

07/04/2016

### Kit Components

| Product code | Description  |
|--------------|--|
| <b>A6732</b> | <b>PureYield™ Plasmid Maxiprep Start-Up Kit<br/>Continental Euro</b> |

Components:

|       |  |
|-------|--|
| A2393 | PureYield™ Plasmid Maxiprep System, 25 preps |
|-------|--|



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

Printing date 07/04/2016

Reviewed on 06/27/2016

\* **1 Identification**

**Product identifier**

**Trade name:** PureYield™ Clearing Columns

**Article number:** A246

**Application of the substance / the mixture** Laboratory chemicals

**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: [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@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 substance is not classified as hazardous according to the Globally Harmonized System (GHS).

**Label elements**

**GHS label elements** Void

**Hazard pictograms** Void

**Signal word** Void

**Hazard statements** Void

**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**

This mixture has not been tested to determine the overall health hazard; therefore in accordance with 29CFR1910.1200, the data reported above pertains to the hazardous ingredients of this mixture.

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

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vPvB: Not applicable.

### 3 Composition/information on ingredients

Chemical characterization: Substances

CAS No. Description

Article

### 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**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**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:** No special measures required.**Methods and material for containment and cleaning up:** Pick up mechanically.**Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

### 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:** No special requirements.**Information about storage in one common storage facility:** Not required.

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**Trade name:** PureYield™ Clearing Columns

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**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:** Not required.

**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:** Not required.

#### Material of gloves

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.

**Eye protection:** Not required.

## \* 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance:

|                        |                 |
|------------------------|-----------------|
| <b>Form:</b>           | Solid           |
| <b>Color:</b>          | Colorless       |
| <b>Odor:</b>           | Not determined  |
| <b>Odor threshold:</b> | Not determined. |

**pH-value:** Not applicable.

#### Change in condition

|                                     |                 |
|-------------------------------------|-----------------|
| <b>Melting point/Melting range:</b> | Undetermined.   |
| <b>Boiling point/Boiling range:</b> | Undetermined.   |
| <b>Flash point:</b>                 | Not applicable. |

**Flammability (solid, gaseous):** Product is not flammable.

#### Ignition temperature:

**Decomposition temperature:** Not determined.

**Auto igniting:** Not determined.

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

#### Explosion limits:

**Lower:** Not determined.  
**Upper:** Not determined.

**Vapor pressure:** Not applicable.

**Density:** Not determined.

**Relative density** Not determined.

**Vapor density** Not applicable.

**Evaporation rate** Not applicable.

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**Trade name: PureYield™ Clearing Columns**

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**Solubility in / Miscibility with**

**Water:** Insoluble.  
**Partition coefficient (n-octanol/water):** Not determined.  
**Viscosity:**  
**Dynamic:** Not applicable.  
**Kinematic:** Not applicable.

**Organic solvents:** 0.0 %  
**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:** Irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The substance is not subject to classification.

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

Substance is not listed.

**NTP (National Toxicology Program)**

Substance is not listed.

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

Substance is not listed.

## \* 12 Ecological information

**Toxicity**

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

**Persistence and degradability** Not available

**Behavior in environmental systems:**

**Bioaccumulative potential** Not known

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

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**Trade name: PureYield™ Clearing Columns**

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**Ecotoxicological effects:****Remark:** Not available**Additional ecological information:****General notes:** Generally not hazardous for 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.

## \* 14 Transport information

|  |                                  |
|--|----------------------------------|
| <b>UN-Number</b>   | Not hazardous for transportation |
| <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void                             |
| <b>UN proper shipping name</b>   | None                             |
| <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void                             |
| <b>Transport hazard class(es)</b>  | None                             |
| <b>DOT, ADR, ADN, IMDG, IATA</b>   | Class                            |
| <b>Class</b>   | Void                             |
| <b>Packing group</b>   | None                             |
| <b>DOT, ADR, IMDG, IATA</b>  | Void                             |
| <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 MARPOL73/78 and the IBC Code</b> | Not applicable.                  |
| <b>UN "Model Regulation":</b>  | Void                             |

## \* 15 Regulatory information

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

Sara

|  |
|--|
| <b>Section 355 (extremely hazardous substances):</b> |
| Substance is not listed.                             |

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**Trade name: PureYield™ Clearing Columns**

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

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

**Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

**Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

**Chemicals known to cause developmental toxicity:**

Substance is not listed.

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

Substance is not listed.

**TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

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

Substance is not listed.

**GHS label elements** Void**Signal word** Void**Hazard statements** Void**National regulations:****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

Environmental Health and Safety Department

2800 Woods Hollow Road

Madison, WI

Ph: (608) 274-4330

**Date of preparation / last revision** 07/04/2016 / -**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 européen sur le transport 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

ACGIH: American Conference of Governmental Industrial Hygienists

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

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*NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**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***\* Data compared to the previous version altered.**

US

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

Printing date 07/04/2016

Reviewed on 06/27/2016

\* **1 Identification**

**Product identifier**

**Trade name:** Cell Resuspension Solution (CRA)

**Article number:** A711

**Application of the substance / the mixture** Laboratory chemicals

**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: [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@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** Void

**Hazard pictograms** Void

**Signal word** Void

**Hazard statements** Void

**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**

This mixture has not been tested to determine the overall health hazard; therefore in accordance with 29CFR1910.1200, the data reported above pertains to the hazardous ingredients of this mixture.

