

**Kit Components**

Product code	Description
<b>A1223</b>	<b>PureYield™ Plasmid Miniprep System</b>

## Components:

A160A	Elution Buffer (EBB)
A158	Endotoxin Removal Wash (ERB)
A157	Neutralization Solution (NSC)
A145	Cell Lysis Buffer (CLC)
A159	Column Wash Solution (CWC)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**1 Identification****Product identifier****Trade name:** Elution Buffer (EBB)**Article number:** A160A**Application of the substance / the mixture** For Laboratory Use**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification****Classification of the substance or mixture**

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

**Label elements****GHS label elements** Not applicable**Hazard pictograms** Not applicable**Signal word** Not applicable**Hazard statements** Not applicable**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable**Target Organ(s):** Not applicable or unknown**Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

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Trade name: **Elution Buffer (EBB)**

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### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

**Dangerous components:** Not applicable

**Additional information:** For the wording of the listed risk phrases refer to section 15.

### 4 First-aid measures

**Description of first aid measures**

**General information:** No special measures required.

**After inhalation:** If the patient feels unwell or is concerned, obtain medical advice.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If the patient feels unwell or is concerned, obtain medical advice.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

**Advice for firefighters** No special advice.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Not required.

**Environmental precautions:** Dilute with plenty of water.

**Methods and material for containment and cleaning up:**

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

**Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

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Trade name: Elution Buffer (EBB)

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## 7 Handling and storage

### Handling:

**Precautions for safe handling** No special measures required.

**Information about protection against explosions and fires:** The product is not flammable.

**Conditions for safe storage, including any incompatibilities**

### Storage:

**Requirements to be met by storerooms and receptacles:** Do not store below -20°C. Protected from light.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

### Control parameters

**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.

### Exposure controls

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

**Breathing equipment:** Not required.

**Protection of hands:**

Select the glove material considering penetration time, rate of diffusion and degradation time.

**Material of gloves**

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:** Not required.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance:

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

<b>pH-value at 20 °C (68 °F):</b>	8.5
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Trade name: Elution Buffer (EBB)

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**Change in condition**

**Melting point/Melting range:** 0 °C (32 °F)  
**Boiling point/Boiling range:** 100 °C (212 °F)  
**Flash point:** Not applicable.

**Flammability (solid, gaseous):** Not applicable.  
**Decomposition temperature:** Not determined.

**Ignition temperature:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Explosion limits:**  
**Lower:** Not determined.  
**Upper:** Not determined.  
**Vapor pressure:** Not determined.

**Density at 20 °C (68 °F):** 0.996 g/cm<sup>3</sup> (8.31162 lbs/gal)

**Relative density:** Not determined.

**Vapor density:** Not determined.

**Evaporation rate:** Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible.

**Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**

**Dynamic at 20 °C (68 °F):** 0.0952 mPas

**Kinematic:** Not determined.

**Solvent separation test**

**Water:** 100.0 %

**VOC content:** 0.00 %

**Solids content:** 0.2 %

**Other information** No further relevant information available.

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

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

**LD/LC50 values that are relevant for classification:** No data available

**Primary irritant effect:**

**on the skin:** No irritant effect.

**on the eye:** No irritating effect.

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**Sensitization:***In case of skin contact: not sensitising**In case of inhalation: not sensitising***Additional toxicological information:***The product is not subject to classification according to internally approved calculation methods for preparations:***Carcinogenic categories****IARC (International Agency for Research on Cancer)***None of the ingredients are listed.***NTP (National Toxicology Program)***None of the ingredients are listed.***OSHA-Ca (Occupational Safety & Health Administration)***None of the ingredients are listed.*

## \* 12 Ecological information

**Toxicity***Aquatic toxicity: Not harmful to the aquatic environment***Persistence and degradability***Not available**No further relevant information available.***Bioaccumulative potential***Not known**No further relevant information available.**Mobility in soil No further relevant information available.***Ecotoxicological effects:***Remark: Not available***Additional ecological information:****General notes:***Not available.**Not known to be hazardous to water.***Results of PBT and vPvB assessment***PBT: Not applicable.**vPvB: Not applicable.**Other adverse effects No further relevant information available.*

## \* 13 Disposal considerations

**Waste treatment methods****Recommendation:***Disposal should be in accordance with applicable regional, national and local laws and regulations.**Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.***Uncleaned packagings:***Recommendation: Disposal must be made according to official regulations.**Recommended cleansing agent: Water, if necessary with cleansing agents.*

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Trade name: *Elution Buffer (EBB)*

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## 14 Transport information

<b>UN-Number</b> <i>DOT, ADR, ADN, IMDG, IATA</i>	<i>Not hazardous for transportation</i> <i>Not applicable</i>
<b>UN proper shipping name</b> <i>DOT, ADR, ADN, IMDG, IATA</i>	<i>None</i> <i>Not applicable</i>
<b>Transport hazard class(es)</b> <i>DOT, ADR, ADN, IMDG, IATA</i> Class	<i>None</i>  <i>Not applicable</i>
<b>Packing group</b> <i>DOT, ADR, IMDG, IATA</i>	<i>None</i> <i>Not applicable</i>
<b>Environmental hazards:</b> <b>Marine pollutant:</b>	<i>No</i>
<b>Special precautions for user</b>	<i>Not applicable.</i>
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	<i>Not applicable.</i>
<b>UN "Model Regulation":</b>	<i>Not applicable</i>

