



Safety Data Sheet

AutoGen, Inc.
84 October Hill Rd.
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: Deproteinization Solution A
Product Number: PBR3 or ag00310-PBR3

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>
Phenol	108-95-2
Chloroform	67-66-3
Isoamyl alcohol	123-51-3
Acetic acid	64-19-7
Potassium acetate	127-08-2
Ethanol	64-17-5
Water	

Pictogram:



Classification of the substance or mixture with Hazard Statements:

Flammable liquids (Category 2), H225, Eye irritation (Category 2A), H319, Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 3), H331, Skin irritation (Category 2), H315, Eye irritation (Category 2A), H319, Carcinogenicity (Category 2), H351, Reproductive toxicity (Category 2), H361 Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336 Specific target organ toxicity - repeated exposure, Oral (Category 1), Liver, Kidney, H372, Short-term (acute) aquatic hazard (Category 3), H402



Signal Word:

Danger

Section 3 - Composition/Information on ingredients

<u>Component</u>	<u>CAS-NO</u>	<u>Weight</u>
Phenol	108-95-2	5
Chloroform	67-66-3	7
Isoamyl alcohol	123-51-3	<1
Acetic acid	64-19-7	17
Potassium acetate	127-08-2	10
Ethanol	64-17-5	41
Water	7732-18-5	19

DANGEROUS COMPONENTS:

<u>UN Number</u>	<u>Chemical</u>	<u>Class</u>
2821	Phenol (solution)	6.1, Toxic substances
1888	Chloroform	6.1, Toxic substances
1170	Ethanol	3, Flammable liquids

EMERGENCY OVERVIEW

WARNING! Flammable liquid and vapor. Vapor may cause flash fire
HARMFUL IF INHALED OR SWALLOWED.

CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

CAUSES DAMAGE TO THE FOLLOWING ORGANS: KIDNEYS, LIVER,
HEART, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.

SUSPECT CANCER HAZARD.

MAY CAUSE CANCER.

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

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

Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Risk of cancer depends on duration and level of exposure.

ROUTES OF ENTRY

Dermal contact. Eye contact. Inhalation. Ingestion.

POTENTIAL ACUTE HEALTH EFFECT (HAZARD DESCRIPTION)



Eyes : Irritating to eyes.

Skin : Irritating to skin.

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

Ingestion : Toxic if swallowed.

Carcinogenic effects : May cause cancer. Risk of cancer depends on duration and level of exposure.

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)

NEPA RATING (0-4)

Flammability 3

Health 2

Instability 0

Section 4- First Aid Measures

GENERAL INFORMATION

Immediately remove any clothing soiled by the substance .Wash affected area with copious amounts of water for at least 15 minutes and then soap and water. Speed in removing material from skin is extremely important. Use safety shower. Call physician let them know you have been exposed to phenol - a very corrosive and caustic solution.

EYE CONTACT:

Rinse opened eye for at least 15 minutes under running water. Then consult a physician.

SKIN CONTACT:

Immediately wash with water and soap and rinse thoroughly. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Call physician immediately.

INHALATION:

Supply fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call physician immediately.

SWALLOWING:

If conscious, drink water and induce vomiting immediately as directed by medical personnel. Never give an unconscious person anything to ingest.

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:

Product will burn

AUTO-IGNITION TEMPERATURE:

The lowest known value is 371 C (as ethanol)

FLASH POINTS:

Closed cup: 19.0 C (as ethanol)

SUITABLE EXTINGUISHING AGENTS:

- SMALL FIRE: Use DRY chemical powder.
- LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, auto ignition or explosion.

Section 6 – Accidental Release Measures

PERSON-RELATED SAFETY PRECAUTIONS:

Ensure adequate ventilation.

MEASURES FOR ENVIRONMENTAL PROTECTION:

Do not allow to enter sewers/surface or groundwater.

