



Safety Data Sheet

AutoGen, Inc.
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Holliston, MA 01746
774.233.3000

Date revised: 02-22-2024

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

Section 1 – Product and Company Information

Product Name: Plant Denaturing Solution A
Product Number: PL-R1 or AG00212-PLR1

Company: AutoGen, Inc.
Address: 84 October Hill Rd.
Holliston, MA 01746
Phone: 774.233.3000
Web: www.autogen.com

Section 2 – Hazards Identification

<u>Chemical name</u>	<u>CAS #</u>
Sodium Dodecyl Sulfate	151-21-3
Sodium Lauroyl Sarcosine	137-16-6
EDTA di-Sodium Dihydrate	6381-92-6
Water	

Pictogram:



Classification of the substance or mixture with Hazard Statements:

Flammable solids (Category 2), H228 Acute toxicity, Oral (Category 2), H302 Acute toxicity, Inhalation (Category 2), H332 Skin irritation (Category 2), H315 Serious eye damage (Category 1), H318 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335 Short-term (acute) aquatic hazard (Category 2), H401 Long-term (chronic) aquatic hazard (Category 3), H412



Signal Word:

Warning

Section 3 - Composition/ Information on Ingredients

<u>Component</u>	<u>CAS-NO</u>	<u>Weight by %</u>
Sodium Dodecyl Sulfate	151-21-3	1
Sodium Lauroyl Sarcosine	137-16-6	1
EDTA di-Sodium Dihydrate	6381-92-6	<1
Water	7732-18-5	97

EMERGENCY OVERVIEW:

WARNING! HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.

CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING

ORGANS: SKIN, EYES.

Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist.

Keep the container closed. Use only with adequate ventilation.

Wash thoroughly after handling.

Routes of entry : Inhalation. Ingestion.

Potential Acute Health Effects :

Eyes : Irritating to eyes.

Skin : Toxic in contact with skin. Irritating to skin.

Inhalation : Toxic by inhalation. Irritating to the respiratory system.

Ingestion : Toxic if swallowed.

Carcinogenic effects : No known significant effects or critical hazards.

Mutagenic effects : No known significant effects or critical hazards.

Teratogenicity / Reproductive toxicity : No known significant effects or critical hazards.

Medical conditions aggravated by over-exposure : Repeated skin exposure can produce

local skin destruction or dermatitis. Repeated or prolonged exposure to the substance

can produce lung damage. Repeated or prolonged contact with spray or mist may

produce chronic eye irritation and severe skin irritation. Repeated or prolonged

exposure to the substance can produce target organs damage.

See toxicological information (section 11)

INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT:

Cause burns to eyes, skin and digestive tract. Breathing mists can irritate the respiratory tract.



NFPA RATING (scale 0-4)

Health=1

Fire=0

Reactivity=0

Section 4- First Aid Measures

EYE CONTACT:

Get medical attention immediately. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses.

SKIN CONTACT:

Get medical attention immediately. Flush contaminated skin with plenty of water. Continue to rinse for at least 10 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing or wear gloves. Wash clothing before reuse. Clean shoes thoroughly before reuse.

INHALATION:

Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

INGESTION :

Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

PROTECTION OF FIRST-AIDERS:

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 5- Fire Fighting Measures



FLAMMABILITY OF THE PRODUCT

No specific hazard

EXTINGUISHING MEDIA

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

SPECIAL EXPOSURE HAZARDS

Not available.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SPECIAL REMARKS ON EXPLOSION HAZARDS :

Dust can combine with air to form an explosive mixture

Thermal decomposition may release toxic and/or hazardous gases. (Sodium Dodecyl Sulfate)

Section 6 – Accidental Release Measures

PERSONAL PRECAUTIONS

Immediately contact emergency personnel. Keep unnecessary personnel away.

Use suitable protective equipment.

ENVIRONMENTAL PRECAUTIONS

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

METHOD FOR CLEANING UP

If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Section 7 – Handling and Storage

HANDLING:

Do not ingest. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Wash thoroughly after handling.

STORAGE:

Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8 – Exposure controls/Personal Protection

CONSULT LOCAL AUTHORITIES FOR ACCEPTABLE EXPOSURE LIMITS.



ENGINEERING CONTROLS

Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

PERSONAL PROTECTION

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gasses or dusts. Recommended: splash goggles

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Body: lab coat

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Recommended: nitrile rubber

Hygiene: Wash hands, forearms and face thoroughly after handling chemical products, before eating, measures smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9 – Physical and Chemical Properties

Odor: Not available.

Color: Colorless to slightly yellow.

APPEARANCE:

Physical State and Appearance Liquid, foamed easily.

Molecular Weight: Not applicable.

Molecular Formula: Not applicable.

pH: pH8.0

Boiling/Condensation Point: The lowest known value is 99.9°C (211.8°F) (Water).

Melting/Freezing Point: May start to solidify at -0.1°C (31.8°F) based on data for: Water.

Evaporation Rate: 0.36 (Water) compared with (n-BUTYL ACETATE=1)

Section 10 – Stability and Reactivity

STABILITY/REACTIVITY:

The product is stable.

CONDITIONS OF INSTABILITY:

Avoid excessive heat. (Sodium Dodecyl Sulfate)

INCOMPATIBILITY WITH VARIOUS SUBSTANCE:

Highly reactive or incompatible with the following materials: oxidizing materials and acids.



HAZARDOUS POLYMERIZATION:

Will not occur.

CONDITION OF REACTIVITY:

Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.

Explosive in the presence of the following materials or conditions: shocks and mechanical impacts.

Section 11 – Toxicological Information

RTECS Number:

- Sodium lauryl sulfate: WT1050000
- N-lauroyl sarcosine-Na: Not available
- EDTA di-Sodium Dihydrate: AH4410000
- Water: ZC0110000

Toxicity: LD50=1288mg/kg(rat oral, as SDS)

LC50=3900 mg/m³(rat, inhalation, as SDS)

Chronic Effects on Humans: Contains material which causes damage to the following organs: skin, eyes.

Other toxic effects on humans: Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation (lung irritant).

Special remarks on other toxic effects on humans

Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation (lung irritant).

Special remarks on other toxic effects on humans

Material is irritating to mucous membranes and upper respiratory tract. MAY CAUSE

ALLERGIC

RESPIRATORY AND SKIN REACTION. (Sodium Dodecyl Sulfate)

Specific effects

Carcinogenic Effects	No known significant effects or critical hazards.
Mutagenic Effects	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Reproductive toxicity	No known significant effects or critical hazards.

Sensitization

Ingestion	No known significant effects or critical hazards.
Inhalation	Irritating to respiratory system.
Eyes	Irritating to eyes.
Skin	Irritating to skin.

Section 12 – Ecological Information

Ecotoxicity data

United States

Product/ingredient name	Species	Period	Result
Sodium Dodecyl Sulfate	Daphnia magna (EC50)	48 hour/hours	6 mg/l
Daphnia magna (EC50)	48 hour/hours	31 mg/l	
Selenastrum capricornutum (EC50)	48 hour/hours	104.8 mg/l	
	96 hour/hours	1.31 mg/l	
Cyprinus carpio (LC50)	96 hour/hours	4.5 mg/l	



Lepomis macrochirus (LC50) 96 hour/hours 4.62 mg/l

Oncorhynchus mykiss (LC50)

Environmental precautions No known significant effects or critical hazards.

Products of degradation These products are carbon oxides (CO, CO₂) and water, sulfur oxides

(SO₂, SO₃ etc.). Some metallic oxides.

Toxicity of the products of The products of degradation are less toxic than the product itself.

biodegradation

Section 13 – Disposal Considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14 – Transport Information

Federally regulated

DOT CLASSIFICATION

Proper Shipping Name: CHEMICALS, N.O.S.

IMO/IMDG CLASSIFICATION

Proper Shipping Name: CHEMICALS, N.O.S.

TDG CLASSIFICATION

Proper Shipping Name: CHEMICALS, N.O.S.

ICAO/IATA CLASSIFICATION

Proper Shipping Name: CHEMICALS, N.O.S.

IATA classification: Not restricted.

Section 15 – Regulatory Information

United States

HCS Classification Toxic material



Irritating material

Target organ effects

U.S. Federal regulations :

TSCA 8(b) inventory: Listed

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Sodium Dodecyl Sulfate, Sodium Lauroyl Sarcosine

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Sodium Dodecyl Sulfate: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Sodium Lauroyl Sarcosine: Immediate (acute) health hazard,

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State regulations : New Jersey: Water; Sodium Dodecyl Sulfate

Canada

WHMIS (Canada) : Class D-2A: Material causing other toxic effects (Very toxic).

CEPA DSL/CEPA NDSL : CEPA DSL: Water; Sodium Dodecyl Sulfate, Sodium Lauroyl

Sarcosine

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

EU regulations

Risk phrases : This product is not classified according to EU legislation.

International regulations

International lists :

Australia (NICNAS): Water; Sodium Dodecyl Sulfate, Sodium Lauroyl Sarcosine

China: Sodium Dodecyl Sulfate, Sodium Lauroyl Sarcosine

Germany water class: Sodium Dodecyl Sulfate, Sodium Lauroyl Sarcosine

Japan (METI): Water; Sodium Dodecyl Sulfate, Sodium Lauroyl Sarcosine

Korea (TCCL): Water; Sodium Dodecyl Sulfate, Sodium Lauroyl Sarcosine

Philippines (RA6969): Water; Sodium Dodecyl Sulfate, Sodium Lauroyl Sarcosine

Section 16 – Other Information

This bulletin is for your guidance and is based upon information and tests believed to be reliable. Kurabo makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages thereto. The data are offered solely for your consideration, investigation, and verification. These suggestions should not be confused with state, municipal, or insurance requirements, or with national safety codes and constitute no warranty. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state, and local regulations.