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**  
*Sara*

**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) Inventory:**

*All components have the value ACTIVE.*

**Hazardous Air Pollutants**

*None of the ingredients are listed.*

**Proposition 65**

**Chemicals known to cause cancer:**

*None of the ingredients are listed.*

**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:**

*None of the ingredients are listed.*

**New Jersey Right-to-Know List:**

*None of the ingredients are listed.*

**Pennsylvania Right-to-Know List:**

*None of the ingredients are listed.*

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**Trade name: Elution Buffer (EBB)**

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### Cancerogenity categories

#### EPA (Environmental Protection Agency)

None of the ingredients are listed.

#### TLV (Threshold Limit Value)

None of the ingredients are listed.

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

None of the ingredients are listed.

**GHS label elements** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**Chemical safety assessment**

**Water hazard class:** Generally not hazardous for water.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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.

### Department issuing SDS:

Promega Corporation

Chemical Regulatory Department

2800 Woods Hollow Road

Madison, WI

Ph: (608)274-4330

chemicalregulatory@promega.com

### Contact:

**Date of preparation / last revision** 01/11/2024

### Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord relatif au transport international des marchandises dangereuses par route (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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

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

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit



## Safety Data Sheet acc. to OSHA HCS

Printing date 01/11/2024

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### 1 Identification

**Product identifier**

**Trade name:** Endotoxin Removal Wash (ERB)

**Article number:** A158

**Application of the substance / the mixture** For Laboratory Use

**Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)

**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### 2 Hazard(s) identification

**Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids 2

H225 Highly flammable liquid and vapor.



GHS07

Acute Toxicity - Oral 4

H302 Harmful if swallowed.

Acute Toxicity - Inhalation 4

H332 Harmful if inhaled.

Skin Irritation 2

H315 Causes skin irritation.

Eye Irritation 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure 3 H336 May cause drowsiness or dizziness.

**Label elements**

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

**Hazard pictograms**



GHS02



GHS07

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**Trade name: Endotoxin Removal Wash (ERB)**

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**Signal word** *Danger*

**Hazard-determining components of labeling:**

*guanidinium chloride*

*2-Propanol*

**Hazard statements**

*Highly flammable liquid and vapor.*

*Harmful if swallowed or if inhaled.*

*Causes skin irritation.*

*Causes serious eye irritation.*

*May cause drowsiness or dizziness.*

**Precautionary statements**

*Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*

*Ground/bond container and receiving equipment.*

*Use explosion-proof electrical/ventilating/lighting/equipment.*

*Use only non-sparking tools.*

*Take precautionary measures against static discharge.*

*Avoid breathing dust/fume/gas/mist/vapors/spray*

*Wash thoroughly after handling.*

*Do not eat, drink or smoke when using this product.*

*Use only outdoors or in a well-ventilated area.*

*Wear protective gloves/protective clothing/eye protection/face protection.*

*If swallowed: Call a poison center/doctor if you feel unwell.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*Rinse mouth.*

*Take off contaminated clothing and wash it before reuse.*

*If skin irritation occurs: Get medical advice/attention.*

*If eye irritation persists: Get medical advice/attention.*

*In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.*

*Store in a well-ventilated place. Keep container tightly closed.*

*Store in a well-ventilated place. Keep cool.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Classification system:**

**NFPA ratings (scale 0 - 4)**

*Health = 2*

*Fire = 3*

*Reactivity = 0*

**HMIS-ratings (scale 0 - 4)**

*Health = 2*

*Fire = 3*

*Reactivity = 0*

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):**

*Irritant*

*Flammable*

**Primary route(s) of entry:**

*Dermal*

*Inhalation*

*Oral*

**Target Organ(s):**

*May affect Nervous system (Neurotoxin)*

*May cause Kidney damage (Nephrotoxin)*

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**Trade name: Endotoxin Removal Wash (ERB)**

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*May affect Bones*

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

**Dangerous components:**

67-63-0	2-Propanol	25-50%
50-01-1	guanidinium chloride	25-50%

**Additional information:** For the wording of the listed risk phrases refer to section 15.

### 4 First-aid measures

**Description of first aid measures**

**General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out into the fresh air.

Take affected persons out of danger area and lay down.

**After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

Seek medical treatment in case of complaints.

Take affected persons into fresh air and keep quiet.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:** Seek immediate medical advice.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed**

Headache

Dizziness

Nausea

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

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**Trade name: Endotoxin Removal Wash (ERB)**

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**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

**Advice for firefighters** In the case of fire, wear respiratory protective equipment and chemical protective suit.

**Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Remove persons from danger area.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

Wear protective clothing.

**Environmental precautions:**

Prevent seepage into sewage system, workpits and cellars.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:**

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

Dispose contaminated material as waste according to Section 13.

Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 13 for disposal information.

## 7 Handling and storage

**Handling:**

**Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Use only in well ventilated areas.

**Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**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:** Not required.

**Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

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At this time, the remaining constituent has no known exposure limits.

**67-63-0 2-Propanol**

PEL	Long-term value: 980 mg/m <sup>3</sup> , 400 ppm
REL	Short-term value: 1225 mg/m <sup>3</sup> , 500 ppm Long-term value: 980 mg/m <sup>3</sup> , 400 ppm
TLV	Short-term value: 400 ppm Long-term value: 200 ppm BEI, A4

**Ingredients with biological limit values:**

**67-63-0 2-Propanol**

BEI	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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**Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.
- Do not eat or drink while working.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:** Not required.

**Material of gloves**

Gloves impermeable to the specific chemical substance.  
Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:**

Safety glasses  
Use equipment for eye protection tested and approved under government NIOSH standards.

**9 Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

**Appearance:**

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Alcohol-like

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Trade name: Endotoxin Removal Wash (ERB)

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<b>Odor threshold:</b>	Not determined.
<b>pH-value at 20 °C (68 °F):</b>	5.2
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	82 °C (179.6 °F)
<b>Flash point:</b>	13 °C (55.4 °F)
<b>Flammability (solid, gaseous):</b>	Highly flammable.
<b>Auto igniting:</b>	425 °C (797 °F)
<b>Decomposition temperature:</b>	Not determined.
<b>Ignition temperature:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard. Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
<b>Explosion limits:</b>	
<b>Lower:</b>	2 Vol %
<b>Upper:</b>	12 Vol %
<b>Vapor pressure at 20 °C (68 °F):</b>	43 hPa (32.3 mm Hg)
<b>Density at 20 °C (68 °F):</b>	1.0285 g/cm <sup>3</sup> (8.58283 lbs/gal)
<b>Relative density</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Solvent separation test</b>	
<b>Organic solvents:</b>	50.0 %
<b>Water:</b>	10.0 %
<b>VOC content:</b>	50.00 %
<b>Solids content:</b>	40.0 %
<b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** Reacts with strong acids and oxidizing agents.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** Oxidizing agents

**Hazardous decomposition products:** No dangerous decomposition products known.

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Trade name: Endotoxin Removal Wash (ERB)

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## 11 Toxicological information

### Information on toxicological effects

#### Acute toxicity:

#### LD/LC50 values that are relevant for classification:

#### 67-63-0 2-Propanol

Oral	LD50	4,570 mg/kg (Rat)
Dermal	LD50	13,400 mg/kg (Rat)
Inhalative	LC50/4 h	30 mg/l (Rat)

#### Primary irritant effect:

**on the skin:** Causes skin irritation.

**on the eye:** Irritating effect.

#### Sensitization:

In case of skin contact: not sensitising

In case of inhalation: not sensitising

#### Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: OECD test guideline 471, Ames test.

Harmful

Irritant

#### Carcinogenic categories

#### IARC (International Agency for Research on Cancer)

67-63-0	2-Propanol	3
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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.

## 12 Ecological information

### Toxicity

**Aquatic toxicity:** Not harmful to the aquatic environment

### Persistence and degradability

Not available

No further relevant information available.

### Bioaccumulative potential

Not known

No further relevant information available.

**Mobility in soil** No further relevant information available.

### Ecotoxicological effects:

**Remark:** Not available

### Additional ecological information:

**General notes:** No data available.

### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**Other adverse effects** No further relevant information available.

US

(Contd. on page 8)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

Trade name: Endotoxin Removal Wash (ERB)

(Contd. of page 7)

## 13 Disposal considerations

### Waste treatment methods

#### Recommendation:

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

#### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

### UN-Number

DOT, ADR, IMDG, IATA

UN1219

### UN proper shipping name

DOT

Isopropanol

ADR

1219 ISOPROPANOL (ISOPROPYL ALCOHOL)

IMDG, IATA

ISOPROPANOL (ISOPROPYL ALCOHOL)

### Transport hazard class(es)

DOT



Class

3 Flammable liquids

Label

3

ADR



Class

3 (F1) Flammable liquids

Label

3

IMDG, IATA



Class

3 Flammable liquids

Label

3

### Packing group

DOT, ADR, IMDG, IATA

II

### Environmental hazards:

Marine pollutant:

No

(Contd. on page 9)

-US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

Trade name: Endotoxin Removal Wash (ERB)

(Contd. of page 8)

<b>Special precautions for user</b>	Warning: Flammable liquids
<b>Hazard identification number (Kemler code):</b>	33
<b>EMS Number:</b>	F-E,S-D
<b>Stowage Category</b>	B

<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
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**Transport/Additional information:****ADR**

<b>Excepted quantities (EQ)</b>	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml

**IMDG**

<b>Limited quantities (LQ)</b>	1L
<b>Excepted quantities (EQ)</b>	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml

<b>UN "Model Regulation":</b>	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II
-------------------------------	--

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**  
Sara

**Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

**Section 313 (Specific toxic chemical listings):**

67-63-0 | 2-Propanol

**TSCA (Toxic Substances Control Act) Inventory:**

All components have the value ACTIVE.

