



Safety Data Sheet

AutoGen, Inc.
84 October Hill Rd.
Holliston, MA 01746
774.233.3000

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

Section 1 – Product and Company Information

Product Name: Plant Lysis Solution
Product Number: PL-M1 or AG00121-PLM1

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

Section 2 - Hazards Identification

Pictogram



CAUTION! Handling care generally in keeping with safe laboratory practices is recommended.

Routes of Entry :

Inhalation.
Ingestion.

Potential Acute Health Effects :

Eyes: Acute effects of this product resulting from eye contact.
Skin: Acute effects of this product resulting from skin contact.
Inhalation: Acute effects of this product resulting from inhalation.
Ingestion: Acute effects of this product resulting from ingestion.

Potential Chronic Health Effects:

Carcinogenic Effects: This material is not known to cause cancer in animals or humans.



Medical Conditions Aggravated by Overexposure:

Repeated or prolonged exposure may aggravate medical condition.

Additional information See Toxicological Information (section 11)

HAZARD DESCRIPTION:

Harmful if swallowed or inhaled. Causes irritation to skin, eyes and respiratory tract.

NFPA RATING (0-4)

Fire hazard 1
Health 2
Reactivity 1

Section 3 – Composition/Information on Ingredients

| Component | CAS-NO | Weight |
|-----------------|-----------|--------|
| Water | 7732-18-5 | 88-92% |
| Tris | 77-86-1 | <1% |
| CTAB | 57-09-0 | <3% |
| EDTA | 6381-92-6 | <3% |
| Sodium Chloride | 7440-23-5 | 5-10% |

| <u>Chemical name</u> | <u>CAS #</u> |
|----------------------|--------------|
| Tris | 77-86-1 |
| EDTA | 6381-92-6 |
| CTAB | 57-09-0 |
| NaCl | 7647-14-5 |
| Water | |

Section 4- First Aid Measures

GENERAL INFORMATION

Immediately remove any clothing contaminated by the substance .Wash affected area with copious amounts of water for at least 15 minutes with soap. Speed in removing material from skin is extremely important. Use safety shower.

EYE CONTACT:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

SKIN CONTACT:



Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

INHALATION:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

INGESTION:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

Loosen tight clothing such as a collar, tie, belt or waistband.

Section 5- Fire Fighting Measures

FLAMMABILITY OF THE PRODUCT

Non-flammable.

AUTO-IGNITION TEMPERATURE

Not applicable.

FLASH POINTS

Not applicable.

FLAMMABLE LIMITS

Not applicable.

PRODUCTS OF COMBUSTION

Not available.

FIRE HAZARDS IN PRESENCE OF VARIOUS SUBSTANCE

Not applicable.

EXPLOSION HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES

Risks of explosion of the product in presence of static discharge: No.

Risks of explosion of the product in presence of mechanical impact: No.

FIRE FIGHTING MEDIA AND INSTRUCTIONS

Not applicable.

PROTECTIVE CLOTHING (FIRE)

Not applicable.

SPECIAL REMARKS ON FIRE HAZARDS

Not available.

SPECIAL REMARKS ON EXPLOSION HAZARDS

May emit toxic fumes under fire conditions.

Thermal decomposition may release toxic and/or hazardous gases.

(Hexadecyltrimethylammonium Bromide, EDTA di-Sodium Dihydrate)



Section 6 – Accidental Release Measures

SMALL SPILL AND LEAK

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

LARGE SPILL AND LEAK

Absorb with an inert material and put the spilled material in an appropriate waste disposal.

SPILL KIT INFORMATION

No specific spill kit required for this product.

Section 7 – Handling and Storage

HANDLING:

Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists.

Wash thoroughly after handling.

STORAGE:

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

Section 8 – Exposure controls/Personal Protection

ENGINEERING CONTROLS

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

PERSONAL PROTECTION

Eyes: Safety glasses.

Body: Lab coat.

Respiratory Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hands: Gloves.

Feet: Not applicable.

