

Safety Data Sheet

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

Printing date: March 02, 2017

Revision: March 02, 2017

1 Identification

- **Product identifier**
- **Trade name:** 10X Chloramine T, Hydroxyproline Assay Kit
- **Product code:** 60174X
- **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**
Flam. Liq. 2 H225 Highly flammable liquid and vapor.
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Additional information:** Contact with acids liberates toxic gas.

Label elements**GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms:

GHS02 GHS05 GHS08

- **Signal word:** Danger
- **Hazard statements:**
H225 Highly flammable liquid and vapor.
H314 Causes severe skin burns and eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Precautionary statements:**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P260 Do not breathe mist/vapors/spray.
P284 In case of inadequate ventilation wear respiratory protection.
P264 Wash thoroughly after handling.

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- P280 Wear protective gloves/protective clothing/eye protection.
- P240 Ground/bond container and receiving equipment.
- P233 Keep container tightly closed.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
- P363 Wash contaminated clothing before reuse.
- P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
- P370+P378 In case of fire: Use for extinction: Alcohol resistant foam or water spray.
- P405 Store locked up.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:** Contact with acids liberates toxic gas.

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

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

64-17-5	ethanol  Flam. Liq. 2, H225  Eye Irrit. 2A, H319	>80%
7080-50-4	N-chloro-p-toluenesulfonamide sodium salt  Resp. Sens. 1, H334  Skin Corr. 1B, H314; Eye Dam. 1, H318  Acute Tox. 4, H302	10-20%

· **Additional information:**

For the wording of the listed Hazard Statements refer to section 16.

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air.

Seek immediate medical advice.

Provide oxygen treatment if affected person has difficulty breathing.

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

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- **After skin contact:**
 - Immediately remove any clothing soiled by the product.
 - Immediately rinse with water.
 - If skin irritation continues, consult a doctor.
 - Seek immediate medical help for blistering or open wounds.
- **After eye contact:**
 - Protect unharmed eye.
 - 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:**
 - Asthma attacks
 - Dizziness
 - Breathing difficulty
 - Coughing
 - Methaemoglobinaemia
 - Allergic reactions
 - Nausea in case of ingestion.
 - Gastric or intestinal disorders when ingested.
 - Strong caustic effect on skin and mucous membranes.
 - Disorientation
- **Danger:**
 - Danger of gastric perforation.
 - Danger of impaired breathing.
 - Causes serious eye damage.
 - Danger of convulsion.
 - Condition may deteriorate with alcohol consumption.
 - Danger through skin absorption.
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Indication of any immediate medical attention and special treatment needed:**
 - Contains N-chloro-p-toluenesulfonamide sodium salt. May produce an allergic reaction.
 - Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.
 - If necessary oxygen respiration treatment.
 - In cases of irritation to the lungs, initial treatment with corticosteroid inhalants.
 - Medical supervision for at least 48 hours.
 - Later observation for pneumonia and pulmonary edema.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
 - Water fog / haze
 - Alcohol resistant foam
 - Gaseous extinguishing agents
 - Carbon dioxide
- **For safety reasons unsuitable extinguishing agents:** None.

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- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
Highly flammable liquid and vapor.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:**
Eliminate all ignition sources if safe to do so.
Cool endangered containers with water fog.
In case of fire involving large quantities, evacuate area and fight fire from the upwind side.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Keep away from ignition sources.
Protect from heat.
Isolate area and prevent access.
- **Environmental precautions**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up**
Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).
Do not flush with water or aqueous cleansing agents
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:**
Open and handle receptacle with care.
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
- **Information about protection against explosions and fires:**
Highly flammable liquid and vapor.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.

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Flammable gas-air mixtures may be formed in empty containers/receptacles.

Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

Do not store together with acids.

Further information about storage conditions: Keep containers tightly sealed.

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:
64-17-5 ethanol

PEL (USA)	Long-term value: 1900 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m ³ , 1000 ppm
EL (Canada)	Short-term value: 1000 ppm
EV (Canada)	Long-term value: 1900 mg/m ³ , 1000 ppm
LMPE (Mexico)	Long-term value: 1000 ppm A3

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.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Engineering controls: Provide adequate ventilation.

Breathing equipment:

Use suitable respiratory protective device in case of insufficient ventilation.

Use suitable respiratory protective device when aerosol or mist is formed.

Protection of hands:


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves

Nitrile rubber, NBR

Neoprene gloves

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 Butyl rubber, BR
 Natural rubber, NR

· Eye protection:


Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· Body protection: Protective work clothing

· Limitation and supervision of exposure into the environment

No relevant information available.

· Risk management measures No relevant information available.