**Hazardous Air Pollutants**

None of the ingredients are listed.

**Proposition 65****Chemicals known to cause cancer:**

None of the ingredients are listed.

**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:**

None of the ingredients are listed.

**New Jersey Right-to-Know List:**

67-63-0 | 2-Propanol

**Pennsylvania Right-to-Know List:**

67-63-0 | 2-Propanol

(Contd. on page 10)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Endotoxin Removal Wash (ERB)**

(Contd. of page 9)

### Cancerogenity categories

#### EPA (Environmental Protection Agency)

None of the ingredients are listed.

#### TLV (Threshold Limit Value)

67-63-0 2-Propanol

A4

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

None of the ingredients are listed.

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

**Signal word** Danger

#### Hazard-determining components of labeling:

guanidinium chloride

2-Propanol

#### Hazard statements

Highly flammable liquid and vapor.

Harmful if swallowed or if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause drowsiness or dizziness.

#### Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Rinse mouth.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Chemical safety assessment

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

US

(Contd. on page 11)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Endotoxin Removal Wash (ERB)**

(Contd. of page 10)

### 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.*

**Department issuing SDS:**

Promega Corporation  
 Chemical Regulatory Department  
 2800 Woods Hollow Road  
 Madison, WI  
 Ph: (608)274-4330  
 chemicalregulatory@promega.com

**Contact:**

**Date of preparation / last revision** 01/11/2024

**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord relatif au transport international des marchandises dangereuses par route (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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

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

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flammable Liquids 2: Flammable liquids – Category 2

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**1 Identification****Product identifier****Trade name:** Neutralization Solution (NSC)**Article number:** A157**Application of the substance / the mixture** For Laboratory Use**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification****Classification of the substance or mixture**

Acute Toxicity - Oral 4      H302 Harmful if swallowed.

Acute Toxicity - Inhalation 4      H332 Harmful if inhaled.

Skin Irritation 2      H315 Causes skin irritation.

Eye Irritation 2A      H319 Causes serious eye irritation.

**Label elements****GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).**Hazard pictograms**

GHS07

**Signal word** Warning**Hazard-determining components of labeling:**

guanidinium chloride

**Hazard statements**

Harmful if swallowed or if inhaled.

Causes skin irritation.

Causes serious eye irritation.

(Contd. on page 2)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Neutralization Solution (NSC)**

(Contd. of page 1)

**Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear eye protection / face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Rinse mouth.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 1

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 1

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Irritant**

**Primary route(s) of entry:**

Dermal

Inhalation

Oral

**Target Organ(s):**

May affect Nervous system (Neurotoxin)

May affect Bones

**Other hazards****Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

## \* 3 Composition/information on ingredients

**Chemical characterization: Mixtures****Description:**

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

**Dangerous components:**

50-01-1	guanidinium chloride	25-50%
67-63-0	2-Propanol	1-5%

**Additional information:** For the wording of the listed risk phrases refer to section 15.

US

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Neutralization Solution (NSC)**

(Contd. of page 2)

## 4 First-aid measures

### Description of first aid measures

#### General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

Seek medical treatment in case of complaints.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

#### After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

#### After swallowing:

Immediately call a doctor.

Seek immediate medical advice.

#### Information for doctor:

**Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

## 5 Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing agents:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

#### Special hazards arising from the substance or mixture

None known

No further relevant information available.

**Advice for firefighters** No special advice.

**Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Remove persons from danger area.

Wear protective clothing.

#### Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

#### Methods and material for containment and cleaning up:

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

Dispose contaminated material as waste according to Section 13.

Ensure adequate ventilation.

#### Reference to other sections

See Section 7 for information on safe handling.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

Trade name: Neutralization Solution (NSC)

(Contd. of page 3)

See Section 13 for disposal information.

## 7 Handling and storage

### Handling:

#### Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**Information about protection against explosions and fires:** The product is not flammable.

#### Conditions for safe storage, including any incompatibilities

### Storage:

**Requirements to be met by storerooms and receptacles:** Do not store below -20°C. Protected from light.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

### Control parameters

#### Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

#### 67-63-0 2-Propanol

PEL Long-term value: 980 mg/m<sup>3</sup>, 400 ppm

REL Short-term value: 1225 mg/m<sup>3</sup>, 500 ppm

Long-term value: 980 mg/m<sup>3</sup>, 400 ppm

TLV Short-term value: 400 ppm

Long-term value: 200 ppm

BEI, A4

#### Ingredients with biological limit values:

#### 67-63-0 2-Propanol

BEI 40 mg/L

Medium: urine

Time: end of shift at end of workweek

Parameter: Acetone (background, nonspecific)

**Additional information:** The lists that were valid during the creation were used as basis.

### Exposure controls

#### Personal protective equipment:

#### General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

#### Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

(Contd. on page 5)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Neutralization Solution (NSC)**

(Contd. of page 4)

**Protection of hands:** Not required.

**Material of gloves**

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:**

Safety glasses

Use equipment for eye protection tested and approved under government NIOSH standards.