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

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# Safety Data Sheet

## acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/27/2016

**Trade name: Cell Resuspension Solution (CRA)**

**vPvB:** Not applicable.

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### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Promega Corp. trade secret.

**Dangerous components:** Void

**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

**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

**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.

### 7 Handling and storage

**Handling:**

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

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**Trade name: Cell Resuspension Solution (CRA)**

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**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:** *No special requirements.*

**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:** *Not required.*

**Material of gloves**

*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. |

**pH-value at 20 °C (68 °F):** 7.5

**Change in condition**

|                                     |                 |
|-------------------------------------|-----------------|
| <b>Melting point/Melting range:</b> | 0 °C (32 °F)    |
| <b>Boiling point/Boiling range:</b> | 100 °C (212 °F) |
| <b>Flash point:</b>                 | Not applicable. |

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

**Ignition temperature:**

**Decomposition temperature:** *Not determined.*

**Auto igniting:** *Product is not selfigniting.*

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

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/27/2016

**Trade name: Cell Resuspension Solution (CRA)**

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**Explosion limits:****Lower:** Not determined.**Upper:** Not determined.**Vapor pressure:** Not determined.**Density at 20 °C (68 °F):** 0.998 g/cm<sup>3</sup> (8.328 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.**Organic solvents:** 0.0 %**Water:** 98.9 %**Solids content:** 1.1 %**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:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**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.

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**Trade name: Cell Resuspension Solution (CRA)**

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**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

**Behavior in environmental systems:**

**Bioaccumulative potential** Not known

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

**Ecotoxicological effects:**

**Remark:** Not available

**Additional ecological information:**

**General notes:** Generally not hazardous for 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.

## \* 14 Transport information

**UN-Number** Not hazardous for transportation

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

**UN proper shipping name** None

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

**Transport hazard class(es)** None

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

**Class** Void

**Packing group** None

**DOT, ADR, IMDG, IATA** Void

### Environmental hazards:

**Marine pollutant:** No

**Special precautions for user** Not applicable.

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Printing date 07/04/2016

Reviewed on 06/27/2016

**Trade name: Cell Resuspension Solution (CRA)**

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**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**      *Not applicable.*

**UN "Model Regulation":**      *Void*

## \* 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):**

*All 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.*

**Carcinogenicity categories**

**EPA (Environmental Protection Agency)**

*None of the ingredients are listed.*

**TLV (Threshold Limit Value established by ACGIH)**

*None of the ingredients are listed.*

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

*None of the ingredients are listed.*

**GHS label elements** *Void*

**Signal word** *Void*

**Hazard statements** *Void*

**National regulations:**

**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*

*Environmental Health and Safety Department*

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**acc. to OSHA HCS**

Printing date 07/04/2016

Reviewed on 06/27/2016

**Trade name: Cell Resuspension Solution (CRA)**

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2800 Woods Hollow Road

Madison, WI

Ph:(608)274-4330

**Date of preparation / last revision** 07/04/2016 / -**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 européen sur le transport 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**ACGIH: American Conference of Governmental Industrial Hygienists**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)**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***\* Data compared to the previous version altered.**



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

Printing date 07/04/2016

Reviewed on 07/03/2016

\* **1 Identification**

**Product identifier**

**Trade name:** Cell Lysis Solution (CLA)

**Article number:** A712

**Application of the substance / the mixture** Laboratory chemicals

**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: [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@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**



GHS08 Health hazard

STOT SE 2 H371 May cause damage to organs.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 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, GHS08

**Signal word** Warning

**Hazard-determining components of labeling:**

sodium dodecyl sulphate

**Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause damage to organs.

**Precautionary statements**

Wash thoroughly after handling.

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acc. to OSHA HCS

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**Trade name: Cell Lysis Solution (CLA)**

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

*Do not breathe dust/fume/gas/mist/vapors/spray.*

*Wear protective gloves.*

*Wear eye protection / face protection.*

*IF ON SKIN: Wash with plenty of water.*

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

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

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

*IF exposed or concerned: Call a POISON CENTER/doctor.*

*Take off contaminated clothing and wash it 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 = 2

Fire = 0

Reactivity = 0

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

Health = 2

Fire = 0

Reactivity = 0

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

Toxic

Irritant

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

Dermal

Oral

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

**Other hazards**

*This mixture has not been tested to determine the overall health hazard; therefore in accordance with 29CFR1910.1200, the data reported above pertains to the hazardous ingredients of this mixture.*

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

### \* 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

*The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Promega Corp. trade secret.*

**Dangerous components:**

|           |                         |        |
|-----------|-------------------------|--------|
| 151-21-3  | sodium dodecyl sulphate | <2.00% |
| 1310-73-2 | sodium hydroxide        | <1.00% |

**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 07/04/2016

Reviewed on 07/03/2016

Trade name: Cell Lysis Solution (CLA)

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## 4 First-aid measures

### Description of first aid measures

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

### After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

### After eye contact:

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

**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

**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

**Advice for firefighters** No special advice

## 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).

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.

**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:** No special requirements.

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

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

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# Safety Data Sheet

acc. to OSHA HCS

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Trade name: Cell Lysis Solution (CLA)

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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:

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 and skin.  
 Do not eat or drink while working.  
 Clean skin thoroughly immediately after handling the product.

