Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

1 Identification

· **Product identifier**

· **Trade name: Collagenase Kits – Activator 1**
· **Product code:** 30049

· **Recommended use and restriction on use**
· **Recommended use:** Laboratory chemicals
· **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use

· **Details of the supplier of the Safety Data Sheet**
· **Manufacturer/Supplier:**
Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com
· **Emergency telephone number:**
ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

2 Hazard(s) identification

· **Classification of the substance or mixture**

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

· **Label elements**
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms:**

GHS06 GHS08

· **Signal word:** Danger
· **Hazard statements:**
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H373 May cause damage to organs through prolonged or repeated exposure.
· **Precautionary statements:**
P260 Do not breathe mist.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water.
P314 Get medical advice/attention if you feel unwell.

(Cont'd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

Trade name: Collagenase Kits – Activator 1

(Cont'd. of page 1)

P330 Rinse mouth.
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

6283-24-5	4-aminophenylmercury acetate Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330 STOT RE 2, H373	0.5-0.8%
1310-73-2	sodium hydroxide Met. Corr.1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318	0.3-<0.5%

· **Additional information:**
For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

· **Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Personal protection for the First Aider.
· **After inhalation:**
Supply fresh air.
Seek immediate medical advice.
· **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
· **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
· **Most important symptoms and effects, both acute and delayed:**
Coughing
Gastric or intestinal disorders when ingested.
Disorientation
· **Danger:**
Harmful if swallowed.

(Cont'd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

Trade name: Collagenase Kits – Activator 1

(Cont'd. of page 2)

Toxic in contact with skin.
May be harmful if inhaled.
May cause damage to organs through prolonged or repeated exposure.
May cause neurotoxic effects.
· **Indication of any immediate medical attention and special treatment needed:**
Contains soluble mercury salts. Consult literature for specific antidotes.
Medical supervision for at least 48 hours.
If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
The product is not flammable.
Use fire fighting measures that suit the environment.
· **For safety reasons unsuitable extinguishing agents:** None.
· **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
· **Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
Ensure adequate ventilation.
· **Environmental precautions**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
· **Methods and material for containment and cleaning up**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Send for recovery or disposal in suitable receptacles.
· **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.

7 Handling and storage

· **Handling**
· **Precautions for safe handling:**
Use personal protective equipment as required.

(Cont'd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

Trade name: Collagenase Kits – Activator 1

(Cont'd. of page 3)

Open and handle receptacle with care.
Avoid contact with the eyes and skin.
Avoid breathing mist, vapors, or spray.
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.

· **Information about protection against explosions and fires:**
Keep respiratory protective device available.

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

· **Storage**

· **Requirements to be met by storerooms and receptacles:**
Store in cool, dry conditions in well sealed receptacles.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
6283-24-5 4-aminophenylmercury acetate	
PEL (USA)	Long-term value: 0.1 mg/m³ as Hg; see OSHA standard interpretation memo
REL (USA)	Ceiling limit value: 0.1 mg/m³ as Hg; Skin
TLV (USA)	Long-term value: 0.1 mg/m³ as Hg; Skin
EL (Canada)	Long-term value: 0.05 mg/m³ Ceiling limit value: 0.1 mg/m³ as Hg; Skin
EV (Canada)	Long-term value: 0.025 mg/m³ as Hg, Skin
LMPE (Mexico)	Long-term value: 0.1 mg/m³ PIEL; como Hg
1310-73-2 sodium hydroxide	
PEL (USA)	Long-term value: 2 mg/m³
REL (USA)	Ceiling limit value: 2 mg/m³
TLV (USA)	Ceiling limit value: 2 mg/m³
EL (Canada)	Ceiling limit value: 2 mg/m³
EV (Canada)	Ceiling limit value: 2 mg/m³
LMPE (Mexico)	Ceiling limit value: 2 mg/m³

(Cont'd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

Trade name: Collagenase Kits – Activator 1

(Cont'd. of page 4)

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
· **Engineering controls:** Provide adequate ventilation.
· **Breathing equipment:** Not required under normal conditions of use.
· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
· **Material of gloves**
Laminated film gloves.
Nitrile rubber, NBR
Neoprene gloves
Natural rubber, NR
Sensibilization by the components in the glove materials is possible.
· **Eye protection:**

Safety glasses

· **Body protection:** Protective work clothing
· **Limitation and supervision of exposure into the environment**
No relevant information available.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **Appearance:**	
Form:	Liquid
Color:	Colorless
· **Odor:**	Odorless
· **Odor threshold:**	Not determined.
· **pH-value at 20°C (68 °F):**	>7
· **Melting point/Melting range:**	Not determined.
· **Boiling point/Boiling range:**	100°C (212 °F)
· **Flash point:**	Not applicable.
· **Flammability (solid, gaseous):**	Not applicable.

(Cont'd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

Trade name: Collagenase Kits – Activator 1

(Cont'd. of page 5)

· **Auto-ignition temperature:**	Not determined.
· **Decomposition temperature:**	Not determined.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits**	
Lower:	Not determined.
Upper:	Not determined.
· **Oxidizing properties:**	Not determined.
· **Vapor pressure at 20°C (68 °F):**	23hPa (17.3 mm Hg)
· **Density:**	
Relative density:	Not determined.
Vapor density:	Not determined.
Evaporation rate:	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Other information**	No relevant information available.

