

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
Trade name: KAPA T4 Ligase

Catalog number: KK6003, KK6004, KK6005, KK6006

Application of the substance/preparation:
 Laboratory chemicals

Manufacturer/Supplier:

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 in your country

COMPOSITION/INFORMATION ON INGREDIENTS
Chemical characterization

- Description:** Solution, consisting of the following components:

CAS: 56-81-5 EINECS: 200-289-5	Glycerol	50 %
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Other components:

- Components not listed here are not dangerous or their concentrations do not exceed the limits specified in the EU directive 1999/45/EC.

Additional information:

- For the wording of the listed risk phrases refer to section "OTHER INFORMATION".

HAZARDS IDENTIFICATION
Hazard description:

- Not Applicable

Information concerning particular hazards for humans and environment:

- The product does not have to be labeled according to the calculation procedure of the "*General Classification guideline for preparations of the EU*" in the latest valid version.

Classification system:

- The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

OSHA hazards ratings:

- Health: 0: Minimal hazard
- Fire: 0: Minimal hazard
- Reactivity: 0: Minimal hazard

FIRST AID MEASURES

General information:

- Avoid skin contact - the wearing of gloves is recommended.

After inhalation:

- Supply fresh air; consult doctor in case of complaints.

After skin contact:

- Generally the product does not irritate the skin. Wash under running water.

After eye contact:

- Rinse opened eye for several minutes under running water. Consult doctor.

After swallowing:

- Induce vomiting and consult doctor.

FIRE-FIGHTING MEASURES

Suitable extinguishing agents:

- CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment:

- No special measures required.

ACCIDENTAL RELEASE MEASURES

Person-related safety precautions:

- Not required.

Measures for environmental protection:

- Dilute with plenty of water. Do not allow undiluted or large quantities of product to enter sewers/surface or ground water.

Measures for cleaning/collecting:

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

Additional information:

- No dangerous substances are released.

HANDLING AND STORAGE

Information for safe handling:

- Wear gloves. No special measures required if used correctly.

Information about fire - and explosion protection:

- No special measures required.

Information for safe storage:

- Store at -20°C and protect from direct light.
- No special requirements to be met for storage in one common storage facility.
- No further information about storage conditions provided.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information:

- The lists valid during the making of this MSDS were used as basis.

Ingredients with limit values that require monitoring at the workplace:

- 56-81-5 Glycerol
PEL () 15 mg/m³ total dust, 5 mg/m³ respirable fraction
TLV () 10 ppm

General protective and hygienic measures:

- The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection:

- Not required.

Protection of hands:

- The glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to missing tests no recommendation for the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and physical degradation should be made.

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:

PHYSICAL AND CHEMICAL PROPERTIES

General information:

Form: Solution	Boiling point/Boiling range: Undetermined
Colour: Pink	Flash point: Not applicable
Odour: Odourless	Self-igniting: Product is not self igniting
Melting point/Melting range: Undetermined	Danger of explosion: Product does not present an explosion hazard
Density: Not determined	pH-value at 20°C: Not available
Solubility in / Miscibility with water: Fully miscible	

STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided:

- No decomposition if used according to specifications.

Dangerous reactions:

- No dangerous reactions known.

Dangerous decomposition products:

- No dangerous decomposition products known.

TOXICOLOGICAL INFORMATION

Glycerol

- Conditions aggravated / target organs: Single dose oral toxicity is low. Ingestion of larger amounts may cause injury. Signs and symptoms of excessive exposure may be central nervous system effects and increased blood sugar levels. Person with preexisting conditions may be more susceptible.
- DOT Classification: Not Regulated
- DOT regulations may change from time to time. Please consult the most recent version of the relevant regulations.
- **Additional toxicological information:**
- The product is not subject to classification according to the calculation method of the *General EU Classification Guidelines for Preparations* as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

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.

DISPOSAL CONSIDERATIONS

Product:

- **Recommendation:** Hand over to hazardous waste disposers.

Uncleaned packaging:

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

Recommended cleansing agents:

- Water, if necessary together with cleansing agents.

TRANSPORT INFORMATION

Land transport ADR/RID (cross-border):

- **ADR/RID class:** -

Maritime transport IMDG:

- **IMDG Class:** -

Marine pollutant:

- No

Air transport ICAO-TI and IATA-DGR:

- **ICAO/IATA Class:** -

Additional information:

- Not dangerous according to the above specifications

REGULATORY INFORMATION

Labeling according to EU guidelines:

- Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations under EU Directives and the *Ordinance on Hazardous Materials* (German GefStoffV).

Symbol

- -

R-phrases

- -

S-phrases

- -

Special labeling of certain preparations:

- Safety data sheet available for professional user on request.

OTHER INFORMATION

This information is based on our present knowledge and shall be used only as a guide. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Kapa Biosystems is not held liable for any damage resulting from handling or from contact with the above mentioned products. MSDS has been prepared in accordance with EU directives 67/548/EEC, 91/155/EEC and other EU Community legislation in force.