strong oxidizing agents, strong bases, heavy metals
Hazardous Decomposition Products	Nitrogen oxides, reacts with protic solvents (water, alcohols, amines, etc.) to release toxic hydrazoic acid
Hazardous Polymerization	Not expected to occur

Sulfuric acid

Stability	Stable
Materials to Avoid	Strong dehydrating agent which may cause ignition of finely divided materials on contact. Do not allow water to enter container. Avoid bases, halides, organic materials, finely powdered metals. Protect from moisture. Incompatible with carbides, chlorates, fulminates, nitrates, picrates, cyanides, alkali halides, nitromethane, phosphorous, nitrites, nitroaryl amines, hexalithium disilicide, phosphorous (III) oxide.
Hazardous Decomposition Products	Sulfur oxides

OPD

Stability	Stable
Materials to Avoid	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas.
Hazardous Polymerization	Not expected to occur

Section 11: Toxicological Information

Sodium azide – may cause skin irritation, may be fatal if absorbed through skin, may cause eye irritation, may be fatal if inhaled, material may be irritating to mucous membranes and upper respiratory tract, may be fatal if swallowed. Exposure can cause: nausea, headache and vomiting. Laboratory experiments in animals have shown sodium azide to produce a profound hypotensive effect. Demyelination of myelinated nerve fibers in the central nervous system, testicular damage, blindness, attacks of rigidity, hepatic and cerebral effects. Target organ(s): nerves, heart, brain, laboratory experiments have shown mutagenic effects.

Sulfuric acid – may be fatal if inhaled. Harmful if swallowed or absorbed through skin. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. The international agency for research on cancer (IARC) has determined that occupational exposure to strong-inorganic acid mists containing sulfuric acid is carcinogenic to humans (group 1). Target organ(s): teeth, cardiovascular system. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

OPD – may cause skin irritation. Harmful if absorbed through skin. Causes eye irritation. Harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract. Toxic if swallowed. May cause allergic skin reaction. Target organ: liver, bladder. Intraperitoneal – rat LD50 – 290 mg/kg. Intraperitoneal – mouse LD50 – 200 mg/kg.

Section 12: Ecological Information

Data not available

Section 13: Disposal Considerations

Sodium azide – clean up and dispose of waste on accordance with all federal, state, and local environmental regulations.

Sulfuric acid – for small quantities: cautiously add to a large stirred excess of water. Adjust the pH to neutral, separate any insoluble solids or liquids and package them for hazardous waste disposal. Flush the aqueous solution down the drain with plenty of water. The hydrolysis and neutralization reactions may generate heat and fumes which can be controlled by the rate of addition. Clean up and dispose of waste on accordance with all federal, state, and local environmental regulations.

OPD – 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. Observe all federal, state, and local environmental regulations.

Section 14: Transport Information

This substance(s) in the quantities supplied is considered to be non-hazardous for transport (DOT/IATA).

Section 15: Regulatory Information**Sodium Azide****European Information**

EC index no: 011-004-00-7, R28, R32, R50/53, S28, S45, S60, S61

United States Information

This product is subject to SARA section 313 reporting requirements. This product is solely for research and development (R&D) purposes only. It may only be handled by technically qualified individuals.

Sulfuric acid**European Information**

EC index no: 016-020-00-8, R35, S26, S30, S45

United States Information

This product is subject to SARA section 313 reporting requirements. This product is solely for research and development (R&D) purposes only. It may only be handled by technically qualified individuals.

OPD**European Information**

R20/21, R25, R36, R40, R43, R50/53, R68, S28, S36/37, S45, S60, S61

United States Information

This product is subject to SARA section 313 reporting requirements. This product is solely for research and development (R&D) purposes only. It may only be handled by technically qualified individuals

Section 16: Other Information

For R&D use only. Not for drug, household, or other uses. The above information is believed to be correct, but does not claim to be all inclusive and shall be used only as a guide. Chondrex, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.