### Kit Components

<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A9284</strong></td>
<td>Wizard® SV Gel/PCR, 250 prep</td>
</tr>
</tbody>
</table>

**Components:**

<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A9282</td>
<td>Wizard® SV Gel and PCR Clean-Up System 250 preps</td>
</tr>
<tr>
<td>A2122</td>
<td>x-tracta™ Gel Extractor, 100 pack Article</td>
</tr>
</tbody>
</table>
**1 Identification**

**Product identifier**

**Trade name:** Membrane Binding Solution

**Article number:** A930

**Application of the substance / the mixture**

For research use only

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: ChemicalRegulatory@promega.com

**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

---

**2 Hazard(s) identification**

**Classification of the substance or mixture**

![Corrosion](image)

GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

![Acute Tox.](image)

GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

**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 thiocyanate

**Hazard statements**

Harmful if swallowed or if inhaled.
Causes severe skin burns and eye damage.
**Precautionary statements**

Do not breathe dusts or mists.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Immediately call a poison center/doctor.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:**

**NFPA ratings (scale 0 - 4):**
Health = 2
Fire = 0
Reactivity = 0

**HMIS-ratings (scale 0 - 4):**
Health = 2
Fire = 0
Reactivity = 0

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

**Primary route(s) of entry:**
Dermal
Inhalation
Oral

**Target Organ(s):**
May affect Nervous system (Neurotoxin)
May cause Kidney damage (Nephrotoxin)
Risk of damage to eyes
Affects Gastrointestinal System

**Other hazards**

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

*3 Composition/information on ingredients*

**Chemical characterization: Mixtures**

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

**Dangerous components:**

<table>
<thead>
<tr>
<th>Chemical code</th>
<th>Name</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>593-84-0</td>
<td>guanidinium thiocyanate</td>
<td></td>
</tr>
</tbody>
</table>

50-75%
**4 First-aid measures**

**Description of first aid measures**

**General information:**
Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Seek medical treatment.

**After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation. Seek medical treatment in case of complaints.

**After skin contact:**
Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

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

**After swallowing:**
Immediately call a doctor. Drink copious amounts of water and provide fresh air. Immediately call a doctor.
Seek immediate medical advice.

**Information for doctor:**
Most important symptoms and effects, both acute and delayed
None

No further relevant information available.

**5 Fire-fighting measures**

**Extinguishing media**

**Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**
None known

No further relevant information available.

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

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

**6 Accidental release measures**

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

Mount respiratory protective device.
Remove persons from danger area.
Wear protective equipment. Keep unprotected persons away.
Keep people at a distance and stay upwind.
Wear protective clothing.

**Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Trade name: Membrane Binding Solution

Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water. Do not allow to enter sewers/surface or ground water.

Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose contaminated material as waste according to Section 13. Ensure adequate ventilation. Keep away from water.

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. Open and handle receptacle with care. 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: Do not store together with acids.
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 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. 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

(Contd. on page 5)
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. 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:

Tightly sealed goggles

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

### Physical and chemical properties

#### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form:</td>
</tr>
<tr>
<td>Color:</td>
</tr>
<tr>
<td>Odor:</td>
</tr>
<tr>
<td>Odor threshold:</td>
</tr>
<tr>
<td><strong>pH-value at 20 °C (68 °F):</strong></td>
</tr>
</tbody>
</table>

#### Change in condition

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range:</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
</tr>
<tr>
<td>Flash point:</td>
</tr>
</tbody>
</table>

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

- **Water:** 41.9 %

- **VOC content:** 0.00 %

- **Solids content:** 58.1 %
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 oxidizing agents.
- Reacts with acids.

Conditions to avoid: No further relevant information available.

Incompatible materials:
- Exposure to strong acid will result in the generation of toxic gases
- Exposure to bleach may result in the generation of toxic gas

Hazardous decomposition products:
- Carbon monoxide and carbon dioxide
- Nitrogen oxides
- Sulfuric acid

11. Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50/LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>475 mg/kg (Rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;2,000 mg/kg (Rabbit)</td>
</tr>
</tbody>
</table>

Primary irritant effect:

on the skin: Caustic effect on skin and mucous membranes.
on the eye: Strong caustic effect.

Sensitization: Sensitization possible through inhalation.

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

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

Carcinogenic categories

IARC (International Agency for Research on Cancer)
None of the ingredients are listed.

NTP (National Toxicology Program)
None of the ingredients are listed.
**12 Ecological information**

**Toxicity**
Aquatic toxicity: Harmful to aquatic life with long lasting effects.

**Persistence and degradability**
Not available
No further relevant information available.

**Bioaccumulative potential**
Not known
No further relevant information available.

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

**Ecotoxicological effects:**
Remark: Harmful to fish

**Additional ecological information:**
General notes:
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Harmful to aquatic organisms

**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**

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT, ADR, IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1760</td>
<td>UN proper shipping name</td>
</tr>
<tr>
<td>Corrosive liquid, n.o.s. solution</td>
<td>DOT</td>
</tr>
<tr>
<td>1760 CORROSIVE LIQUID, N.O.S. solution</td>
<td>ADR</td>
</tr>
<tr>
<td>CORROSIVE LIQUID, N.O.S. solution</td>
<td>IMDG, IATA</td>
</tr>
</tbody>
</table>

(Contd. on page 8)
### Transport hazard class(es)

<table>
<thead>
<tr>
<th>DOT</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class</strong></td>
<td>8</td>
</tr>
<tr>
<td><strong>Label</strong></td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADR</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class</strong></td>
<td>8 (C9) Corrosive substances</td>
</tr>
<tr>
<td><strong>Label</strong></td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMDG, IATA</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class</strong></td>
<td>8 Corrosive substances</td>
</tr>
<tr>
<td><strong>Label</strong></td>
<td>8</td>
</tr>
</tbody>
</table>

### Environmental hazards:

<table>
<thead>
<tr>
<th>Marine pollutant:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special precautions for user</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warning: Corrosive substances</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Danger code (Kemler):</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EMS Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-A.S-B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stowage Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stowage Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW2 Clear of living quarters</td>
</tr>
</tbody>
</table>

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

<table>
<thead>
<tr>
<th>Code: E2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum net quantity per inner packaging: 30 ml</td>
</tr>
<tr>
<td>Maximum net quantity per outer packaging: 500 ml</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMDG-Limited quantities (LQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMDG-Excepted quantities (EQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code: E2</td>
</tr>
<tr>
<td>Maximum net quantity per inner packaging: 30 ml</td>
</tr>
<tr>
<td>Maximum net quantity per outer packaging: 500 ml</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADR-Excepted quantities (EQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code: E2</td>
</tr>
<tr>
<td>Maximum net quantity per inner packaging: 30 ml</td>
</tr>
<tr>
<td>Maximum net quantity per outer packaging: 500 ml</td>
</tr>
</tbody>
</table>
**Safety Data Sheet**  
**acc. to OSHA HCS**

**Trade name:** Membrane Binding Solution

**UN "Model Regulation":** UN 1760 CORROSIVE LIQUID, N.O.S. SOLUTION, 8, II

---

**15 Regulatory information**

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

**Sara**

**Section 355 (extremely hazardous substances):**  
None of the ingredients are listed.

**Section 313 (Specific toxic chemical listings):**  
None of the ingredients are listed.

**TSCA (Toxic Substances Control Act) Inventory:**  
All ingredients are listed.

**Hazardous Air Pollutants**  
None of the ingredients are listed.

**Proposition 65**

**Chemicals known to cause cancer:**  
None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**  
None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**  
None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**  
None of the ingredients are listed.

**Cancerogenity 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 thiocyanate

**Hazard statements**  
Harmful if swallowed or if inhaled.  
Causes severe skin burns and eye damage.

**Precautionary statements**  
Do not breathe dusts or mists.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If swallowed: Call a poison center/doctor if you feel unwell.  
If swallowed: Rinse mouth. Do NOT induce vomiting.
Trade name: Membrane Binding Solution

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

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 11/12/2019 /

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: Internation 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)
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. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

* Data compared to the previous version altered.
1 Identification

Product identifier
Trade name: Membrane Wash Solution

Article number: A929
Application of the substance / the mixture For research use only

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.
1-800-356-9526 or (608)-274-4330

Information department: SDS author: ChemicalRegulatory@promega.com
Emergency telephone number:
For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

Classification of the substance or mixture
The product is not classified as hazardous according to the Globally Harmonized System (GHS).