MEASURES FOR CLEANING/COLLECTING:

Adsorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Section 7 – Handling and Storage

HANDLING:

Keep away from heat, sparks and flame. Keep container closed. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Do not ingest. 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

. COMPONENTS WITH LIMIT VALUES THAN REQUIRING MONITORING AT THE WORK SPACE:

CAS NO. DESIGNATION OF MATERIALS % TYPE VALUE

108-95-2 phenol

ACGIH TLV 19 mg/m³, 5 ppm

NIOSH REL Short term value: C 60 mg/m³, C 15.6 ppm



OSHA PEL 19 mg/m³, 5 ppm

67-66-3 Chloroform
ACGIH TWA: 49 mg/m³
OSHA PEL (United States, 8/1997).
CELL: 240 mg/m³ Form: All forms
CELL: 50 ppm Form: All forms
OSHA PEL 1989 (United States, 3/1989).
TWA: 9.78 mg/m³ 8 hour/hours. Form: All forms
TWA: 2 ppm 8 hour/hours. Form: All forms

WORK SPACE:

Control the emission of the substance at its source. A system of local exhaust is recommended when handling at in house work space.

PROTECTION MATERIALS:

Use chemical safety goggles, protective gloves, protective boots or masks for organic gases.

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: Recommended: 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.

HYGIENE MEASURES:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, 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: have a pungent odor.

Color: Colorless to slightly yellow.

APPEARANCE:

Physical State and Appearance: Liquid. (slightly yellow)

Boiling/Condensation Point: Not determine



Melting/Freezing Point: Not determine

Section 10 – Stability and Reactivity

STABILITY/REACTIVITY:

Stable, Light sensitive.

INCOMPATIBILITY WITH VARIOUS SUBSTANCE:

Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis, calcium hypochlorite, magnesium, lead and zinc..

HAZARDOUS POLYMERIZATION:

Will not occur.

Section 11 – Toxicological Information

CAS NO. DESIGNATION OF MATERIALS:

108-95-2 Phenol

Acute toxicity: Oral (mouse) LD50, 300 mg/kg

Oral (rat) LD50, 414 mg/kg

Caustic effect on skin, mucous membranes and eye.

67-66-3 Chloroform

Acute toxicity: Oral (mouse) LD50, 36mg/kg

Oral (rat) LD50, 695 mg/kg

64-17-5 Ethanol

Acute toxicity : Oral (mouse) LD50, 3,450mg/kg

Section 12 – Ecological Information

HAZARDOUS FOR WATER:

Do not allow product to reach groundwater, water course or sewage system

TOXICITY TO FISH:

Toxic for water living.

CAS NO. DESIGNATION OF MATERIALS:

108-95-2 Phenol

LD 50 /96 hours, 10-100 mg/liter

Golden fish LC0, 8-10 mg/liter

LC50, 14-25 mg/liter

LC100, 28-30 mg/liter

TOXICITY OF THE PRODUCTS OF BIODEGRADATION:

The products of degradation are as toxic as the product itself.

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.

Section 14 – Transport Information

DOT CLASSIFICATION:

Proper Shipping Name: Flammable liquid, toxic, n.o.s.,
(Ethanol/phenol/chloroform solution)
Hazard Class : 3 sub risk 6.1
UN number :1992
Packing group: Packing group II

IMO/IMDG CLASSIFICATION:

Proper Shipping Name: Flammable liquid, toxic, n.o.s.,
(Ethanol/phenol/chloroform solution)
Hazard Class : 3 sub risk 6.1
UN number :1992
Packing group: Packing group II

ICAO/IATA CLASSIFICATION:

Proper Shipping Name: Flammable liquid, toxic, n.o.s.,
(Ethanol/phenol/chloroform solution)
Hazard Class : 3 sub risk 6.1
UN number :1992
Packing group: Packing group II

Section 15 – Regulatory Information

United States

HCS Classification : Toxic material
Irritating material
Carcinogen
Target organ effects

U.S. FEDERAL REGULATIONS

TSCA 8(b) inventory: PHENOL;CHLOROFORM; ETHANOL; .
TSCA 8(d) H and S data reporting: : PHENOL;1987
SARA 302/304/311/312 extremely hazardous substances: PHENOL;CHLOROFORM
SARA 302/304 emergency planning and notification: PHENOL;CHLOROFORM
SARA 302/304/311/312 hazardous chemicals: PHENOL;CHLOROFORM; ETHANOL
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
PHENOL: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard:
CHLOROFORM: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard:
SARA 313 toxic chemical notification and release reporting: PHENOL
Clean Water Act (CWA) 307: PHENOL;CHLOROFORM
Clean Water Act (CWA) 311:PHENOL;CHLOROFORM
Clean air act (CAA) 112 accidental release prevention: :CHLOROFORM.
Clean air act (CAA) 112 regulated flammable substances: No products were found.
Clean air act (CAA) 112 regulated toxic substances: CHLOROFORM



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 either 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.