#### 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:

Protective gloves  
 Select the glove material considering penetration time, rate of diffusion and degradation time.  
 It is recommended that the selected protective gloves be tested and approved under NIOSH or EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### Material of gloves

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>           | Not determined  |
| <b>Odor threshold:</b> | Not determined. |

**pH-value at 20 °C (68 °F):** 13

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# Safety Data Sheet

acc. to OSHA HCS

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Reviewed on 07/03/2016

Trade name: Cell Lysis Solution (CLA)

(Contd. of page 4)

**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.

**Ignition temperature:**

**Decomposition temperature:** Not determined.

**Auto igniting:** 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):** 1.00304 g/cm<sup>3</sup> (8.37 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.

**Organic solvents:** 0.0 %

**Water:** 98.2 %

**Solids content:** 1.8 %

**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:** Irritant to skin and mucous membranes.

**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

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# Safety Data Sheet

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**Trade name: Cell Lysis Solution (CLA)**

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**Additional toxicological information:**

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

**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**Behavior in environmental systems:****Bioaccumulative potential** Not known**Mobility in soil** No further relevant information available.**Ecotoxicological effects:****Remark:** Not available**Additional ecological information:****General notes:**

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

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

**UN-Number**

Not hazardous for transportation

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Trade name: Cell Lysis Solution (CLA)

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|                                  |      |
|----------------------------------|------|
| <b>DOT, ADR, ADN, IMDG, IATA</b> | Void |
|----------------------------------|------|

|                                |      |
|--------------------------------|------|
| <b>UN proper shipping name</b> | None |
|--------------------------------|------|

|                                  |      |
|----------------------------------|------|
| <b>DOT, ADR, ADN, IMDG, IATA</b> | Void |
|----------------------------------|------|

|                                   |      |
|-----------------------------------|------|
| <b>Transport hazard class(es)</b> | None |
|-----------------------------------|------|

|  |      |
|--|------|
| <b>DOT, ADR, ADN, IMDG, IATA Class</b> | Void |
|--|------|

|                      |      |
|----------------------|------|
| <b>Packing group</b> | None |
|----------------------|------|

|                             |      |
|-----------------------------|------|
| <b>DOT, ADR, IMDG, IATA</b> | Void |
|-----------------------------|------|

|                               |  |
|-------------------------------|--|
| <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 MARPOL73/78 and the IBC Code</b> | Not applicable. |
|--|-----------------|

|                               |      |
|-------------------------------|------|
| <b>UN "Model Regulation":</b> | Void |
|-------------------------------|------|

## 15 Regulatory information

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

|  |
|--|
| <b>Section 355 (extremely hazardous substances):</b> |
|--|

|                                     |
|-------------------------------------|
| None of the ingredients are listed. |
|-------------------------------------|

|  |
|--|
| <b>Section 313 (Specific toxic chemical listings):</b> |
|--|

|                                     |
|-------------------------------------|
| None of the ingredients are listed. |
|-------------------------------------|

|   |
|---|
| <b>TSCA (Toxic Substances Control Act):</b> |
|---|

|                             |
|-----------------------------|
| All ingredients are listed. |
|-----------------------------|

**Proposition 65**

|   |
|---|
| <b>Chemicals known to cause cancer:</b> |
|---|

|                                     |
|-------------------------------------|
| None of the ingredients are listed. |
|-------------------------------------|

|  |
|--|
| <b>Chemicals known to cause reproductive toxicity for females:</b> |
|--|

|                                     |
|-------------------------------------|
| None of the ingredients are listed. |
|-------------------------------------|

|  |
|--|
| <b>Chemicals known to cause reproductive toxicity for males:</b> |
|--|

|                                     |
|-------------------------------------|
| None of the ingredients are listed. |
|-------------------------------------|

|   |
|---|
| <b>Chemicals known to cause developmental toxicity:</b> |
|---|

|                                     |
|-------------------------------------|
| None of the ingredients are listed. |
|-------------------------------------|

**Carcinogenicity categories**

|  |
|--|
| <b>EPA (Environmental Protection Agency)</b> |
|--|

|                                     |
|-------------------------------------|
| None of the ingredients are listed. |
|-------------------------------------|

|   |
|---|
| <b>TLV (Threshold Limit Value established by ACGIH)</b> |
|---|

|                                     |
|-------------------------------------|
| None of the ingredients are listed. |
|-------------------------------------|

|   |
|---|
| <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b> |
|---|

|                                     |
|-------------------------------------|
| None of the ingredients are listed. |
|-------------------------------------|

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

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# Safety Data Sheet

acc. to OSHA HCS

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Reviewed on 07/03/2016

**Trade name: Cell Lysis Solution (CLA)**

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

sodium dodecyl sulphate

**Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause damage to organs.

**Precautionary statements**

Wash thoroughly after handling.

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

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves.

Wear eye protection / face protection.

IF ON SKIN: Wash with plenty of water.

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

Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

IF exposed or concerned: Call a POISON CENTER/doctor.

Take off contaminated clothing and wash it before reuse.

Store locked up.