Personal Protection in Case of a Large Spill

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

EXPOSURE LIMITS

Tris (hydroxymethyl) aminomethane: Not available.

EDTA di-Sodium Dihydrate: Not available.

Hexadecyltrimethylammonium Bromide: Not available.

Sodium Chloride: Not available.

Water: Not available.



Section 9 – Physical and Chemical Properties

Odor: Not available.

Color: Colorless.

APPEARANCE:

Physical State and Appearance: Liquid.

Molecular Weight: Not applicable.

Molecular Formula: Not applicable.

pH: pH 8.0

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.

Specific Gravity: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Odor Threshold: Not available.

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

LogKow: Not available.

Solubility: Soluble in water.

Section 10 – Stability and Reactivity

STABILITY/REACTIVITY

The product is stable.

CONDITIONS OF INSTABILITY

Not available.

INCOMPATIBILITY WITH VARIOUS SUBSTANCE

Not available.

Section 11 – Toxicological Information

RTECS Number:

Tris (hydroxymethyl) aminomethane: TY2900000

EDTA di-Sodium Dihydrate: AH4410000

Hexadecyltrimethylammonium Bromide: BQ7875000

Sodium Chloride: VZ4725000

Water: ZC0110000

Toxicity(LD50: 5900mg/kg(oral, rat, as Tris)

30mg/kg(oral, mouse, as EDTA)

410mg/kg(oral, rat, as CTAB)

4000mg/kg(oral, mouse, as NaCl)

Chronic Effects on Humans: Not available.

Acute Effects on Humans: Not available.

Synergetic Products (Toxicologically): Not available.

Irritancy Draize Test: Not available.

Sensitization: Not available.

Carcinogenic Effects: This material is not known to cause cancer in animals or humans.

Toxicity to Reproductive System: Not available.

Teratogenic Effects: Embryo or Fetus: Stunted fetus, ipr-mouse TDLo=35mg/kg(as CTAB).



Mutagenic Effects: Fertility: Post-implantation mortality, ipr-mouse TDLo=35mg/kg(as CTAB).

Section 12 – Ecological Information

Ecotoxicity: 129-159mg/ml(fish, as EDTA)

BOD5 and COD: Not available.

Toxicity of the Products of Biodegradation: Not available

Section 13 – Disposal Considerations

EPA Waste Number: Not available.

Treatment

Material does not have an EPA Waste Number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.

Section 14 – Transport Information

DOT CLASSIFICATION

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

IMO/IMDGCLASSIFICATION

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

TDG CLASSIFICATION

Not available

ICAO/IATA CLASSIFICATION

CHEMICALS, N.O.S

Section 15 – Regulatory Information



United States

U.S. FEDERAL REGULATIONS

TSCA 8(b) inventory: Tris(hydroxymethyl)aminomethane; EDTA di-Sodium Dihydrate; Hexadecyltrimethylammonium Bromide; Sodium Chloride; Water

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: No products were found.

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

Hexadecyltrimethylammonium Bromide : 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 toxic substances: No products were found.

Canada

WHMIS(Canada): Class D-1B: Material causing immediate and serious toxic effects(Toxic).

Class D-2B: Material causing other toxic effects(Toxic).

CEPA DSL: Tris(hydroxymethyl)aminomethane; Hexadecyltrimethylammonium Bromide; Sodium Chloride; Water

This product has been classified in accordance with the hazard criteria of the Controlled Product

Regulations and the MSDS contains all required information.

International regulations

International lists : Australia(NICNAS): Tris(hydroxymethyl)aminomethane;

Hexadecyltrimethylammonium Bromide; Sodium Chloride; Water

JAPAN(MITI): Tris(hydroxymethyl)aminomethane;

Hexadecyltrimethylammonium Bromide; Sodium Chloride; Water

KOREA(TCCL): Tris(hydroxymethyl)aminomethane;

Hexadecyltrimethylammonium Bromide; Sodium Chloride; Water

Philippines(RA6969): Tris(hydroxymethyl)aminomethane;

Hexadecyltrimethylammonium Bromide; Sodium Chloride; Water



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