

## Kit components

Product DNA IQ™ Casework Sample Kit for Maxwell® 16

Product code AS1210

<b>Substance number</b>	<b>Description</b>	<b>Amount</b>	<b>Symbols</b>
A828	Elution Buffer	1	-
A826	Lysis Buffer	49	Xn
K104	Maxwell® LEV DNA IQ Resin	48	Xi
A937	Alcohol Wash	48	Xi



**Material Safety Data Sheet**  
acc. to ISO/DIS 11014

Printing date 06/14/2010

Reviewed on 06/14/2010

**1 Identification of substance**

**Trade name:** Lysis Buffer

**Article number:** A826

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

**Manufacturer/Supplier:**

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

**MSDS author:** Regulatory.Affairs@promega.com

**Emergency information:**

For Chemical Emergency ONLY (spill, leak, fire, exposure or accident), call CHEMTREC at 1-800-424-9300  
For call originating outside the United States dial 001-703-527-3887

**2 Composition/Data on components**

**Chemical characterization**

**Description:** Mixture of the substances listed below with nonhazardous additions.

**Dangerous components:**

593-84-0	guanidinium thiocyanate	50-75%
9002-93-1	Polyethylene glycol tert-octylphenyl ether	<2.00%
75621-03-3	3-[(3-Choalamidopropyl)dimethylammonio]propanesulfonic acid	<2.00%

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

**3 Hazards identification**

**Hazard description:**



Xn Harmful

**Information pertaining to particular dangers for man and environment:**

Harmful by inhalation, in contact with skin and if swallowed.

Irritating to eyes and skin.

**Classification system:**

The classification was made according to the latest editions of international substances lists, and is expanded upon by company and technical literature data.

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

Health = 2

Fire = 0

Reactivity = 0

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**Trade name: Lysis Buffer**

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**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

Inhalation

Oral

**Target Organ(s):**

May affect Nervous system (Neurotoxin)

May cause Kidney damage (Nephrotoxin)

Risk of damage to eyes

Affects Gastrointestinal System

**Additional information:** Product has been observed to have sensitizing effects.

**4 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.

Medical supervision for at least 48 hours.

**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:**

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

**After swallowing:**

Immediately call a doctor.

Seek immediate medical advice.

**5 Fire fighting measures**

**Suitable extinguishing agents:**

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

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

**6 Accidental release measures**

**Person-related safety precautions:** Wear protective clothing.

**Measures for environmental protection:**

Dilute with plenty of water.

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

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**Trade name: Lysis Buffer**

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**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
 Dispose contaminated material as waste according to item 13.  
 Ensure adequate ventilation.

## 7 Handling and storage

**Handling:**

**Information for safe handling:**

Keep receptacles tightly sealed.  
 Ensure good ventilation/exhaustion at the workplace.  
 Prevent formation of aerosols.  
 No special precautions are necessary if used correctly.

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

**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.

## 8 Exposure controls and personal protection

**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.

**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  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**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

## 9 Physical and chemical properties

**General Information**

**Form:** Fluid

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Trade name: Lysis Buffer

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<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic
<b>Change in condition</b>	
<b>Melting point/Melting range:</b> Undetermined.	
<b>Boiling point/Boiling range:</b> Undetermined.	
<b>Flash point:</b>	Not applicable.
<b>Auto igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Density:</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible.
<b>pH-value at 20°C (68°F):</b>	7.3
<b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	44.2 %
<b>Solids content:</b>	56.7 %

## 10 Stability and reactivity

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

**Materials to be avoided:**

**Dangerous reactions** No dangerous reactions known.

**Dangerous products of decomposition:** No dangerous decomposition products known.

## 11 Toxicological information

**Acute toxicity:**

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

**593-84-0 guanidinium thiocyanate**

Oral	LD50	475 mg/kg (Rat) By analogy to guanidine hydrochloride
Dermal	LD50	>2000 mg/kg (Rabbit) By analogy to Guanidine hydrochloride.

**Primary irritant effect:**

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

**on the eye:** Irritating effect.

**Sensitization:** Sensitization possible through inhalation.

**Additional toxicological information:**

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

Harmful

Irritant

USA

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Trade name: **Lysis Buffer**

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## 12 Ecological information

**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.

## 13 Disposal considerations

**Product:**
**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

Contact Promega Safety Department for additional transportation information

**DOT regulations:** Not regulated

**Hazard class:** -

**Land transport ADR/RID (cross-border):** Not regulated

**ADR/RID class:** -

**UN-Number:** Not regulated

**Maritime transport IMDG:**

**IMDG Class:** -

**Marine pollutant:** No

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** -

## 15 Regulations

**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.

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Trade name: **Lysis Buffer**

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**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.