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

**National regulations:****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

Environmental Health and Safety Department

2800 Woods Hollow Road

Madison, WI

Ph: (608)274-4330

**Date of preparation / last revision** 07/04/2016 / -**Abbreviations and acronyms:**

ADR: Accord européen sur le transport 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

ACGIH: American Conference of Governmental Industrial Hygienists

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)

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 &amp; Health

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US



**Safety Data Sheet**  
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**Trade name: Cell Lysis Solution (CLA)**

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*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*

*STOT SE 2: Specific target organ toxicity (single exposure) – Category 2*

**\* Data compared to the previous version altered.**

US

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

Printing date 07/04/2016

Reviewed on 07/03/2016

**1 Identification****Product identifier****Trade name:** Neutralization Solution (NSB)**Article number:** A148**Application of the substance / the mixture** Laboratory chemicals**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: [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@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 Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

**Label elements****GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).**Hazard pictograms** GHS05, GHS07**Signal word** Danger**Hazard-determining components of labeling:**guanidinium chloride  
acetic acid**Hazard statements**Harmful if swallowed.  
Causes severe skin burns and eye damage.**Precautionary statements**

Wash thoroughly after handling.

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US

# Safety Data Sheet

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Reviewed on 07/03/2016

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

(Contd. of page 1)

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

*Do not breathe dusts or mists.*

*Wear eye protection / face protection.*

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

*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.*

*IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.*

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

*Wash contaminated clothing before reuse.*

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

*Store locked up.*

*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

Oral

**Target Organ(s):**

*May affect Nervous system (Neurotoxin)*

*May cause Kidney damage (Nephrotoxin)*

*Risk of damage to eyes*

*Affects Teeth*

*May affect Bones*

**Other hazards**

*This mixture has not been tested to determine the overall health hazard; therefore in accordance with 29CFR1910.1200, the data reported above pertains to the hazardous ingredients of this mixture.*

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

### \* 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

*The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Promega Corp. trade secret.*

**Dangerous components:**

|         |                      |        |
|---------|----------------------|--------|
| 50-01-1 | guanidinium chloride | 25-50% |
| 64-19-7 | acetic acid          | 10-15% |

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

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 07/03/2016

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

(Contd. of page 2)

## 4 First-aid measures

### Description of first aid measures

#### General information:

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

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

#### After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

#### 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** None

**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

**Advice for firefighters** No special advice

## 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.

See Section 13 for disposal information.

## 7 Handling and storage

### Handling:

#### Precautions for safe handling

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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

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# Safety Data Sheet

acc. to OSHA HCS

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

(Contd. of page 3)

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

**Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**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.

### 64-19-7 acetic acid

PEL Long-term value: 25 mg/m<sup>3</sup>, 10 ppm

REL Short-term value: 37 mg/m<sup>3</sup>, 15 ppm

Long-term value: 25 mg/m<sup>3</sup>, 10 ppm

TLV Short-term value: 37 mg/m<sup>3</sup>, 15 ppm

Long-term value: 25 mg/m<sup>3</sup>, 10 ppm

**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.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

Clean skin thoroughly immediately after handling the product.

**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:**

Protective gloves

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

It is recommended that the selected protective gloves be tested and approved under NIOSH or EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Material of gloves**

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.

US

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# Safety Data Sheet

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Printing date 07/04/2016

Reviewed on 07/03/2016

Trade name: Neutralization Solution (NSB)

(Contd. of page 4)

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance:

|                 |                 |
|-----------------|-----------------|
| Form:           | Fluid           |
| Color:          | Colorless       |
| Odor:           | Not determined  |
| Odor threshold: | Not determined. |

pH-value at 20 °C (68 °F): 4.2

#### Change in condition

|                              |                 |
|------------------------------|-----------------|
| Melting point/Melting range: | Undetermined.   |
| Boiling point/Boiling range: | 100 °C (212 °F) |
| Flash point:                 | Not applicable. |

Flammability (solid, gaseous): Not applicable.

|                            |                 |
|----------------------------|-----------------|
| Ignition temperature:      | 485 °C (905 °F) |
| Decomposition temperature: | Not determined. |

Auto igniting: Product is not selfigniting.

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

#### Explosion limits:

|                                  |                   |
|----------------------------------|-------------------|
| Lower:                           | 4.0 Vol %         |
| Upper:                           | 17.0 Vol %        |
| Vapor pressure at 20 °C (68 °F): | 16 hPa (12 mm Hg) |

Density at 20 °C (68 °F): 1.10895 g/cm<sup>3</sup> (9.254 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. |

Organic solvents: 12.7 %

Water: 40.8 %

VOC content: 12.7 %

Solids content: 46.5 %

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: Reacts with strong acids and oxidizing agents.

Conditions to avoid: No further relevant information available.

Incompatible materials: Oxidizing agents

(Contd. on page 6)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 07/03/2016

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

(Contd. of page 5)

**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)<br>Severe Irritation |

#### Primary irritant effect:

**on the skin:** Irritant to skin and mucous membranes.

**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

#### Additional toxicological information:

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

Harmful

Irritant

#### 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

**Behavior in environmental systems:**

**Bioaccumulative potential** Not known

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

#### Ecotoxicological effects:

**Remark:** Not available

#### Additional ecological information:

#### General notes:

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

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

#### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

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

US  
(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 07/03/2016

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

(Contd. of page 6)

## 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>   | Not hazardous for transportation |
| <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void                             |
| <b>UN proper shipping name</b>   | None                             |
| <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void                             |
| <b>Transport hazard class(es)</b>  | None                             |
| <b>DOT, ADR, ADN, IMDG, IATA Class</b>   | Void                             |
| <b>Packing group</b>   | None                             |
| <b>DOT, ADR, IMDG, IATA</b>  | Void                             |
| <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 MARPOL73/78 and the IBC Code</b> | Not applicable.                  |
| <b>UN "Model Regulation":</b>  | Void                             |

## 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):

All ingredients are listed.

