

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

Printing date 11/05/2012

Reviewed on 11/04/2012

**1 Identification of the substance/mixture and of the company/undertaking**

**Product identifier**

**Trade name:** TAE, 50X

**Article number:** H5231

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

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

**Manufacturer/Supplier:**

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

**Information department:**

SDS author: Regulatory.Affairs@promega.com

**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 Composition/information on ingredients**

**Chemical characterization: Mixtures**

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

**Dangerous components:**

6850-28-8	Tris(hydroxymethyl)aminomethane acetate salt ⚠ H319; STOT SE 3, H335	25-50%
64-19-7	acetic acid ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1A, H314	5-10%
139-33-3	disodium dihydrogenethylenediaminetetraacetate	<2.00%

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

**3 Hazards identification**

**Classification of the substance or mixture**



H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



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*Irritating to eyes and respiratory system.*

**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.*

**Label elements**

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

**Hazard pictograms** GHS07

**Signal word** Warning

**Hazard statements**

*Causes serious eye irritation.*

*May cause respiratory irritation.*

**Precautionary statements**

*Avoid breathing dust/fume/gas/mist/vapours/spray.*

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

*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.*

*Store locked up.*

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

**Classification system:**

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

*Health = 1*

*Fire = 0*

*Reactivity = 0*

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

*Health = 1*

*Fire = 0*

*Reactivity = 0*

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

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

*Dermal*

*Inhalation*

*Oral*

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

\* **4 First aid measures**

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

**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.*

\* **5 Firefighting measures**

**Suitable extinguishing agents:**

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

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

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## 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Wear protective clothing.

**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:** Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 13 for disposal information.

## 7 Handling and storage

**Handling:**

**Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

**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.

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

## 8 Exposure controls/personal protection

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

**64-19-7 acetic acid**

PEL 25 mg/m<sup>3</sup>, 10 ppm

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

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

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

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

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

**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.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

**Breathing equipment:**

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

**Protection of hands:**

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.

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Eye protection: Tightly sealed goggles

## 9 Physical and chemical properties

### General Information

#### Appearance:

<b>Form:</b>	Solid
<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.

**pH-value:** Not applicable.

#### Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100°C (212 °F)

**Flash point:** Not applicable.

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

**Ignition temperature:** 485°C (905 °F)

**Decomposition temperature:** Not determined.

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

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

#### Explosion limits:

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

**Vapor pressure:** Not applicable.

<b>Density:</b>	Not determined.
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.

#### Solubility in / Miscibility with

**Water:** Insoluble.

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

#### Viscosity:

<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.

#### Solvent content:

<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	62.2 %

**Solids content:** 90.0 %

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

## 10 Stability and reactivity

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

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**Incompatible materials:** No further relevant information available.**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Acute toxicity:****LD/LC50 values that are relevant for classification:** No data available**Primary irritant effect:****on the skin:** No irritant effect.**on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant**Carcinogenic categories****IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

**NTP (National Toxicology Program)**

None of the ingredients are listed.

## 12 Ecological information

**Aquatic toxicity:** Not harmful to the aquatic environment**Persistence and degradability:** Not available**Behavior in environmental systems:****Bioaccumulative potential:** Not known**Ecotoxicological effects:****Remark:** Not available**Additional ecological information:****General notes:**

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

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

## 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**

None

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

Void

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<b>UN proper shipping name</b>	None
<b>DOT, ADR, ADN, IMDG, IATA</b>	Void

<b>Transport hazard class(es)</b>	None
<b>DOT, ADR, ADN, IMDG, IATA Class</b>	Void

<b>Packing group</b>	None
<b>DOT, ADR, IMDG, IATA</b>	Void

<b>Environmental hazards:</b>	
<b>Marine pollutant:</b>	No

<b>Special precautions for user</b>	Not applicable.
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<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
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<b>UN "Model Regulation":</b>	-
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## 15 Regulatory information

Sara

<b>Section 355 (extremely hazardous substances):</b>
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None of the ingredients are listed.
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<b>Section 313 (Specific toxic chemical listings):</b>
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None of the ingredients are listed.
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<b>TSCA (Toxic Substances Control Act):</b>
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All ingredients are listed.
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<b>Proposition 65</b>
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<b>Chemicals known to cause cancer:</b>
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None of the ingredients are listed.
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<b>Chemicals known to cause reproductive toxicity for females:</b>
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None of the ingredients are listed.
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<b>Chemicals known to cause reproductive toxicity for males:</b>
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None of the ingredients are listed.
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<b>Chemicals known to cause developmental toxicity:</b>
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None of the ingredients are listed.
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<b>Carcinogenicity categories</b>
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<b>EPA (Environmental Protection Agency)</b>
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None of the ingredients are listed.
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<b>TLV (Threshold Limit Value established by ACGIH)</b>
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None of the ingredients are listed.
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<b>MAK (German Maximum Workplace Concentration)</b>
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None of the ingredients are listed.
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<b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
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None of the ingredients are listed.
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**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

**GHS label elements** The product is classified and labelled according to the Globally Harmonized System (GHS).**Hazard pictograms** GHS07**Signal word** Warning**Hazard statements**

Causes serious eye irritation.

May cause respiratory irritation.

**Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapours/spray.

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

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Store locked up.

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

**National regulations:**

Class	Share in %
Wasser	62.2
II	7.5

**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

**Abbreviations and acronyms:**

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

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

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