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

None of the ingredients are listed.

**NTP (National Toxicology Program)**

None of the ingredients are listed.

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

None of the ingredients are listed.

**MAK (German Maximum Workplace Concentration)**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

**Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

**Hazard symbols:**

Xn Harmful

**Hazard-determining components of labelling:**

guanidinium thiocyanate

**Risk phrases:**

Harmful by inhalation, in contact with skin and if swallowed.

Irritating to eyes and skin.

**Safety phrases:**

Keep container in a well-ventilated place.

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing and gloves.

This material and its container must be disposed of as hazardous waste.

**National regulations:**

Class	Share in %
Water	44.2
NK	1.0

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

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**Trade name: Lysis Buffer**

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**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 MSDS:**

*Promega Corporation*

*Environmental Health and Safety Department*

*2800 Woods Hollow Road*

*Madison, WI*

*Ph: (608)274-4330*

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

USA

**Material Safety Data Sheet**  
acc. to ISO/DIS 11014

Printing date 06/14/2010

Reviewed on 06/14/2010

**1 Identification of substance**

**Trade name:** Maxwell® LEV DNA IQ Resin

**Article number:** K104

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

**Manufacturer/Supplier:**

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

**MSDS author:** Regulatory.Affairs@promega.com

**Emergency information:**

For Chemical Emergency ONLY (spill, leak, fire, exposure or accident), call CHEMTREC at 1-800-424-9300  
For call originating outside the United States dial 001-703-527-3887

**2 Composition/Data on components**

**Chemical characterization**

**Description:** Mixture of the substances listed below with nonhazardous additions.

**Dangerous components:**

63231-67-4	Silica Gel	<1.00%
26172-55-4	5-chloro-2-methyl-2H-isothiazol-3-one	<0.1%

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

**3 Hazards identification**

**Hazard description:**



Xi Irritant

**Information pertaining to particular dangers for man and environment:**

May cause sensitization by skin contact.

**Classification system:**

The classification was made according to the latest editions of international substances lists, and is expanded upon by company and technical literature data.

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

Health = 1

Fire = 0

Reactivity = 0

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**Trade name: Maxwell® LEV DNA IQ Resin**

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

Health = 1

Fire = 0

Reactivity = 0

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

Irritant

Sensitizer

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

Dermal

Oral

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

## 4 First aid measures

**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** If symptoms persist consult doctor.**Information for doctor:****The following symptoms may occur:** Allergic reactions

## 5 Fire fighting measures

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

## 6 Accidental release measures

**Person-related safety precautions:** Wear protective clothing.**Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.**Measures for cleaning/collecting:**

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

Ensure adequate ventilation.

## 7 Handling and storage

**Handling:****Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

No special precautions are necessary if used correctly.

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

USA

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Trade name: Maxwell® LEV DNA IQ Resin

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## 8 Exposure controls and personal protection

**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.

**Personal protective equipment:**

**General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not eat or drink while working.

Clean skin thoroughly immediately after handling the product.

Ensure that washing facilities are available at the work place.

**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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**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:** Goggles recommended during refilling.

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic

**Change in condition**

**Melting point/Melting range:** 0°C (32°F)

**Boiling point/Boiling range:** 100°C (212°F)

**Flash point:** Not applicable.

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

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

**Density at 20°C (68°F):** 1 g/cm<sup>3</sup>

**Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

**pH-value at 20°C (68°F):** 5

**Solvent content:**

**Organic solvents:** 0.1 %

**Water:** 98.7 %

**VOC content:** 0.1 %

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USA

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Reviewed on 06/14/2010

**Trade name: Maxwell® LEV DNA IQ Resin**

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**Solids content:** 1.1 %

## 10 Stability and reactivity

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

**Materials to be avoided:**

**Dangerous reactions** No dangerous reactions known.

**Dangerous products of decomposition:** No dangerous decomposition products known.

## 11 Toxicological information

**Acute toxicity:**

**Primary irritant effect:**

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

**on the eye:** Irritating effect.

**Sensitization:** Sensitization possible through skin contact.

**Additional toxicological information:**

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

## 12 Ecological information

**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.

## 13 Disposal considerations

**Product:**

**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

Contact Promega Safety Department for additional transportation information

**DOT regulations:** Not regulated

**Hazard class:** -

**Land transport ADR/RID (cross-border):** Not regulated

**ADR/RID class:** -

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-USA

# Material Safety Data Sheet

acc. to ISO/DIS 11014

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**Trade name: Maxwell® LEV DNA IQ Resin**