#### Proposition 65

#### Chemicals known to cause cancer:

None of the ingredients are listed.

(Contd. on page 8)

US



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 07/03/2016

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

(Contd. of page 7)

**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.

**Carcinogenicity categories**

**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value established by ACGIH)**

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:**

guanidinium chloride

acetic acid

**Hazard statements**

Harmful if swallowed.

Causes severe skin burns and eye damage.

**Precautionary statements**

Wash thoroughly after handling.

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

Do not breathe dusts or mists.

Wear eye protection / face protection.

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

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.

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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

Wash contaminated clothing before reuse.

If swallowed: Rinse mouth. Do NOT induce vomiting.

Store locked up.

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

**National regulations:**

**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

Environmental Health and Safety Department

2800 Woods Hollow Road

Madison, WI

(Contd. on page 9)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 07/03/2016

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

(Contd. of page 8)

Ph:(608)274-4330

**Date of preparation / last revision** 07/04/2016 / -**Abbreviations and acronyms:**

*ADR: Accord européen sur le transport 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*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*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*

*Acute Tox. 4: Acute toxicity – Category 4*

*Skin Corr. 1A: Skin corrosion/irritation – Category 1A*

*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*

**\* Data compared to the previous version altered.**

US

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

Printing date 07/04/2016

Reviewed on 06/27/2016

**1 Identification****Product identifier****Trade name:** PureYield Maxi Binding Columns -**Article number:** A248**Application of the substance / the mixture** Laboratory chemicals**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: [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@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 substance is not classified as hazardous according to the Globally Harmonized System (GHS).

**Label elements****GHS label elements** Void**Hazard pictograms** Void**Signal word** Void**Hazard statements** Void**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**

This mixture has not been tested to determine the overall health hazard; therefore in accordance with 29CFR1910.1200, the data reported above pertains to the hazardous ingredients of this mixture.

**Results of PBT and vPvB assessment****PBT:** Not applicable.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/27/2016

**Trade name: PureYield Maxi Binding Columns -**

**vPvB:** Not applicable.

(Contd. of page 1)

### 3 Composition/information on ingredients

**Chemical characterization: Substances**  
**CAS No. Description**  
 membrane

### 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

**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

**Advice for firefighters**

No special advice

No special advice

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

### 6 Accidental release measures

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

**Environmental precautions:** No special measures required.

**Methods and material for containment and cleaning up:** Pick up mechanically.

**Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

### 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.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/27/2016

Trade name: PureYield Maxi Binding Columns -

(Contd. of page 2)

*Conditions for safe storage, including any incompatibilities*

**Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**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:** Not required.

**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:** Not required.

**Material of gloves**

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.

**Eye protection:** Not required.

## 9 Physical and chemical properties

**Information on basic physical and chemical properties**

**General Information**

**Appearance:**

|                        |                 |
|------------------------|-----------------|
| <b>Form:</b>           | Solid           |
| <b>Color:</b>          | Colorless       |
| <b>Odor:</b>           | Not determined  |
| <b>Odor threshold:</b> | Not determined. |

**pH-value:** Not applicable.

**Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** Undetermined.

**Flash point:** Not applicable.

**Flammability (solid, gaseous):** Product is not flammable.

**Ignition temperature:**

**Decomposition temperature:** Not determined.

**Auto igniting:** Not determined.

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

**Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

**Vapor pressure:** Not applicable.

**Density:** Not determined.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/27/2016

Trade name: PureYield Maxi Binding Columns -

(Contd. of page 3)

|   |  |
|---|--|
| <b>Relative density</b>                         | Not determined.                            |
| <b>Vapor density</b>                            | Not applicable.                            |
| <b>Evaporation rate</b>                         | Not applicable.                            |
| <b>Solubility in / Miscibility with</b>         |  |
| <b>Water:</b>                                   | Insoluble.                                 |
| <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| <b>Viscosity:</b>                               |  |
| <b>Dynamic:</b>                                 | Not applicable.                            |
| <b>Kinematic:</b>                               | Not applicable.                            |
| <b>Organic solvents:</b>                        | 0.0 %                                      |
| <b>Solids content:</b>                          | 100.0 %                                    |
| <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** 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:** Irritating effect.  
**Sensitization:** No sensitizing effects known.  
**Additional toxicological information:**  
 When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.  
 The substance is not subject to classification.

### **Carcinogenic categories**

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

Substance is not listed.

#### **NTP (National Toxicology Program)**

Substance is not listed.

