### Kit components

Product Trypsin Gold-Mass Spec Grade, 100ug  
Product code V5280

<table>
<thead>
<tr>
<th>Substance number</th>
<th>Description</th>
<th>Amount</th>
<th>Symbols</th>
</tr>
</thead>
<tbody>
<tr>
<td>V528A</td>
<td>Trypsin Gold-Mass Spec Grade</td>
<td>1</td>
<td>Xn</td>
</tr>
</tbody>
</table>
**1 Identification**

**Product identifier**

*Trade name: Trypsin Gold-Mass Spec Grade*

**Article number:** V528A  
**CAS Number:** 9002-07-7  
**EC number:** 232-650-8  
**Index number:** 647-010-00-7

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

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

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.

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

**Information department:**  SDS author: Regulatory.Affairs@promega.com

**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)

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**2 Hazard(s) identification**

**Classification of the substance or mixture**

- GHS08 Health hazard

**Respiratory Sensitization**  Resp. Sens. 1  H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled.

- GHS07

**Skin Irritation**  Skin Irrit. 2  H315  Causes skin irritation.

**Eye Irritation**  Eye Irrit. 2A  H319  Causes serious eye irritation.

**STOT SE**  STOT SE 3  H335  May cause respiratory irritation.

**Label elements**

**GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**  GHS07, GHS08

**Signal word**  Danger

(Contd. on page 2)
Trade name: Trypsin Gold-Mass Spec Grade

Hazard-determining components of labeling:
Trypsin

Hazard statements
Causes skin irritation.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation.

Precautionary statements
Wash thoroughly after handling.
[In case of inadequate ventilation] wear respiratory protection.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
Wear eye protection / face protection.
Use only outdoors or in a well-ventilated area.
IF ON SKIN: Wash with plenty of water.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Call a POISON CENTER/doctor if you feel unwell.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place. Keep container tightly closed.
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     = *
Fire       = 0
Reactivity = 0

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

Primary route(s) of entry:
Dermal
Inhalation
Oral

Target Organ(s): Affects Pulmonary system (Lungs)
Other hazards Product has been observed to have sensitizing effects.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances
CAS No. Description
9002-07-7 Trypsin
**Trade name:** Trypsin Gold-Mass Spec Grade

**Identification number(s)**
EC number: 232-650-8
Index number: 647-010-00-7

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**4 First-aid measures**

**Description of first aid measures**

**After inhalation:**
Supply fresh air and to be sure call for a doctor.
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:**
If the patient feels unwell or is concerned, obtain medical advice.

**Information for doctor:**
Most important symptoms and effects, both acute and delayed
Allergic reactions
Indication of any immediate medical attention and special treatment needed
No further relevant information available.

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**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

**Advice for firefighters**
No special advice

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**6 Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**
Remove persons from danger area.
Avoid formation of dust.
Wear protective clothing.

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

**Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to Section 13.
Pick up mechanically.
Ensure adequate ventilation.

**Reference to other sections**
See Section 7 for information on safe handling.
See Section 13 for disposal information.

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**7 Handling and storage**

**Handling:**
Precautions for safe handling
Keep receptacles tightly sealed.
43.0.21

(Contd. of page 3)

Ensure good ventilation/exhaustion at the workplace.
Work only in fume cabinet.

**Information about protection against explosions and fires:**
Keep respiratory protective device available.
The product is not flammable.

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

**Storage:**

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

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

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

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

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**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:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat or drink while working.
Clean skin thoroughly immediately after handling the product.

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

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

**Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Eye protection:**
Safety glasses
Use equipment for eye protection tested and approved under government NIOSH standards.

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**9 Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

**Appearance:**

- Form: Powder
- Color: White
- Odor: Not determined
- Odor threshold: Not determined.
**Trade name:** Trypsin Gold-Mass Spec Grade

**pH-value:** Not applicable.

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

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

**Ignition temperature:**
- **Decomposition temperature:** Not determined.

**Auto igniting:** Not determined.

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

**Explosion limits:**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Vapor pressure:** Not applicable.

**Density:** Not determined.
- **Relative density:** Not determined.
- **Vapor density:** Not applicable.
- **Evaporation rate:** Not applicable.

**Solubility in / Miscibility with**
- **Water:** Soluble.
- **Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**
- **Dynamic:** Not applicable.
- **Kinematic:** Not applicable.

**Organic solvents:** 0.0 %

**Solids content:** 100.0 %

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

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**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.

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**11 Toxicological information**

**Information on toxicological effects**

**Acute toxicity:**

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

- **9002-07-7 Trypsin**
  - Oral **LD50** 5000 mg/kg (Rat)

(Contd. on page 6)
Safety Data Sheet
acc. to OSHA HCS

Trade name: Trypsin Gold-Mass Spec Grade

Primary irritant effect:
on the skin: Irritant to skin and mucous membranes.
on the eye: Irritating effect.
Sensitization: Sensitization possible through skin contact.

Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer)
Substance is not listed.

NTP (National Toxicology Program)
Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)
Substance is not listed.

12 Ecological information

Toxicity
Aquatic toxicity: Not harmful to the aquatic environment
Persistence and degradability Not available
Behavior in environmental systems:
Bioaccumulative potential Not known
Mobility in soil No further relevant information available.
Ecotoxic effects:
Remark: Not available

Additional ecological information:
General notes: Generally not hazardous for water.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

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

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

14 Transport information

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

(Contd. on page 7)
Trade name: Trypsin Gold-Mass Spec Grade

<table>
<thead>
<tr>
<th>Transport hazard class(es)</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>Class</td>
<td>Void</td>
</tr>
<tr>
<td>Packing group</td>
<td>None</td>
</tr>
<tr>
<td>DOT, ADR, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>Environmental hazards:</td>
<td>No</td>
</tr>
<tr>
<td>Marine pollutant:</td>
<td>Yes</td>
</tr>
<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>Void</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):**
Substance is listed.

**Proposition 65**

Chemicals known to cause cancer:
Substance is not listed.

Chemicals known to cause reproductive toxicity for females:
Substance is not listed.

Chemicals known to cause reproductive toxicity for males:
Substance is not listed.

Chemicals known to cause developmental toxicity:
Substance is not listed.

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

**Signal word** Danger
Trade name: Trypsin Gold-Mass Spec Grade

Hazard-determining components of labeling:
Trypsin

Hazard statements
Causes skin irritation.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation.

Precautionary statements
Wash thoroughly after handling.
[In case of inadequate ventilation] wear respiratory protection.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
Wear eye protection / face protection.
Use only outdoors or in a well-ventilated area.
IF ON SKIN: Wash with plenty of water.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER/doctor if you feel unwell.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations:
Water hazard class: Generally not hazardous for water.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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

Date of preparation / last revision 11/09/2016 / -

Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: 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
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)

(Contd. on page 9)
Trade name: Trypsin Gold-Mass Spec Grade

HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Resp. Sens. 1: Respiratory sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
* Data compared to the previous version altered.