



## Safety Data Sheet

AutoGen, Inc.  
84 October Hill Rd.  
Holliston, MA 01746  
774.233.3003

Date revised: 02-22-2024

Emergency Telephone Number: 800.633.8253 (USA & Canada) 801.629.0667 International  
Agent: PERS

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### Section 1 – Product and Company Information

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Product Name: Tissue Digestion Solution A  
Product Number: TD-M1 or AG00117-TDM1

Company: AutoGen, Inc.  
Address: 84 October Hill Rd.  
Holliston, MA 01746  
Phone: 774.233.3000  
Web: [www.autogen.com](http://www.autogen.com)

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### Section 2 – Hazards Identification

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<u>Chemical name</u>	<u>CAS #</u>
Tris base	77-86-1
HCl	7647-01-0

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### Section 3 - Composition/ Information on Ingredients

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<u>Component</u>	<u>CAS-NO</u>	<u>Weight by percent</u>
Tris	77-86-1	<1%
HCl	7647-01-0	<1%

#### Emergency overview

Appearance: white solid.



Warning! Causes eye, skin, and respiratory tract irritation. Hygroscopic (absorbs moisture from the air).

Target Organs: Respiratory system, eyes, skin.

#### Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be harmful if absorbed through the skin.

Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation: Causes respiratory tract irritation. May be harmful if inhaled.

Chronic: No information found.

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### Section 4- First Aid Measures

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Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

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### Section 5- Fire Fighting Measures

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General Information: As in any fire, wear a self-contained breathing apparatus in pressured demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 1

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### Section 6 – Accidental Release Measures

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General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.



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## Section 7 – Handling and Storage

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Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

Storage: Store in a cool, dry place. Store in a tightly closed container. Store protected from moisture.

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## Section 8 – Exposure controls/Personal Protection

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Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits: none listed

OSHA Vacated PELs: Tris(hydroxymethyl)aminomethane: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

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## Section 9 – Physical and Chemical Properties

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Physical State: Solid

Appearance: white

Odor: odorless

pH: 10-11.5 (5% aq.sol.)

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 219 - 220 deg C @ 10 mmHg

Freezing/Melting Point: > 168.5 deg C

Decomposition Temperature: Not available.

Solubility: Soluble.

Specific Gravity/Density: Not available.

Molecular Formula: C<sub>4</sub>H<sub>11</sub>NO<sub>3</sub>

Molecular Weight: 121.14

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## Section 10 – Stability and Reactivity

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Chemical Stability: Hygroscopic: absorbs moisture or water from the air.



Conditions to Avoid: Incompatible materials, dust generation, excess heat, exposure to moist air or water.

Incompatibilities with Other Materials: Strong oxidizing agents, bases, aluminum, brass, copper.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

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## Section 11 – Toxicological Information

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RTECS#:

CAS# 77-86-1: TY2900000

LD50/LC50:

CAS# 77-86-1:

Oral, rat: LD50 = 5900 mg/kg;

Carcinogenicity:

CAS# 77-86-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

Other Studies:

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## Section 12 – Ecological Information

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Ecotoxicity: No data available. No information available.

Environmental: No information found.

Physical: No information found.

Other: Do not empty into drains.

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## Section 13 – Disposal Considerations

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Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

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## Section 14 – Transport Information

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Not Regulated.

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## Section 15 – Regulatory Information

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US FEDERAL  
TSCA



CAS# 77-86-1 is listed on the TSCA inventory.

Health & Safety Reporting List  
None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules  
None of the chemicals in this product are under a Chemical Test Rule.

Section 12b  
None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule  
None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs  
None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances  
None of the chemicals in this product have a TPQ.

SARA Codes  
CAS # 77-86-1: immediate.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:  
This material does not contain any hazardous air pollutants.  
This material does not contain any Class 1 Ozone depletors.  
This material does not contain any Class 2 Ozone depletors.

Clean Water Act:  
None of the chemicals in this product are listed as Hazardous Substances under the CWA.  
None of the chemicals in this product are listed as Priority Pollutants under the CWA.  
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:  
None of the chemicals in this product are considered highly hazardous by OSHA.

STATE  
CAS# 77-86-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65  
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations  
European Labeling in Accordance with EC Directives  
Hazard Symbols:  
XI

Risk Phrases:  
R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:  
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)  
CAS# 77-86-1: 1

Canada - DSL/NDSL  
CAS# 77-86-1 is listed on Canada's DSL List.

Canada - WHMIS  
This product has a WHMIS classification of D2B.



This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

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## Section 16 – Other Information

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### Warranty

The factual information contained in this material safety data sheet is believed to be accurate and reflects, to the best of our knowledge, the currently available data pertaining to the chemicals. This information may be incomplete and is used only as a guide. Users are encouraged to investigate the suitability of the information with respect to their application. AutoGen, Inc. assumes no responsibility resulting from the use or handling of this compound.