9 Physical and chemical properties
· Information on basic physical and chemical properties
· Appearance:

Form:	Liquid
Color:	Colorless

Odor:	Alcohol-like
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Odor threshold:	Not determined.
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· pH-value:	Not determined.
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· Melting point/Melting range:	Not determined.
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· Boiling point/Boiling range:	78-82 °C (172-180 °F) (Estimate)
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· Flash point:	11-15 °C (52-59 °F) (Estimate)
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· Flammability (solid, gaseous):	Not applicable.
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· Auto-ignition temperature:	Not determined.
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· Decomposition temperature:	Not determined.
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· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
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· Explosion limits

Lower:	3.5 Vol % (Estimate)
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Upper:	15.0 Vol % (Estimate)
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· Oxidizing properties:	Not determined.
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· Vapor pressure:	Not determined.
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· Density:

Relative density:	Not determined.
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Vapor density:	Not determined.
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Evaporation rate:	Not determined.
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· Solubility in / Miscibility with

Water:	Fully miscible.
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- **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**
Highly flammable liquid and vapor.
Contact with acids releases toxic gases.
Toxic fumes may be released if heated above the decomposition point.
Used empty containers may contain product gases which form explosive mixtures with air.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
- **Conditions to avoid**
Keep ignition sources away - Do not smoke.
Store away from oxidizing agents.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**
Carbon monoxide and carbon dioxide
Chlorine
Chlorine compounds
Nitrogen oxides (NOx)

11 Toxicological information

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

 · **LD/LC50 values that are relevant for classification:**
64-17-5 ethanol

Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4h	20000 mg/l (rat)

7080-50-4 N-chloro-p-toluenesulfonamide sodium salt

Oral	LD50	935 mg/kg (rat) (Refences CAS # 127-65-1)
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- **Primary irritant effect:**
- **On the skin:** Strong caustic effect on skin and mucous membranes.
- **On the eye:** Strong caustic effect.
- **Sensitization:** Sensitization possible through inhalation.

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· IARC (International Agency for Research on Cancer):

64-17-5	ethanol	1
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· 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.

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

- **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:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information
· Toxicity
· Aquatic toxicity

The product contains materials that are harmful to the environment.

7080-50-4 N-chloro-p-toluenesulfonamide sodium salt

EC50	4.5 mg/l (daphnia) (48h)
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- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Ecotoxic effects:**
- **Remark:** Harmful to aquatic life.
- **Additional ecological information**
- **General notes:**
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
 Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

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13 Disposal considerations
Waste treatment methods
Recommendation:

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.

14 Transport information
UN-Number

DOT, ADR, IMDG, IATA

UN2924

UN proper shipping name

DOT

Flammable liquids, corrosive, n.o.s. (Ethanol, N-chloro-p-toluenesulfonamide sodium salt)

ADR, IMDG

FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Ethanol, N-chloro-p-toluenesulfonamide sodium salt)

IATA

Flammable liquid, corrosive, n.o.s. (Ethanol, N-chloro-p-toluenesulfonamide sodium salt)

Transport hazard class(es)

DOT



Class

3 Flammable liquids

Label

3, 8

ADR



Class

3 (FC) Flammable liquids

Label

3+8

IMDG



Class

3 Flammable liquids

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· **Label** 3/8
 · **IATA**


 · **Class** 3 Flammable liquids
 · **Label** 3 (8)

· **Packing group**
 · **DOT, ADR, IMDG, IATA** II

· **Environmental hazards**
 · **Marine pollutant:** No

· **Special precautions for user** Warning: Flammable liquids
 · **Danger code (Kemler):** 338
 · **EMS Number:** F-E,S-C
 · **Segregation groups** Alkalis

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

Transport/Additional information:


Excepted Quantities (EQ)
 EQ Code: E2
 Maximum net quantity per inner packaging: 30 mL
 Maximum net quantity per outer packaging: 500 mL

DOT


Limited Quantity for packages less than 30 kg gross and inner packagings less than 1 L each.

ADR


Limited Quantity for packages less than 30 kg gross and inner packagings less than 1 L each.

IMDG


Limited Quantity for packages less than 30 kg gross and inner packagings less than 1 L each.

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· IATA



Limited Quantity for packages less than 30 kg gross and inner packagings less than 0.5 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)

7080-50-4: Not listed on the TSCA Inventory.

64-17-5 | ethanol

· Proposition 65 (California)
· Chemicals known to cause cancer:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 | ethanol

· 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:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 | ethanol

· Carcinogenic categories
· EPA (Environmental Protection Agency):

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

64-17-5 | ethanol

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· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

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Canadian Domestic Substances List (DSL):

7080-50-4: Not listed on the DSL or NDSL (Non-Domestic Substances List).

64-17-5 | ethanol

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 March 02, 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: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Resp. Sens. 1: Respiratory sensitisation – Category 1

SourcesWebsite, 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

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