## 9 Physical and chemical properties

**Information on basic physical and chemical properties**

**General Information**

**Appearance:**

<b>Form:</b>	Fluid
<b>Color:</b>	Blue
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

**pH-value at 20 °C (68 °F):** 3.8

**Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)
<b>Flash point:</b>	Not applicable.

<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Decomposition temperature:</b>	Not determined.

**Ignition temperature:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not determined.

**Density at 20 °C (68 °F):** >1.0871 g/cm<sup>3</sup> (>9.07185 lbs/gal)

**Relative density** Not determined.

**Vapor density** Not determined.

**Evaporation rate** Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible.

**Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**

**Dynamic:** Not determined.

**Kinematic:** Not determined.

(Contd. on page 6)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

Trade name: Neutralization Solution (NSC)

(Contd. of page 5)

**Solvent separation test**

<b>Organic solvents:</b>	≤2.5 %
<b>Water:</b>	70.3 %
<b>VOC content:</b>	≤2.47 %

<b>Solids content:</b>	22.7 %
------------------------	--------

<b>Other information</b>	No further relevant information available.
--------------------------	--

## 10 Stability and reactivity

**Reactivity** No further relevant information available.**Chemical stability****Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.**Possibility of hazardous reactions** No dangerous reactions known.**Conditions to avoid** No further relevant information available.**Incompatible materials:** Oxidizing agents**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Information on toxicological effects****Acute toxicity:****LD/LC50 values that are relevant for classification:****50-01-1 guanidinium chloride**

Oral	LD50	475 mg/kg (Rat)
Irritation of eyes	acute	500 mg (Rabbit) Severe Irritation

**Primary irritant effect:****on the skin:** Causes skin irritation.**on the eye:** Irritating effect.**Sensitization:**

In case of skin contact: not sensitising

In case of inhalation: not sensitising

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

OECD test guideline 471, Ames test.

Harmful

Irritant

**Carcinogenic categories****IARC (International Agency for Research on Cancer)**

67-63-0 | 2-Propanol

3

**NTP (National Toxicology Program)**

None of the ingredients are listed.

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Neutralization Solution (NSC)**

(Contd. of page 6)

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

## \* 12 Ecological information

### Toxicity

**Aquatic toxicity:** Not harmful to the aquatic environment

### Persistence and degradability

Not available

No further relevant information available.

### Bioaccumulative potential

Not known

No further relevant information available.

**Mobility in soil** No further relevant information available.

### Ecotoxicological effects:

**Remark:** Not available

### Additional ecological information:

**General notes:** No data available.

### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**Other adverse effects** No further relevant information available.

## \* 13 Disposal considerations

### Waste treatment methods

#### Recommendation:

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

#### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

## \* 14 Transport information

**UN-Number** Not hazardous for transportation

**DOT, ADR, IMDG, IATA** Not applicable

**UN proper shipping name** None

**DOT, ADR, ADN, IMDG, IATA** Not applicable

**Transport hazard class(es)** None

**DOT, ADR, ADN, IMDG, IATA**

**Class** Not applicable

**Packing group** None

**DOT, ADR, IMDG, IATA** Not applicable

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

Trade name: Neutralization Solution (NSC)

(Contd. of page 7)

**Environmental hazards:****Marine pollutant:** No**Special precautions for user** Not applicable.**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.**UN "Model Regulation":** Not applicable

## 15 Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara

**Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

**Section 313 (Specific toxic chemical listings):**

67-63-0 | 2-Propanol

**TSCA (Toxic Substances Control Act) Inventory:**

All components have the value ACTIVE.

**Hazardous Air Pollutants**

None of the ingredients are listed.

**Proposition 65****Chemicals known to cause cancer:**

None of the ingredients are listed.

**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:**

None of the ingredients are listed.

**New Jersey Right-to-Know List:**

67-63-0 | 2-Propanol

64-19-7 | acetic acid

**Pennsylvania Right-to-Know List:**

67-63-0 | 2-Propanol

**Carcinogenicity categories****EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value)**

67-63-0 | 2-Propanol

A4

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

None of the ingredients are listed.

**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).**Signal word** Warning

(Contd. on page 9)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Neutralization Solution (NSC)**

(Contd. of page 8)

**Hazard-determining components of labeling:**

guanidinium chloride

**Hazard statements**

Harmful if swallowed or if inhaled.

Causes skin irritation.

Causes serious eye irritation.

**Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear eye protection / face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Rinse mouth.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Chemical safety assessment**

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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.