10 Stability and reactivity

· **Reactivity:** No relevant information available.
· **Chemical stability:** Stable under normal temperatures and pressures.
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** Excessive heat.
· **Incompatible materials** No relevant information available.
· **Hazardous decomposition products** Mercury oxides.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
ATE (Acute Toxicity Estimate)		
Oral	LD50	500-1000 mg/kg
Dermal	LD50	500-1000 mg/kg

(Cont'd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

Trade name: Collagenase Kits – Activator 1

(Cont'd. of page 6)

Inhalative	LC50/4h	>25 mg/l

· **Primary irritant effect:**
· **On the skin:** Based on available data, the classification criteria are not met.
· **On the eye:** Based on available data, the classification criteria are not met.
· **Sensitization:** Based on available data, the classification criteria are not met.

· **IARC (International Agency for Research on Cancer):**
None of the ingredients are listed.
· **NTP (National Toxicology Program):**
None of the ingredients are listed.
· **OSHA-Ca (Occupational Safety & Health Administration):**
None of the ingredients are listed.

· **Probable route(s) of exposure:**
Ingestion.
Inhalation.
Eye contact.
Skin contact.
· **Acute effects (acute toxicity, irritation and corrosivity):**
Harmful if swallowed.
Toxic in contact with skin.
May be harmful if inhaled.
· **Repeated dose toxicity:** May cause neurotoxic effects.
· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
· **Carcinogenicity:** Based on available data, the classification criteria are not met.
· **Reproductive toxicity:** Based on available data, the classification criteria are not met.
· **STOT-single exposure:** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure:** May cause damage to organs through prolonged or repeated exposure.
· **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity** Harmful to aquatic life with long lasting effects.
· **Persistence and degradability** No relevant information available.
· **Bioaccumulative potential:** No relevant information available.
· **Mobility in soil:** No relevant information available.
· **Additional ecological information**
· **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

(Cont'd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

Trade name: Collagenase Kits – Activator 1

(Cont'd. of page 7)

· **Other adverse effects** No relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Incinerate in accordance with local, state and federal regulations.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

· **Uncleaned packagings**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**	
· **DOT, ADR, IMDG, IATA**	UN2024
· **UN proper shipping name**	
· **DOT, IATA**	Mercury compound, liquid, n.o.s. (4-aminophenylmercury acetate)
· **ADR, IMDG**	MERCURY COMPOUND, LIQUID, N.O.S. (4-aminophenylmercury acetate)
· **Transport hazard class(es)**	
· **DOT**	

· **Class**	6.1 Toxic substances
· **Label**	6.1
· **ADR**	

· **Class**	6.1 (T4) Toxic substances
· **Label**	6.1

(Cont'd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

Trade name: Collagenase Kits – Activator 1

(Cont'd. of page 8)

· **IMDG, IATA**

· **Class**	6.1 Toxic substances
· **Label**	6.1
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	III
· **Environmental hazards**	
· **Marine pollutant:**	No
· **Special precautions for user**	Warning: Toxic substances
· **Danger code (Kemler):**	60
· **EMS Number:**	F-A,S-A
· **Segregation groups**	Heavy metals and their salts (including their organometallic compounds), mercury and mercury compounds
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.

· **Transport/Additional information:**

Excepted Quantities (EQ)
EQ Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

· **DOT**

Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· **ADR**

Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· **IMDG**

Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

(Cont'd. on page 10)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

Trade name: Collagenase Kits – Activator 1

(Cont'd. of page 9)

· **IATA**

Limited Quantity for packages less than 30 kg gross and inner packagings less than 0.5 L each / 2 L net.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **United States (USA)**
· **SARA**

· **Section 302 (extremely hazardous substances):**
None of the ingredients are listed.
· **Section 355 (extremely hazardous substances):**
None of the ingredients are listed.
· **Section 313 (Specific toxic chemical listings):**
None of the ingredients are listed.
· **TSCA (Toxic Substances Control Act)**
All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**	
None of the ingredients are listed.	
· **Chemicals known to cause reproductive toxicity for females:**	
None of the ingredients are listed.	
· **Chemicals known to cause reproductive toxicity for males:**	
None of the ingredients are listed.	
· **Chemicals known to cause developmental toxicity:**	
6283-24-5	4-aminophenylmercury acetate

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency):**
None of the ingredients are listed.
· **IARC (International Agency for Research on Cancer):**
None of the ingredients are listed.
· **NIOSH-Ca (National Institute for Occupational Safety and Health):**
None of the ingredients are listed.
· **Canadian Domestic Substances List (DSL):**
All ingredients listed on DSL or NDSL.

(Cont'd. on page 11)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 22, 2017 Revision: September 22, 2017

Trade name: Collagenase Kits – Activator 1

(Cont'd. of page 10)

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** September 22, 2017 / -

· **Abbreviations and acronyms:**
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistant, Bio-accumulable, Toxique
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety & Health Administration
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 1: Acute toxicity – Category 1
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

· **Sources**
Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

SDS Prepared by:
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com