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

Substance is not listed.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/27/2016

Trade name: PureYield Maxi Binding Columns -

(Contd. of page 4)

## 12 Ecological information

### Toxicity

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

**Persistence and degradability** Not available

**Behavior in environmental systems:**

**Bioaccumulative potential** Not known

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

**Ecotoxicological effects:**

**Remark:** Not available

**Additional ecological information:**

**General notes:** Generally not hazardous for 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.

## 14 Transport information

|  |                                  |
|--|----------------------------------|
| <b>UN-Number</b>   | Not hazardous for transportation |
| <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void                             |
| <b>UN proper shipping name</b>   | None                             |
| <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void                             |
| <b>Transport hazard class(es)</b>  | None                             |
| <b>DOT, ADR, ADN, IMDG, IATA</b>   |                                  |
| <b>Class</b>   | Void                             |
| <b>Packing group</b>   | None                             |
| <b>DOT, ADR, IMDG, IATA</b>  | Void                             |
| <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 MARPOL73/78 and the IBC Code</b> | Not applicable.                  |
| <b>UN "Model Regulation":</b>  | Void                             |

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/27/2016

Trade name: PureYield Maxi Binding Columns -

(Contd. of page 5)

## 15 Regulatory information

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

*Sara*

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

*Substance is not listed.*

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

*Substance is not listed.*

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

*Substance is not listed.*

**Proposition 65**

**Chemicals known to cause cancer:**

*Substance is not listed.*

**Chemicals known to cause reproductive toxicity for females:**

*Substance is not listed.*

**Chemicals known to cause reproductive toxicity for males:**

*Substance is not listed.*

**Chemicals known to cause developmental toxicity:**

*Substance is not listed.*

**Carcinogenicity categories**

**EPA (Environmental Protection Agency)**

*Substance is not listed.*

**TLV (Threshold Limit Value established by ACGIH)**

*Substance is not listed.*

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

*Substance is not listed.*

**GHS label elements** Void

**Signal word** Void

**Hazard statements** Void

**National regulations:**

**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

Environmental Health and Safety Department

2800 Woods Hollow Road

Madison, WI

Ph: (608)274-4330

**Date of preparation / last revision** 07/04/2016 / -

(Contd. on page 7)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/27/2016

**Trade name: PureYield Maxi Binding Columns -**

(Contd. of page 6)

**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 européen sur le transport 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*

*ACGIH: American Conference of Governmental Industrial Hygienists*

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

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*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*

**\* Data compared to the previous version altered.**

US

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

Printing date 07/04/2016

Reviewed on 07/03/2016

**1 Identification**

**Product identifier**

**Trade name:** Endotoxin Removal Wash

**Article number:** A251

**Application of the substance / the mixture** Laboratory chemicals

**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: [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@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**



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 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.

Causes skin irritation.

Causes serious eye irritation.

**Precautionary statements**

Wash thoroughly after handling.

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

Wear protective gloves.

Wear eye protection / face protection.

(Contd. on page 2)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 07/03/2016

**Trade name: Endotoxin Removal Wash**

(Contd. of page 1)

**IF ON SKIN:** Wash with plenty of water.

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

**IF SWALLOWED:** Call a POISON CENTER/doctor if you feel unwell.

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

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

Rinse mouth.

Take off contaminated clothing and wash it before reuse.

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

Oral

**Target Organ(s):**

May affect Nervous system (Neurotoxin)

May affect Bones

**Other hazards**

This mixture has not been tested to determine the overall health hazard; therefore in accordance with 29CFR1910.1200, the data reported above pertains to the hazardous ingredients of this mixture.

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Promega Corp. trade secret.

**Dangerous components:**

|         |                      |        |
|---------|----------------------|--------|
| 50-01-1 | guanidinium chloride | 50-75% |
|---------|----------------------|--------|

**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:**

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

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

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 07/03/2016

**Trade name: Endotoxin Removal Wash**

(Contd. of page 2)

*If skin irritation continues, consult a doctor.*

**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** *None*

**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*

**Advice for firefighters** *No special advice*

## 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.*

*See Section 13 for disposal information.*

## 7 Handling and storage

**Handling:**

**Precautions for safe handling**

*Keep receptacles tightly sealed.*

*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:** *No special requirements.*

**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.*

US

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 07/03/2016

Trade name: Endotoxin Removal Wash

(Contd. of page 3)

## 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:

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 and skin.

Do not eat or drink while working.

Clean skin thoroughly immediately after handling the product.

#### 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:

Protective gloves

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

It is recommended that the selected protective gloves be tested and approved under NIOSH or EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### Material of gloves

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>           | Not determined  |
| <b>Odor threshold:</b> | Not determined. |

|                                   |     |
|-----------------------------------|-----|
| <b>pH-value at 20 °C (68 °F):</b> | 5.2 |
|-----------------------------------|-----|

#### 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. |
|---------------------------------------|-----------------|

#### Ignition temperature:

|                                   |                 |
|-----------------------------------|-----------------|
| <b>Decomposition temperature:</b> | Not determined. |
|-----------------------------------|-----------------|

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-US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 07/03/2016

Trade name: Endotoxin Removal Wash

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|   |   |
|---|---|
| <b>Auto igniting:</b>                           | Product is not selfigniting.                  |
| <b>Danger of explosion:</b>                     | Product does not present an explosion hazard. |
| <b>Explosion limits:</b>                        |   |
| <b>Lower:</b>                                   | Not determined.                               |
| <b>Upper:</b>                                   | Not determined.                               |
| <b>Vapor pressure:</b>                          | Not determined.                               |
| <b>Density at 20 °C (68 °F):</b>                | 1.2278 g/cm <sup>3</sup> (10.246 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>Organic solvents:</b>                        | 0.0 %   |
| <b>Water:</b>                                   | 33.0 %  |
| <b>Solids content:</b>                          | 67.0 %  |
| <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.