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**UN-Number:** Not regulated

**Maritime transport IMDG:**

**IMDG Class:** -

**Marine pollutant:** No

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** -

## 15 Regulations

**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.

**Cancerogenity categories**

**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

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

1309-37-1 diiron trioxide

3

**NTP (National Toxicology Program)**

None of the ingredients are listed.

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

1309-37-1 diiron trioxide

A4

**MAK (German Maximum Workplace Concentration)**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

**Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

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**Trade name: Maxwell® LEV DNA IQ Resin**

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**Hazard symbols:***Xi Irritant***Hazard-determining components of labelling:***5-chloro-2-methyl-2H-isothiazol-3-one***Risk phrases:***May cause sensitization by skin contact.***Safety phrases:***Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).**Avoid contact with skin.**Wear suitable gloves.**This material and its container must be disposed of as hazardous waste.***National regulations:**

Class	Share in %
Water	98.7
II	0.1

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

## 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 MSDS:***Promega Corporation**Environmental Health and Safety Department**2800 Woods Hollow Road**Madison, WI**Ph: (608)274-4330***\* Data compared to the previous version altered.**

USA

**Material Safety Data Sheet**  
acc. to ISO/DIS 11014

Printing date 06/14/2010

Reviewed on 06/14/2010

**1 Identification of substance**

**Trade name:** Alcohol Wash

**Article number:** A937

**Application of the substance / the preparation**

Laboratory chemicals

Laboratory Chemical

**Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

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

MSDS author: [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

**Emergency information:**

For Chemical Emergency ONLY (spill, leak, fire, exposure or accident), call CHEMTREC at 1-800-424-9300

For call originating outside the United States dial 001-703-527-3887

**2 Composition/Data on components**

**Chemical characterization**

**Description:** Mixture of the substances listed below with nonhazardous additions.

**Dangerous components:**

64-17-5	ethanol	20-25%
67-63-0	propan-2-ol	20-25%

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

**3 Hazards identification**

**Hazard description:**



Xi Irritant

**Information pertaining to particular dangers for man and environment:**

Has a narcotizing effect.

Flammable.

Irritating to eyes.

Vapours may cause drowsiness and dizziness.

**Classification system:**

The classification was made according to the latest editions of international substances lists, and is expanded upon by company and technical literature data.

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**Trade name: Alcohol Wash**

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

Health = 1

Fire = 3

Reactivity = 0

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

Health = 1

Fire = 3

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Irritant**Primary route(s) of entry:**

Dermal

Inhalation

Oral

**Target Organ(s):**

May cause Liver damage (Hepatotoxin)

May affect Nervous system (Neurotoxin)

May cause Kidney damage (Nephrotoxin)

**Additional information:** Keep away from sources of ignition.**4 First aid measures****General information:**

Take affected persons out into the fresh air.

Take affected persons out of danger area and lay down.

**After inhalation:**

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

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

Take affected persons into fresh air and keep quiet.

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

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

**After swallowing:** If symptoms persist consult doctor.**Information for doctor:****The following symptoms may occur:**

Headache

Dizziness

Dizziness

Nausea

**5 Fire fighting measures****Suitable extinguishing agents:**CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

Use fire fighting measures that suit the environment.

**For safety reasons unsuitable extinguishing agents:**

Water

Water with full jet

USA

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Trade name: Alcohol Wash

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## 6 Accidental release measures

### Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

Wear protective clothing.

**Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.

### Measures for cleaning/collecting:

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

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

## 7 Handling and storage

### Handling:

#### Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

No special precautions are necessary if used correctly.

Use only in well ventilated areas.