**Department issuing SDS:**

Promega Corporation

Chemical Regulatory Department

2800 Woods Hollow Road

Madison, WI

Ph: (608)274-4330

chemicalregulatory@promega.com

**Contact:**

**Date of preparation / last revision** 01/11/2024

**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ADR: Accord relatif au transport international des marchandises dangereuses par route (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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

(Contd. on page 10)

**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Neutralization Solution (NSC)**

(Contd. of page 9)

*vPvB: very Persistent and very Bioaccumulative*  
*NIOSH: National Institute for Occupational Safety*  
*OSHA: Occupational Safety & Health*  
*TLV: Threshold Limit Value*  
*PEL: Permissible Exposure Limit*  
*REL: Recommended Exposure Limit*  
*BEI: Biological Exposure Limit*  
*Acute Toxicity - Oral 4: Acute toxicity – Category 4*  
*Skin Irritation 2: Skin corrosion/irritation – Category 2*  
*Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A*

US

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**1 Identification****Product identifier****Trade name:** Cell Lysis Buffer (CLC)**Article number:** A145**Application of the substance / the mixture** For Laboratory Use**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification****Classification of the substance or mixture**

GHS05 Corrosion

Skin Corrosion 1A H314 Causes severe skin burns and eye damage.

Eye Damage 1 H318 Causes serious eye damage.

**Label elements****GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).**Hazard pictograms**

GHS05

**Signal word** Danger**Hazard-determining components of labeling:**

sodium dodecyl sulphate

sodium hydroxide

**Hazard statements**

Causes severe skin burns and eye damage.

**Precautionary statements**

Do not breathe dusts or mists.

Wash thoroughly after handling.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Cell Lysis Buffer (CLC)**

(Contd. of page 1)

*Wear protective gloves/protective clothing/eye protection/face protection.*

*If swallowed: Rinse mouth. Do NOT induce vomiting.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

*Immediately call a poison center/doctor.*

*Wash contaminated clothing before reuse.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Classification system:**

**NFPA ratings (scale 0 - 4)**

Health = 3

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = \*3

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):**

Toxic

Highly Toxic

Corrosive

**Primary route(s) of entry:**

Dermal

Inhalation

**Target Organ(s):** Not applicable or unknown

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

### \* 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

*The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.*

**Dangerous components:**

151-21-3	sodium dodecyl sulphate	5-10%
1310-73-2	sodium hydroxide	1-5%

**Additional information:** For the wording of the listed risk phrases refer to section 15.

### \* 4 First-aid measures

**Description of first aid measures**

**General information:**

*Immediately remove any clothing soiled by the product.*

*Take affected persons out into the fresh air.*

*Seek medical treatment.*

**After inhalation:** *In case of unconsciousness place patient stably in side position for transportation.*

(Contd. on page 3)



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Reviewed on 12/29/2023

**Trade name: Cell Lysis Buffer (CLC)**

(Contd. of page 2)

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

**After eye contact:** Call a doctor immediately.

**After swallowing:**

Rinse out mouth and then drink plenty of water.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

## \* 5 Fire-fighting measures

**Extinguishing media****Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

**Advice for firefighters** In the case of fire, wear respiratory protective equipment and chemical protective suit.

**Protective equipment:** Mouth respiratory protective device.

## \* 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Remove persons from danger area.

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

**Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:**

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

Use neutralizing agent.

Dispose contaminated material as waste according to Section 13.

Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 13 for disposal information.

## \* 7 Handling and storage

**Handling:****Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Cell Lysis Buffer (CLC)**

(Contd. of page 3)

**Information about protection against explosions and fires:**

Keep respiratory protective device available.  
The product is not flammable.

**Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:** Do not store below -20°C. Protected from light.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

**Specific end use(s)** No further relevant information available.

## \* 8 Exposure controls/personal protection

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

**1310-73-2 sodium hydroxide**

PEL	Long-term value: 2 mg/m <sup>3</sup>
REL	Ceiling limit value: 2 mg/m <sup>3</sup>
TLV	Ceiling limit value: 2 mg/m <sup>3</sup>

**Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

Ensure that washing facilities are available at the work place.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**

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

**Material of gloves**

Chemical: sodium hydroxide, CAS number 1310-73-2

Glove Material: Nitrile

Glove thickness: 0.56 mm

Approx. Breakthrough Time: > 480 min.

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

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Reviewed on 12/29/2023

**Trade name: Cell Lysis Buffer (CLC)**

(Contd. of page 4)

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:**

Tightly sealed goggles

Use equipment for eye protection tested and approved under government NIOSH standards.

## 9 Physical and chemical properties

**Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Fluid
<b>Color:</b>	Blue
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

**pH-value at 20 °C (68 °F):** 13

**Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)
<b>Flash point:</b>	Not applicable.

**Flammability (solid, gaseous):** Not applicable.

**Decomposition temperature:** Not determined.

**Ignition temperature:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not determined.

**Density at 20 °C (68 °F):** 1.025 g/cm<sup>3</sup> (8.55363 lbs/gal)

**Relative density** Not determined.

**Vapor density** Not determined.

**Evaporation rate** Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible.

**Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**

**Dynamic:** Not determined.

**Kinematic:** Not determined.

**Solvent separation test**

**Water:** 90.9 %

**VOC content:** 0.00 %

**Solids content:** 9.0 %

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# Safety Data Sheet

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**Trade name: Cell Lysis Buffer (CLC)**

(Contd. of page 5)

**Other information**

No further relevant information available.