## 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)<br>Severe Irritation |

**Primary irritant effect:**

**on the skin:** Irritant to skin and mucous membranes.

**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

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

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# Safety Data Sheet

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Reviewed on 07/03/2016

**Trade name: Endotoxin Removal Wash**

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*Irritant*

**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*

**Behavior in environmental systems:**

**Bioaccumulative potential** *Not known*

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

**Ecotoxicological effects:**

**Remark:** *Not available*

**Additional ecological information:**

**General notes:**

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

*Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*

**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, ADN, IMDG, IATA** *Void*

**UN proper shipping name** *None*

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

**Transport hazard class(es)** *None*

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Reviewed on 07/03/2016

**Trade name: Endotoxin Removal Wash**

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

**Class** Void

**Packing group**

None

**DOT, ADR, IMDG, IATA**

Void

**Environmental hazards:**

**Marine pollutant:** No

**Special precautions for user** Not applicable.

**Transport in bulk according to Annex II of  
MARPOL73/78 and the IBC Code** Not applicable.

**UN "Model Regulation":** Void

## 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):**

All 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.

**Carcinogenicity categories**

**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value established by ACGIH)**

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** Warning

**Hazard-determining components of labeling:**

guanidinium chloride

**Hazard statements**

Harmful if swallowed.

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# Safety Data Sheet

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Reviewed on 07/03/2016

**Trade name: Endotoxin Removal Wash**

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*Causes skin irritation.*

*Causes serious eye irritation.*

**Precautionary statements**

*Wash thoroughly after handling.*

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

*Wear protective gloves.*

*Wear eye protection / face protection.*

*IF ON SKIN: Wash with plenty of water.*

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

*IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.*

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

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

*Rinse mouth.*

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

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

**National regulations:**

**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*

*Environmental Health and Safety Department*

*2800 Woods Hollow Road*

*Madison, WI*

*Ph: (608)274-4330*

**Date of preparation / last revision** *07/04/2016 / -*

**Abbreviations and acronyms:**

*ADR: Accord européen sur le transport 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*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*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)*

*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*

*Acute Tox. 4: Acute toxicity – Category 4*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*

**\* Data compared to the previous version altered.**

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

Printing date 07/04/2016

Reviewed on 06/27/2016

**1 Identification**

**Product identifier**

**Trade name:** Column Wash

**Article number:** A252

**Application of the substance / the mixture** Laboratory chemicals

**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: [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@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** Void

**Hazard pictograms** Void

**Signal word** Void

**Hazard statements** Void

**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**

This mixture has not been tested to determine the overall health hazard; therefore in accordance with 29CFR1910.1200, the data reported above pertains to the hazardous ingredients of this mixture.

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

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# Safety Data Sheet

acc. to OSHA HCS

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**Trade name:** Column Wash

**vPvB:** Not applicable.

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### 3 Composition/information on ingredients

**Chemical characterization:** Mixtures

**Description:**

The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Promega Corp. trade secret.

**Dangerous components:** Void

**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

**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

**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.

### 7 Handling and storage

**Handling:**

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

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/27/2016

**Trade name: Column Wash**

(Contd. of page 2)

**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:** *No special requirements.*

**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:** *Not required.*

**Material of gloves**

*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. |

**pH-value at 20 °C (68 °F):** 7.6

**Change in condition**

|                                     |                 |
|-------------------------------------|-----------------|
| <b>Melting point/Melting range:</b> | 0 °C (32 °F)    |
| <b>Boiling point/Boiling range:</b> | 100 °C (212 °F) |
| <b>Flash point:</b>                 | Not applicable. |

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

**Ignition temperature:**

**Decomposition temperature:** *Not determined.*

**Auto igniting:** *Product is not selfigniting.*

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

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

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Reviewed on 06/27/2016

Trade name: Column Wash

(Contd. of page 3)

**Explosion limits:****Lower:** Not determined.**Upper:** Not determined.**Vapor pressure:** Not determined.**Density:** Not determined.**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.**Organic solvents:** 0.0 %**Water:** 98.1 %**Solids content:** 1.9 %**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:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**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.

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# Safety Data Sheet

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**Trade name: Column Wash**

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**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

**Behavior in environmental systems:**

**Bioaccumulative potential** Not known

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

**Ecotoxicological effects:**

**Remark:** Not available

**Additional ecological information:**

**General notes:** Generally not hazardous for 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.

## \* 14 Transport information

**UN-Number** Not hazardous for transportation

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

**UN proper shipping name** None

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

**Transport hazard class(es)** None

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

**Class** Void

**Packing group** None

**DOT, ADR, IMDG, IATA** Void

### Environmental hazards:

**Marine pollutant:** No

**Special precautions for user** Not applicable.

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# Safety Data Sheet

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Reviewed on 06/27/2016

**Trade name:** Column Wash

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**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

**UN "Model Regulation":** Void

## \* 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):**

All 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.

**Carcinogenicity categories**

**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

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

None of the ingredients are listed.