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

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

### 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.

## 8 Exposure controls and personal protection

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

#### 64-17-5 ethanol

PEL 1900 mg/m<sup>3</sup>, 1000 ppm

REL 1900 mg/m<sup>3</sup>, 1000 ppm

TLV Short-term value: 1880 mg/m<sup>3</sup>, 1000 ppm

#### 67-63-0 propan-2-ol

PEL 980 mg/m<sup>3</sup>, 400 ppm

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

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

TLV Short-term value: 984 mg/m<sup>3</sup>, 400 ppm

Long-term value: 492 mg/m<sup>3</sup>, 200 ppm

BEI

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

### 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.

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acc. to ISO/DIS 11014

Printing date 06/14/2010

Reviewed on 06/14/2010

Trade name: Alcohol Wash

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Do not eat or drink while working.

**Breathing equipment:**

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

**Protection of hands:**

Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**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

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Fluid Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic

**Change in condition**

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

**Boiling point/Boiling range:** 78°C (172°F)

**Flash point:** 21 - 55°C (70 - 131°F)

**Ignition temperature:** 425°C (797°F)

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

**Danger of explosion:** Product does not present an explosion hazard.  
Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**Explosion limits:**

**Lower:** 2.0 Vol %

**Upper:** 15.0 Vol %

**Vapor pressure at 20°C (68°F):** 59 hPa (44 mm Hg)

**Density at 20°C (68°F):** 0.90071 g/cm<sup>3</sup>

**Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

**pH-value at 20°C (68°F):** 7

**Solvent content:**

**Organic solvents:** 50.0 %

**Water:** 49.4 %

**VOC content:** 50.0 %

**Solids content:** 0.6 %

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## 10 Stability and reactivity

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

**Materials to be avoided:**

**Dangerous reactions** No dangerous reactions known.

**Dangerous products of decomposition:** No dangerous decomposition products known.

## 11 Toxicological information

**Acute toxicity:**

**Primary irritant effect:**

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

**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:

Irritant

## 12 Ecological information

**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.

## 13 Disposal considerations

**Product:**

**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

Contact Promega Safety Department for additional transportation information

**DOT regulations:**



**Hazard class:**

3

**Identification number:**

UN1987

**Packing group:**

III

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**Proper shipping name (technical name):** ALCOHOLS, N.O.S. (ETHANOL, ISOPROPANOL (ISOPROPYL ALCOHOL))

**Label** 3

**Land transport ADR/RID (cross-border):**



**ADR/RID class:** 3 (F1) Flammable liquids

**Danger code (Kemler):** 30

**UN-Number:** 1987

**Packaging group:** III

**Label:** 3

**Description of goods:** 1987 ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))

**Maritime transport IMDG:**



**IMDG Class:** 3

**UN Number:** 1987

**Label** 3

**Packaging group:** III

**EMS Number:** F-E,S-E

**Marine pollutant:** No

**Propper shipping name:** ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))

**Air transport ICAO-TI and IATA-DGR:**



**ICAO/IATA Class:** 3

**UN/ID Number:** 1987

**Label** 3

**Packaging group:** III

**Propper shipping name:** ALCOHOLS, N.O.S. (ETHANOL, ISOPROPANOL (ISOPROPYL ALCOHOL))

## 15 Regulations

Sara

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

None of the ingredients are listed.

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

67-63-0 | propan-2-ol

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**Trade name: Alcohol Wash**

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**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:**

64-17-5 | ethanol

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

None of the ingredients are listed.

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

67-63-0 | propan-2-ol

3

**NTP (National Toxicology Program)**

None of the ingredients are listed.

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

64-17-5 | ethanol

A3

67-63-0 | propan-2-ol

A4

**MAK (German Maximum Workplace Concentration)**

64-17-5 | ethanol

5

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

None of the ingredients are listed.

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

None of the ingredients are listed.

**Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

**Hazard symbols:**

Xi Irritant

**Risk phrases:**

Flammable.

Irritating to eyes.

Vapours may cause drowsiness and dizziness.

**Safety phrases:**

Keep container tightly closed.

Keep away from sources of ignition - No smoking.

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

Avoid contact with skin and eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

This material and its container must be disposed of as hazardous waste.

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**Trade name: Alcohol Wash**

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**National regulations:**

<i>Class</i>	<i>Share in %</i>
<i>Water</i>	<i>49.4</i>
<i>NK</i>	<i>50.0</i>

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

**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 MSDS:**

Promega Corporation

Environmental Health and Safety Department

2800 Woods Hollow Road

Madison, WI

Ph:(608)274-4330

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

USA