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:** No data available

**Primary irritant effect:**

**on the skin:** Caustic effect on skin and mucous membranes.

**on the eye:**

Strong caustic effect.

Causes serious eye damage.

**Sensitization:**

In case of skin contact: not sensitising

In case of inhalation: not sensitising

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

OECD test guideline 471, Ames test.

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

**NTP (National Toxicology Program)**

None of the ingredients are listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

## 12 Ecological information

**Toxicity**

**Aquatic toxicity:** Not harmful to the aquatic environment

**Persistence and degradability**

Not available

No further relevant information available.

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# Safety Data Sheet

acc. to OSHA HCS

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Trade name: Cell Lysis Buffer (CLC)

(Contd. of page 6)

**Bioaccumulative potential**

Not known

No further relevant information available.

**Mobility in soil** No further relevant information available.**Ecotoxicological effects:****Remark:** Not available**Additional ecological information:****General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

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

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even small quantities leak into the ground.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects** No further relevant information available.\* **13 Disposal considerations****Waste treatment methods****Recommendation:**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agent:** Water, if necessary with cleansing agents.\* **14 Transport information**

<b>UN-Number</b> <b>DOT, ADR, IMDG, IATA</b>	Not hazardous for transportation Not applicable
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<b>UN proper shipping name</b> <b>DOT, ADR, ADN, IMDG, IATA</b>	Not applicable
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<b>Transport hazard class(es)</b> <b>DOT, ADR, ADN, IMDG, IATA</b> Class	Not applicable
--	----------------

<b>Packing group</b> <b>DOT, ADR, IMDG, IATA</b>	Not applicable
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<b>Environmental hazards:</b> <b>Marine pollutant:</b>	No
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<b>Special precautions for user</b>	Not applicable.
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<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
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Reviewed on 12/29/2023

Trade name: Cell Lysis Buffer (CLC)

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UN "Model Regulation": Not applicable

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**  
Sara

**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) Inventory:**

All components have the value ACTIVE.

**Hazardous Air Pollutants**

None of the ingredients are listed.

**Proposition 65**

**Chemicals known to cause cancer:**

None of the ingredients are listed.

**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:**

None of the ingredients are listed.

**New Jersey Right-to-Know List:**

1310-73-2 sodium hydroxide

**Pennsylvania Right-to-Know List:**

1310-73-2 sodium hydroxide

**Carcinogenicity categories**

**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value)**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

**Signal word** Danger

**Hazard-determining components of labeling:**

sodium dodecyl sulphate

sodium hydroxide

**Hazard statements**

Causes severe skin burns and eye damage.

**Precautionary statements**

Do not breathe dusts or mists.

Wash thoroughly after handling.

(Contd. on page 9)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 12/29/2023

**Trade name: Cell Lysis Buffer (CLC)**

(Contd. of page 8)

*Wear protective gloves/protective clothing/eye protection/face protection.*

*If swallowed: Rinse mouth. Do NOT induce vomiting.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

*Immediately call a poison center/doctor.*

*Wash contaminated clothing before reuse.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Chemical safety assessment**

**Water hazard class:** *Water hazard class 2 (Self-assessment): hazardous for water.*

**Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

## 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.*

**Department issuing SDS:**

*Promega Corporation*

*Chemical Regulatory Department*

*2800 Woods Hollow Road*

*Madison, WI*

*Ph: (608)274-4330*

*chemicalregulatory@promega.com*

**Contact:**

**Date of preparation / last revision** 01/11/2024

**Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord relatif au transport international des marchandises dangereuses par route (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*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*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*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Skin Corrosion 1A: Skin corrosion/irritation – Category 1A*

*Eye Damage 1: Serious eye damage/eye irritation – Category 1*





## Safety Data Sheet acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 10/25/2023

### 1 Identification

**Product identifier**

**Trade name:** Column Wash Solution (CWC)

**Article number:** A159

**Application of the substance / the mixture** For Laboratory Use

**Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)

**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### 2 Hazard(s) identification

**Classification of the substance or mixture**

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

**Label elements**

**GHS label elements** Not applicable

**Hazard pictograms** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**Classification system:**

**NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable

**Target Organ(s):** Not applicable or unknown

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

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(Contd. on page 2)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 10/25/2023

**Trade name: Column Wash Solution (CWC)**

(Contd. of page 1)

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

**Dangerous components:** Not applicable

**Additional information:** For the wording of the listed risk phrases refer to section 15.

### 4 First-aid measures

**Description of first aid measures**

**General information:** No special measures required.

**After inhalation:** If the patient feels unwell or is concerned, obtain medical advice.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If the patient feels unwell or is concerned, obtain medical advice.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

**Advice for firefighters** No special advice.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Not required.

**Environmental precautions:** Dilute with plenty of water.

**Methods and material for containment and cleaning up:**

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

**Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

US

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 10/25/2023

Trade name: Column Wash Solution (CWC)

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## 7 Handling and storage

### Handling:

**Precautions for safe handling** No special measures required.

**Information about protection against explosions and fires:** The product is not flammable.

**Conditions for safe storage, including any incompatibilities**

### Storage:

**Requirements to be met by storerooms and receptacles:** Do not store below -20°C. Protected from light.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

### Control parameters

**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.

### Exposure controls

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

**Breathing equipment:** Not required.

**Protection of hands:**

Select the glove material considering penetration time, rate of diffusion and degradation time.