**GHS label elements** Void

**Signal word** Void

**Hazard statements** Void

**National regulations:**

**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

Environmental Health and Safety Department

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

Printing date 07/04/2016

Reviewed on 06/27/2016

**Trade name: Column Wash**

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2800 Woods Hollow Road

Madison, WI

Ph:(608)274-4330

**Date of preparation / last revision** 07/04/2016 / -**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 européen sur le transport 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**ACGIH: American Conference of Governmental Industrial Hygienists**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)**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***\* Data compared to the previous version altered.**

US



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

Printing date 07/04/2016

Reviewed on 06/02/2016

**1 Identification**

**Product identifier**

**Trade name:** Nuclease-Free Water

**Article number:** P119

**CAS Number:**

7732-18-5

**EC number:**

231-791-2

**Application of the substance / the mixture** Laboratory chemicals

**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: [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@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 substance is not classified as hazardous according to the Globally Harmonized System (GHS).

**Label elements**

**GHS label elements** Void

**Hazard pictograms** Void

**Signal word** Void

**Hazard statements** Void

**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**

This mixture has not been tested to determine the overall health hazard; therefore in accordance with 29CFR1910.1200, the data reported above pertains to the hazardous ingredients of this mixture.

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/02/2016

**Trade name: Nuclease-Free Water**

(Contd. of page 1)

### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

## 3 Composition/information on ingredients

**Chemical characterization: Substances**

**CAS No. Description**

7732-18-5 water

**Identification number(s)**

**EC number:** 231-791-2

## 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

**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

**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.

## 7 Handling and storage

**Handling:**

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

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/02/2016

**Trade name: Nuclease-Free Water**

(Contd. of page 2)

**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:** No special requirements.

**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:** Not required.

**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:** Not required.

**Material of gloves**

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.

**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>           | Odorless        |
| <b>Odor threshold:</b> | Not determined. |

**Change in condition**

|                                     |                 |
|-------------------------------------|-----------------|
| <b>Melting point/Melting range:</b> | 0 °C (32 °F)    |
| <b>Boiling point/Boiling range:</b> | 100 °C (212 °F) |
| <b>Flash point:</b>                 | Not applicable. |

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

**Ignition temperature:**

**Decomposition temperature:** Not determined.

**Auto igniting:** Not determined.

**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):** 1 g/cm<sup>3</sup> (8.345 lbs/gal)

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/04/2016

Reviewed on 06/02/2016

**Trade name: Nuclease-Free Water**

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|   |  |
|---|--|
| <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 at 20 °C (68 °F):</b>                | .0952 mPas                                 |
| <b>Kinematic:</b>                               | Not determined.                            |
| <b>Organic solvents:</b>                        | 0.0 %                                      |
| <b>Water:</b>                                   | 100.0 %                                    |
| <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** 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:** Irritating effect.

**Sensitization:** No sensitizing effects known.

#### Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The substance is not subject to classification.

#### Carcinogenic categories

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

Substance is not listed.

##### NTP (National Toxicology Program)

Substance is not listed.

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

Substance is not listed.

## \* 12 Ecological information

### Toxicity

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

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**Persistence and degradability** Not available  
**Behavior in environmental systems:**  
**Bioaccumulative potential** Not known  
**Mobility in soil** No further relevant information available.  
**Ecotoxicological effects:**  
**Remark:** Not available  
**Additional ecological information:**  
**General notes:** Generally not hazardous for 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.

## \* 14 Transport information

|   |  |
|---|--|
| <b>UN-Number</b><br><b>DOT, ADR, ADN, IMDG, IATA</b>                                  | Not hazardous for transportation<br>Void |
| <b>UN proper shipping name</b><br><b>DOT, ADR, IMDG, IATA</b><br><b>ADN</b>           | None<br>Void                             |
| <b>Transport hazard class(es)</b><br><b>DOT, ADR, ADN, IMDG, IATA</b><br><b>Class</b> | None<br>Void                             |
| <b>Packing group</b><br><b>DOT, ADR, IMDG, IATA</b>                                   | None<br>Void                             |
| <b>Environmental hazards:</b><br><b>Marine pollutant:</b>                             | No                                       |
| <b>Special precautions for user</b>   | Not applicable.                          |
| <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>        | Not applicable.                          |
| <b>UN "Model Regulation":</b>   | Void                                     |

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## 15 Regulatory information

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

*Sara*

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

*Substance is not listed.*

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

*Substance is not listed.*

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

*Substance is listed.*

**Proposition 65**

**Chemicals known to cause cancer:**

*Substance is not listed.*

**Chemicals known to cause reproductive toxicity for females:**

*Substance is not listed.*

**Chemicals known to cause reproductive toxicity for males:**

*Substance is not listed.*

**Chemicals known to cause developmental toxicity:**

*Substance is not listed.*

**Carcinogenicity categories**

**EPA (Environmental Protection Agency)**

*Substance is not listed.*

**TLV (Threshold Limit Value established by ACGIH)**

*Substance is not listed.*

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

*Substance is not listed.*

**GHS label elements** Void

**Signal word** Void

**Hazard statements** Void

**National regulations:**

**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*

*Environmental Health and Safety Department*

*2800 Woods Hollow Road*

*Madison, WI*

*Ph: (608)274-4330*

**Date of preparation / last revision** 07/04/2016 / -

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**Abbreviations and acronyms:**

ADR: Accord européen sur le transport 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

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

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

**\* Data compared to the previous version altered.**

US