Label elements
GHS label elements Not applicable
Hazard pictograms Not applicable
Signal word Not applicable
Hazard statements Not applicable

Classification system:
NFPA ratings (scale 0 - 4)
Health = 0
Fire = 0
Reactivity = 0
HMIS-ratings (scale 0 - 4)
Health = 0
Fire = 0
Reactivity = 0

OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Not applicable
Target Organ(s): Not applicable or unknown

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Trade name: Membrane Wash Solution

3 Composition/information on ingredients

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

Dangerous components: Not applicable
Additional information: For the wording of the listed risk phrases refer to section 15.

4 First-aid measures

Description of first aid measures
General information: No special measures required.
After inhalation: If the patient feels unwell or is concerned, obtain medical advice.
After skin contact: Generally the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water.
After swallowing: If the patient feels unwell or is concerned, obtain medical advice.
Information for doctor:
Most important symptoms and effects, both acute and delayed
None
No further relevant information available.
Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents:
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
None known
No further relevant information available.
Advice for firefighters No special advice
Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
Environmental precautions: No special measures required.
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.
- **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:** Fluid
- **Color:** Colorless
- **Odor:** Not determined
- **Odor threshold:** Not determined.
- **pH-value at 20 °C (68 °F):** 5
- **Change in condition**
  - **Melting point/Melting range:** 0 °C (32 °F)
  - **Boiling point/Boiling range:** 100 °C (212 °F)
  - **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Decomposition temperature:** Not determined.
**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):** 0.99841 g/cm³ (8.33173 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**
- **Dynamic at 20 °C (68 °F):** 0.0952 mPas
- **Kinematic:** Not determined.

**Organic solvents:** 0.1 %
- **Water:** 99.5 %
- **VOC content:** 0.11 %

**Solids content:** 0.4 %

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

---

### 10 Stability and reactivity

**Reactivity**
No further relevant information available.

**Chemical stability**

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

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

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

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

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

---

### 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

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

**Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

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

**Carcinogenic categories**

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

None of the ingredients are listed.
### 12 Ecological information

**Toxicity**
- **Aquatic toxicity:** Not available
- **Persistence and degradability:** Not available
- **Bioaccumulative potential:** Not known
- **Mobility in soil:** Not available

**Ecotoxicological effects:**
- **Remark:** Not available

**Additional ecological information:**
- **General notes:** Not available.
- Not known to be hazardous to water.

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

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

### 13 Disposal considerations

**Waste treatment methods**

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

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

**Uncleaned packagings:**

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

### 14 Transport information

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<tr>
<th>UN-Number</th>
<th>DOT, ADR, ADN, IMDG, IATA</th>
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<tbody>
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<th>Transport hazard class(es)</th>
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<tbody>
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<td>None</td>
</tr>
</tbody>
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Trade name: Membrane Wash Solution

| DOT, ADR, ADN, IMDG, IATA Class | Not applicable |
| DOT, ADR, ADN, IMDG, IATA Packing group | None |
| 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": | Not applicable |

15 Regulatory information

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

**Sara**

Section 355 (extremely hazardous substances): None of the ingredients are listed.

Section 313 (Specific toxic chemical listings): None of the ingredients are listed.

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

All ingredients are listed.

**Hazardous Air Pollutants**

None of the ingredients are listed.

**Proposition 65**

Chemicals known to cause cancer: None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males: None of the ingredients are listed.

Chemicals known to cause developmental toxicity: None of the ingredients are listed.

**Cancerogenity 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** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable
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 11/12/2019 / -

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: Internation 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)
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

* Data compared to the previous version altered.
1 Identification

Product identifier
Trade name: Collection Tubes - Article,

Article number: A130
Application of the substance / the mixture For research use only

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.
1-800-356-9526 or (608)-274-4330

Information department: SDS author: ChemicalRegulatory@promega.com
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 Not applicable
Hazard pictograms Not applicable
Signal word Not applicable
Hazard statements Not applicable
Classification system:
NFPA ratings (scale 0 - 4)
Health = 0
Fire = 0
Reactivity = 0
HMIS-ratings (scale 0 - 4)
Health = 0
Fire = 0
Reactivity = 0

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

(Contd. on page 2)
Trade name: Collection Tubes - Article,

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
No further relevant information available.
Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents:
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
None known
No further relevant information available.
Advice for firefighters
No special advice
Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
Environmental precautions: Do not allow to enter sewers/ surface or ground water.
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.
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:
Form: Solid
Color: Colorless
Odor: Not determined
Odor threshold: 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.
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.
10 Stability and reactivity

Reactivity
No further relevant information available.

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

Possibility of hazardous reactions
No dangerous reactions known.

Conditions to avoid
No further relevant information available.

Incompatible materials
No further relevant information available.

Hazardous decomposition products
No dangerous decomposition products known.

11 Toxicological information

Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification: No data available

Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information: 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 available
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

| UN-Number | Not hazardous for transportation |
| DOT, ADR, ADN, IMDG, IATA | Not applicable |
| UN proper shipping name | None |
| DOT, ADR, ADN, IMDG, IATA | Not applicable |
| Transport hazard class(es) | None |
| DOT, ADR, ADN, IMDG, IATA | Not applicable |
| Class | Not applicable |
| Packing group | None |
| DOT, ADR, IMDG, IATA | Not applicable |
| 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" | Not applicable |
### 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) Inventory:** Substance is not listed.

**Hazardous Air Pollutants**

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.

**Cancerogenity 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** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

- **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** 11/12/2019 / -
Trade name: Collection Tubes - Article,

**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: Internation 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)

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

* Data compared to the previous version altered.*
1 Identification

Product identifier
Trade name: Wizard® SV Minicolumns - Article,

Article number: A129

Application of the substance / the mixture For research use only

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.
1-800-356-9526 or (608)-274-4330

Information department: SDS author: ChemicalRegulatory@promega.com
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 Not applicable
Hazard pictograms Not applicable
Signal word Not applicable
Hazard statements Not applicable

Classification system:
NFPA ratings (scale 0 - 4)
Health = 0
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)
Health = 0
Fire = 0
Reactivity = 0

OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Not applicable
Target Organ(s): Not applicable or unknown

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

(Contd. on page 2)
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
No further relevant information available.
Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents:
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
None known
No further relevant information available.
Advice for firefighters No special advice
Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
Environmental precautions: Do not allow to enter sewers/ surface or ground water.
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.
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:
Form: Solid
Color: Colorless
Odor: Not determined
Odor threshold: 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.

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.
Solubility in / Miscibility with Water: Insoluble.
Partition coefficient (n-octanol/water): Not determined.
Viscosity:
  Dynamic: Not applicable.
  Kinematic: Not applicable.
VOC content: 0.00 %
Solids content: 100.0 %
Other information: No further relevant information available.

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

11 Toxicological information
Information on toxicological effects:
  Acute toxicity:
  LD/LC50 values that are relevant for classification: No data available
  Primary irritant effect:
    on the skin: No irritant effect.
    on the eye: No irritating effect.
  Sensitization: No sensitizing effects known.
  Additional toxicological information: 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 available
  No further relevant information available.
Persistence and degradability
Not available
No further relevant information available.

Bioaccumulative potential
Not known
No further relevant information available.

Mobility in soil No further relevant information available.

Ecotoxicological effects:
Remark: Not available

Additional ecological information:
General notes: Not known to be hazardous to water.

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

Other adverse effects No further relevant information available.

13 Disposal considerations

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

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information

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<td><strong>Class</strong></td>
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<td><strong>Packing group</strong></td>
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<td><strong>Marine pollutant:</strong></td>
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<tr>
<td><strong>Special precautions for user</strong></td>
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<td><strong>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>UN &quot;Model Regulation&quot;:</strong></td>
<td>Not applicable</td>
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* 15 Regulatory information

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

Sara

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<th>Section 355 (extremely hazardous substances):</th>
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<th>TSCA (Toxic Substances Control Act) Inventory:</th>
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Hazardous Air Pollutants

<table>
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<tr>
<th>Substance is not listed.</th>
</tr>
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</table>

Proposition 65

<table>
<thead>
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<th>Chemicals known to cause cancer:</th>
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<tbody>
<tr>
<td>Substance is not listed.</td>
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<table>
<thead>
<tr>
<th>Chemicals known to cause reproductive toxicity for females:</th>
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</thead>
<tbody>
<tr>
<td>Substance is not listed.</td>
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</table>

<table>
<thead>
<tr>
<th>Chemicals known to cause reproductive toxicity for males:</th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>Chemicals known to cause developmental toxicity:</th>
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</thead>
<tbody>
<tr>
<td>Substance is not listed.</td>
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</table>

Cancerogenity categories

<table>
<thead>
<tr>
<th>EPA (Environmental Protection Agency)</th>
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</thead>
<tbody>
<tr>
<td>Substance is not listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TLV (Threshold Limit Value established by ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance is not listed.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NIOSH-Ca (National Institute for Occupational Safety and Health)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance is not listed.</td>
</tr>
</tbody>
</table>

GHS label elements Not applicable
Signal word Not applicable
Hazard statements Not applicable

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:
Prome ga Corporation
Environmental Health and Safety Department
2800 Woods Hollow Road
Madison, WI
Ph: (608) 274-4330

Date of preparation / last revision 11/12/2019 / -
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: Internatinal 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)

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

* Data compared to the previous version altered.
### 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** For research use only

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

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: ChemicalRegulatory@promega.com  
**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** Not applicable
- **Hazard pictograms** Not applicable
- **Signal word** Not applicable
- **Hazard statements** Not applicable

**Classification system:**

- **NFPA ratings (scale 0 - 4)**  
  Health = 0  
  Fire = 0  
  Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**  
  Health = 0  
  Fire = 0  
  Reactivity = 0

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

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

**Other hazards**

**Results of PBT and vPoB assessment**

**PBT:** Not applicable.

(Contd. on page 2)
Trade name: Nuclease-Free Water

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
No further relevant information available.
Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents:
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
None known
No further relevant information available.
Advice for firefighters No special advice
Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
Environmental precautions: Dilute with plenty of water.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Reference to other sections
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 13 for disposal information.
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.
*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:*
*Form:* Fluid
*Color:* Colorless
*Odor:* Odorless
*Odor threshold:* Not determined.

*Change in condition*

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

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

*Auto igniting:* Not determined.

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

*Explosion limits:*
*Lower:* Not determined.
*Upper:* Not determined.
Trade name: Nuclease-Free Water

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density at 20 °C (68 °F):</td>
<td>1 g/cm³ (8.345 lbs/gal)</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water:</td>
<td>Fully miscible.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
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<tr>
<td>Dynamic at 20 °C (68 °F):</td>
<td>0.0952 mPas</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Water:</td>
<td>100.0 %</td>
</tr>
<tr>
<td>VOC content:</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Solids content:</td>
<td>0.0 %</td>
</tr>
</tbody>
</table>

Other information: No further relevant information available.

10 Stability and reactivity

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

11 Toxicological information

Information on toxicological effects:
Acute toxicity:
LD/LC50 values that are relevant for classification: No data available.
Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information: 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 available
No further relevant information available.
Persistence and degradability
Not available
No further relevant information available.
Bioaccumulative potential
Not known
No further relevant information available.
Mobility in soil No further relevant information available.
Ecotoxicological effects:
Remark: Not available
Additional ecological information:
General notes:
Not available. Not known to be hazardous to water.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

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

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

14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>Not hazardous for transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UN proper shipping name</th>
<th>None</th>
</tr>
</thead>
<tbody>
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<td>DOT, ADR, ADN, IMDG, IATA</td>
<td>Not applicable</td>
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<tr>
<td>ADN</td>
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</table>