**Material of gloves**

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:** Not required.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance:

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

<b>pH-value at 20 °C (68 °F):</b>	8.2
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(Contd. on page 4)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 10/25/2023

Trade name: Column Wash Solution (CWC)

(Contd. of page 3)

**Change in condition**

**Melting point/Melting range:** 0 °C (32 °F)  
**Boiling point/Boiling range:** 100 °C (212 °F)  
**Flash point:** Not applicable.

**Flammability (solid, gaseous):** Not applicable.  
**Decomposition temperature:** Not determined.

**Ignition temperature:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Explosion limits:**  
**Lower:** Not determined.  
**Upper:** Not determined.  
**Vapor pressure:** Not determined.

**Density at 20 °C (68 °F):** 0.991 g/cm<sup>3</sup> (8.2699 lbs/gal)

**Relative density:** Not determined.

**Vapor density:** Not determined.

**Evaporation rate:** Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible.

**Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**

**Dynamic at 20 °C (68 °F):** 0.0952 mPas

**Kinematic:** Not determined.

**Solvent separation test**

**Water:** 98.0 %

**VOC content:** 0.00 %

**Solids content:** 2.0 %

**Other information** No further relevant information available.

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

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

**LD/LC50 values that are relevant for classification:** No data available

**Primary irritant effect:**

**on the skin:** No irritant effect.

**on the eye:** No irritating effect.

(Contd. on page 5)

# Safety Data Sheet

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Printing date 01/11/2024

Reviewed on 10/25/2023

**Trade name: Column Wash Solution (CWC)**

(Contd. of page 4)

**Sensitization:***In case of skin contact: not sensitising**In case of inhalation: not sensitising***Additional toxicological information:***The product is not subject to classification according to internally approved calculation methods for preparations:***Carcinogenic categories****IARC (International Agency for Research on Cancer)***None of the ingredients are listed.***NTP (National Toxicology Program)***None of the ingredients are listed.***OSHA-Ca (Occupational Safety & Health Administration)***None of the ingredients are listed.*

## \* 12 Ecological information

**Toxicity***Aquatic toxicity: Not harmful to the aquatic environment***Persistence and degradability***Not available**No further relevant information available.***Bioaccumulative potential***Not known**No further relevant information available.**Mobility in soil No further relevant information available.***Ecotoxicological effects:***Remark: Not available***Additional ecological information:****General notes:***Not available.**Not known to be hazardous to water.***Results of PBT and vPvB assessment***PBT: Not applicable.**vPvB: Not applicable.**Other adverse effects No further relevant information available.*

## \* 13 Disposal considerations

**Waste treatment methods****Recommendation:***Disposal should be in accordance with applicable regional, national and local laws and regulations.**Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.***Uncleaned packagings:***Recommendation: Disposal must be made according to official regulations.**Recommended cleansing agent: Water, if necessary with cleansing agents.*

US

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 10/25/2023

Trade name: Column Wash Solution (CWC)

(Contd. of page 5)

## 14 Transport information

<b>UN-Number</b> <b>DOT, ADR, ADN, IMDG, IATA</b>	Not hazardous for transportation Not applicable
<b>UN proper shipping name</b> <b>DOT, ADR, ADN, IMDG, IATA</b>	None Not applicable
<b>Transport hazard class(es)</b> <b>DOT, ADR, ADN, IMDG, IATA</b> Class	None Not applicable
<b>Packing group</b> <b>DOT, ADR, IMDG, IATA</b>	None Not applicable
<b>Environmental hazards:</b> <b>Marine pollutant:</b>	No
<b>Special precautions for user</b>	Not applicable.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
<b>UN "Model Regulation":</b>	Not applicable

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**  
Sara

**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) Inventory:**

All components have the value ACTIVE.

**Hazardous Air Pollutants**

None of the ingredients are listed.

**Proposition 65**

**Chemicals known to cause cancer:**

None of the ingredients are listed.

**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:**

None of the ingredients are listed.

**New Jersey Right-to-Know List:**

None of the ingredients are listed.

**Pennsylvania Right-to-Know List:**

None of the ingredients are listed.

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 10/25/2023

**Trade name: Column Wash Solution (CWC)**

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### Carcinogenicity categories

#### EPA (Environmental Protection Agency)

None of the ingredients are listed.

#### TLV (Threshold Limit Value)

None of the ingredients are listed.

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

None of the ingredients are listed.

**GHS label elements** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**Chemical safety assessment**

**Water hazard class:** Generally not hazardous for water.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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.

### Department issuing SDS:

Promega Corporation

Chemical Regulatory Department

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Madison, WI

Ph: (608)274-4330

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### Contact:

**Date of preparation / last revision** 01/11/2024

### Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ADR: Accord relatif au transport international des marchandises dangereuses par route (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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

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

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit