

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 23.06.2008

Revision: 23.06.2008

\* **1 Identification of substance**

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

**Article number:** A148

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

**Manufacturer/Supplier:**

Promega Corporation  
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Madison, WI 53711  
U.S.A.  
1-608-274-4330  
1-800-356-9526

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

**Further information obtainable from:**

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**Information in case of emergency:**

CHEMTREC 1-800-424-9300

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

\* **2 Hazards identification**

**Hazard description:**



Xn Harmful

**Information concerning to particular hazards to man and environment**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 22 Harmful if swallowed.

R 36/38 Irritating to eyes and skin.

**Classification system:**

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

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### 3 Composition/information on ingredients

#### Chemical characterization

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

#### Components:

CAS: 50-01-1	guanidinium chloride	 Xn,  Xi; R 22-36/38	25-50%
EINECS: 200-002-3			
	acetic acid	 C; R 35	10-15%

**Additional information:** For the wording of the listed risk phrases refer to section 16.

### 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.

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

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

#### After eye contact:

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

**After swallowing:** Call for a doctor immediately.

### 5 Fire fighting measures

#### Suitable extinguishing agents:

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

### 6 Accidental release measures

**Person-related safety precautions:** Not required.

**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).

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 fire - and explosion protection:** No special measures required.

#### Storage

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

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

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Further information about storage conditions: Keep receptacle tightly sealed.

## 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.

**Ingredients 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 valid during the making 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.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

**Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**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.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Tightly sealed goggles.

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

**Change in condition**

**Melting point/Melting range:** undetermined

**Boiling point/Boiling range:** 100°C

**Flash point:** Not applicable

**Ignition temperature:** 485°C

**Self-igniting:** Product is not selfigniting.

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

**Explosion limits:**

**Lower:** 4.0 Vol %

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<b>Upper:</b>	17.0 Vol %
<b>Vapour pressure at 20°C:</b>	16 hPa
<b>Density at 20°C:</b>	1.10895 g/cm <sup>3</sup>
<b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix
<b>pH-value at 20°C:</b>	4.0
<b>Solvent content:</b>	
<b>Organic solvents:</b>	12.7 %
<b>Water:</b>	40.8 %
<b>Solids content:</b>	46.5 %

### 10 Stability and reactivity

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

**Dangerous reactions:**

Reacts with strong oxidizing agents

Reacts with strong acids and oxidizing agents

**Dangerous decomposition products:**

Carbon monoxide and carbon dioxide

Hydrogen chloride (HCl)

### 11 Toxicological information

**Acute toxicity:**

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

**50-01-1 guanidinium chloride**

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

**Primary irritant effect:**

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

**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

Harmful

Irritant

### 12 Ecological information

**General notes:**

Water hazard class 1 (German Regulation) (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.

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**13 Disposal considerations**

**Product:****Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

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

**14 Transport information**

Contact Promega Safety Department for additional transport information.

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

**ADR/RID class:** --- (---)

Not regulated

**UN-Number:**

**Hazard label** Not regulated

**Maritime transport IMDG:**

**Marine pollutant:** No

**15 Regulations**

**Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

**Hazard-determining components of labelling:**

guanidinium chloride

**Risk phrases:**

22 Harmful if swallowed.

36/38 Irritating to eyes and skin.

**Safety phrases:**

23 Do not breathe fumes/aerosol.

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

36/37 Wear suitable protective clothing and gloves.

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

**National regulations****Technical instructions (air):**

Class	Share in %
Water	40.8
II	12.7

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**Waterhazard 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.*

**Relevant R-phrases**

- 22 Harmful if swallowed.
- 35 Causes severe burns.
- 36/38 Irritating to eyes and skin.

**Department issuing MSDS:**

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