<table>
<thead>
<tr>
<th>Transport hazard class(es)</th>
<th>None</th>
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<tbody>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td>Class</td>
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</table>

<table>
<thead>
<tr>
<th>Packing group</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, ADR, IMDG, IATA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
**Environmental hazards:**

<table>
<thead>
<tr>
<th>Marine pollutant:</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special precautions for user</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;:</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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**15 Regulatory information**

<table>
<thead>
<tr>
<th>Safety, health and environmental regulations/legislation specific for the substance or mixture Sara</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section 355 (extremely hazardous substances):</strong></td>
</tr>
<tr>
<td>Substance is not listed.</td>
</tr>
<tr>
<td><strong>Section 313 (Specific toxic chemical listings):</strong></td>
</tr>
<tr>
<td>Substance is not listed.</td>
</tr>
<tr>
<td><strong>TSCA (Toxic Substances Control Act) Inventory:</strong></td>
</tr>
<tr>
<td>Substance is listed.</td>
</tr>
</tbody>
</table>

**Hazardous Air Pollutants**

<table>
<thead>
<tr>
<th>Substance is not listed.</th>
</tr>
</thead>
</table>

**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. |

**Cancerogenity 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**

<table>
<thead>
<tr>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word</td>
</tr>
<tr>
<td>Hazard statements</td>
</tr>
</tbody>
</table>

**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** 11/12/2019 / -

**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)  
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

* Data compared to the previous version altered.
1 Identification

Product identifier
Trade name: x-tracta™ Gel Extractor, 100 pack

Article number: A2122

Application of the substance / the mixture For research use only

Details of the supplier of the safety data sheet
Manufacturer/Supplier:

Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.
1-800-356-9526 or (608)-274-4330

Information department: SDS author: ChemicalRegulatory@promega.com

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 Not applicable
Hazard pictograms  Not applicable
Signal word Not applicable
Hazard statements Not applicable
Classification system:
NFPA ratings (scale 0 - 4)
Health = 0
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)
Health = 0
Fire = 0
Reactivity = 0

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

Target Organ(s): Not applicable or unknown

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

(Contd. on page 2)
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
No further relevant information available.
Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents:
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
None known
No further relevant information available.
Advice for firefighters
No special advice
Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Not required.
Environmental precautions: 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).
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.
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:
Form: Fluid
Color: Colorless
Odor: Not determined
Odor threshold: Not determined.

Change in condition
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.
Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.
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: Not determined.
Relative density: Not determined.
Vapor density: Not determined.
Evaporation rate: Not determined.
Trade name: x-tracta™ Gel Extractor, 100 pack

Solubility in / Miscibility with
Water: Not miscible or difficult to mix.
Partition coefficient (n-octanol/water): Not determined.
Viscosity:
  Dynamic: Not determined.
  Kinematic: Not determined.
VOC content: 0.00 %
Other information: No further relevant information available.

10 Stability and reactivity

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

11 Toxicological information

Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification: No data available
Primary irritant effect:
  on the skin: No irritant effect.
  on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information: 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 available
  No further relevant information available.
Persistence and degradability
  Not available
  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

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT, ADR, ADN, IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not hazardous for transportation</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UN proper shipping name</th>
<th>DOT, ADR, ADN, IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Not applicable</td>
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</table>

<table>
<thead>
<tr>
<th>Transport hazard class(es)</th>
<th>DOT, ADR, ADN, IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Not applicable</td>
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<table>
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<tr>
<th>Packing group</th>
<th>DOT, ADR, IMDG, IATA</th>
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<tbody>
<tr>
<td>None</td>
<td>Not applicable</td>
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</tbody>
</table>

<table>
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<tr>
<th>Environmental hazards: Marine pollutant:</th>
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</thead>
<tbody>
<tr>
<td>Not applicable.</td>
<td>No</td>
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</table>

<table>
<thead>
<tr>
<th>Special precautions for user</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Not applicable.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>UN &quot;Model Regulation&quot;:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>
### 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) Inventory:** Substance is not listed.
- **Hazardous Air Pollutants**
  - 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.

**Cancerogenity 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** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**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** 11/12/2019 / -
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NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
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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.