Product and Company Identification

Product Name: HRV3C Protease
Cat #: HRV3-100, HRV3-200
Product Use: For Research Use Only. Not for use in diagnostic procedures

Company: Molecular Cloning Laboratories (MCLAB)
320 Harbor Way
South San Francisco
CA 94080

Telephone: 888-MCLAB-88
650-871-8771
Fax: 650-871-8796

Hazard Identification

Emergency Overview
OSHA Hazards
Target Organ Effect
Kidney

GHS Classification
Skin irritation (Category 3)
Eye irritation (Category 2B)

GHS Label elements, including precautionary statements
Pictogram none
Signal word Warning

Hazard statement(s)
H316 Causes mild skin irritation.
H320 Causes eye irritation.

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

HMIS Classification
Health hazard: 0
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 0

NFPA Rating
Health hazard: 0
Fire: 0
Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: May be harmful if swallowed.

Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td></td>
<td>50 - 70 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>56-81-5</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
<td>200-289-5</td>
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</table>

First Aid Measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Firefighting Measures

Conditions of flammability
Not flammable or combustible.

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Accidental Release Measures

Personal precautions
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions
Do not let product enter drains.
Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Handling And Storage
Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Recommended storage temperature: -20 °C

Exposure Controls/Personal Protection
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>56-81-5</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000</td>
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<tr>
<td></td>
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<td></td>
<td>TWA</td>
<td>USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
</tbody>
</table>

Remarks
Upper Respiratory Tract irritation

<table>
<thead>
<tr>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
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</thead>
<tbody>
<tr>
<td>TWA</td>
<td>15 mg/m³</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
</tr>
<tr>
<td>TWA</td>
<td>5 mg/m³</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
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</tbody>
</table>

See Appendix D - Substances with No Established RELs

Personal protective equipment
Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Physical And Chemical Properties**

**Appearance**
- Form: liquid
- Colour: no data available

**Safety data**
- pH: no data available
- Melting point/freezing point: no data available
- Boiling point: no data available
- Flash point: no data available
- Ignition temperature: no data available
- Autoignition temperature: no data available
- Lower explosion limit: no data available
- Upper explosion limit: no data available
- Vapour pressure: no data available
- Density: no data available
- Water solubility: no data available
- Partition coefficient: n-octanol/water: no data available
- Relative vapour density: no data available
- Odour: no data available
- Odour Threshold: no data available
- Evaporation rate: no data available

**Stability And Reactivity**

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of hazardous reactions**
- no data available

**Conditions to avoid**
- no data available

**Materials to avoid**
- no data available

**Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - no data available
Toxicological Information

**Acute toxicity**

**Oral LD50**
no data available

**Inhalation LC50**
no data available

**Dermal LD50**
no data available

**Other information on acute toxicity**
no data available

**Skin corrosion/irritation**
no data available

**Serious eye damage/eye irritation**
Eyes: no data available

**Respiratory or skin sensitization**
no data available

**Germ cell mutagenicity**
no data available

**Carcinogenicity**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**
no data available

**Teratogenicity**
no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**
no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**
no data available

**Aspiration hazard**
no data available

**Potential health effects**

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Synergistic effects**
no data available
Additional Information
RTECS: Not available

Ecological Information
Toxicity
no data available
Persistence and degradability
no data available
Bioaccumulative potential
no data available
Mobility in soil
no data available
PBT and vPvB assessment
no data available
Other adverse effects
no data available

Disposal Considerations
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product.

Transport Information
DOT (US)
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

Regulatory Information
OSHA Hazards
Target Organ Effect
SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards
Chronic Health Hazard
### Massachusetts Right To Know Components

<table>
<thead>
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<th>CAS-No.</th>
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<tr>
<td>56-81-5</td>
<td>2007-03-01</td>
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### Pennsylvania Right To Know Components

<table>
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### New Jersey Right To Know Components

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### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### Other Information

**Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.