1. Identification of the substance/preparation and company

**Trade name**

PROTECTOGEN

**Use of the substance/preparation.**

Industry sector : Functional Fluids
Type of use : Techno-chemical industry.

**Identification of the company**

Clariant Produkte (Deutschland) GmbH

65926 Frankfurt am Main
Telephone no. : +49 69 305 18000

**Information about the substance/preparation**

Div. Functional Chemicals/PRODUCT SAFETY
++49(0)69-305-2092/15315/32251

**Emergency telephone number** : +49 69 305 6418

2. Composition/information on ingredients

**Chemical characterization**

Aqueous mixture of sodium ethylhexanoate and inhibitor

**Hazardous ingredients**

Sodium-2-ethylhexanoate
Concentration : 50 - 80 %
CAS number : 19766-89-3
EINECS number : 243-283-8
Hazard symbols : Xn
R phrases : 63

Methyl-1H-benzotriazole
Concentration : < 3,5 %
CAS number : 29385-43-1
EINECS number : 249-596-6
Hazard symbols : Xn
R phrases : 20/22 36

3. Hazards identification

Possible risk of harm to the unborn child.

4. First aid measures

**General information**

Remove soiled or soaked clothing immediately

**After inhalation**

Ensure supply of fresh air.
After contact with skin
   In case of contact with skin wash off immediately with plenty of water

After contact with eyes
   In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice

After ingestion
   Summon a doctor immediately.

5. Fire-fighting measures

   Suitable extinguishing media
      water spray jet
      dry powder
      carbon dioxide
      alcohol-resistant foam

   Special hazards from the substance itself, its combustion products or from its vapours
      In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO)
      Nitrous gases (NOx)

   Special protective equipment for firefighting
      Use self-contained breathing apparatus

6. Accidental release measures

   Personal precautions
      Ensure adequate ventilation.
      Wear suitable personal protective equipment.

   Environmental precautions
      Do not allow to enter drains or waterways

   Methods for cleaning up/taking up
      Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder, sawdust).
      Dispose of as prescribed

7. Handling and storage

   Advice on safe handling
      Open and handle container with care.

   Advice on protection against fire and explosion
      Observe the general rules of industrial fire protection

   Advice on storage compatibility
      Do not store together with oxidizing agents.

8. Exposure controls/personal protection

   General protective measures
      Avoid contact with eyes and skin
Hygiene measures
  Keep away from foodstuffs and beverages.

Respiratory protection:
  Use respiratory protection in case of insufficient exhaust ventilation or prolonged exposure
  Full mask to standard DIN EN 136
  Filter A (organic gases and vapours) to standard DIN EN 141
  The use of filter apparatus presupposes that the environment atmosphere contains at least 17% oxygen by volume, and does not exceed the maximum gas concentration, usually 0.5% by volume. Relevant guidelines to be considered include EN 136/141/143/371/372 as well as other national regulations.

Hand protection:
  For long-term exposure:
  Butyl rubber gloves
  Minimum breakthrough time / gloves : 480 min
  Minimum thickness / gloves 0,7 mm

  For short-term exposure (splash protection):
  Nitrile rubber gloves.
  Minimum breakthrough time / gloves : 30 min
  Minimum thickness / gloves 0,4 mm

  These types of protective gloves are offered by various manufacturers. Please note the manufacturers’ detailed statements, especially about the minimum thickness and the minimum breakthrough time. Consider also the particular working conditions under which the gloves are being used.

Eye protection:
  safety glasses

Body protection:
  protective clothing

9. Physical and chemical properties

Form:
  Liquid

Colour:
  yellowish

Odour:
  characteristic

Solidifying Point:
  -30 °C
  Method : DIN 51583

Boiling temperature:
  approx. 113 °C ( 1.013 mbar)
  Method : ASTM D 1120

Flash point:
  > 100 °C
  Method : ISO 2592 (open cup)

Ignition temperature:
  > 450 °C
  Method : DIN 51794

Oxidizing properties:
  Not applicable

Self-ignition temperature:
  not self-igniting
Lower explosion limit : Not applicable
Upper explosion limit : Not applicable
Evaporation rate : Not applicable
Vapour pressure : < 1 mbar (20 °C)
Method : Calculated by Syracuse.
Density : approx. 1.10 g/cm³ (20 °C)
Method : DIN 51757
Bulk density : Not applicable
Vapour density in relation to air : Not applicable
Solubility in water : (20 °C)
miscible in all proportions
Soluble in ... : fat
not determined
pH value : approx. 8.5 (20 °C, 20 g/l)
Method : DIN EN 1262
Octanol/water partition coefficient (log Pow) : Not applicable
Viscosity (kinematic) : approx. 350 mm²/s (20 °C)
Method : DIN 51562
Combustion number : Not applicable

10. Stability and reactivity

Thermal decomposition : approx. 250 °C
Method : DSC

Hazardous reactions
Reactions with oxidising agents.

11. Toxicological information

Acute oral toxicity : not determined
Acute inhalation toxicity : not determined
Acute dermal toxicity : not determined
Irritant effect on skin : not determined
Irritant effect on eyes : not determined
Sensitization : not determined
Mutagenicity : not determined
Remarks
The product was classified on the basis of the calculation procedure of the Dangerous Preparations Directive (1999/45/EC).

12. Ecological information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodegradability</td>
<td>&gt; 96 % (14 d)</td>
<td>OECD 302 B</td>
</tr>
<tr>
<td>Fish toxicity</td>
<td>LC50 &gt; 100 mg/l (96 h, zebra fish)</td>
<td>OECD 203</td>
</tr>
<tr>
<td>Bacteria toxicity</td>
<td>EC50 84 mg/l (30 min, Vibrio fisheri)</td>
<td>DIN EN ISO 11348-2</td>
</tr>
<tr>
<td>Dissolved Organic carbon (DOC)</td>
<td>387 mg/g</td>
<td>DIN/EN 1484</td>
</tr>
<tr>
<td>Chemical oxygen demand (COD)</td>
<td>1.479 mg/g</td>
<td>ISO/DIS 15705</td>
</tr>
</tbody>
</table>

13. Disposal considerations
Product
In accordance with local authority regulations, take to special waste incineration plant

14. Transport information

<table>
<thead>
<tr>
<th>Classifications</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>not restricted</td>
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<tr>
<td>ADNR</td>
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<tr>
<td>RID</td>
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<tr>
<td>IATA</td>
<td>not restricted</td>
</tr>
<tr>
<td>IMDG</td>
<td>not restricted</td>
</tr>
</tbody>
</table>

15. Regulatory information

Labelling in accordance with EC-Directives
hazard warning labelling compulsory
Classification according to the calculation procedure of the Dangerous Preparations Directive (1999/45/EC).

Hazard symbols
Xn  Harmful

Hazardous component(s) to be indicated on label
Sodium-2-ethylhexanoate
Methyl-1H-benzotriazole
R phrases
63 Possible risk of harm to the unborn child.

S phrases
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28.2 After contact with skin, wash immediately with water and soap.
37/39 Wear suitable gloves and eye/face protection.

16. Other information
Text of the R-phrases which are allocated to the ingredients/components mentioned in section 2 of this Safety Data Sheet.
20/22 Harmful by inhalation and if swallowed.
36 Irritating to eyes.
63 Possible risk of harm to the unborn child.

The data are based on the current state of our knowledge, and are intended to describe the product with regard to the requirements of safety. The data should not be taken to imply any guarantee of a particular or general specification. It is the responsibility of the user of the product to ensure to his satisfaction that the product is suitable for the intended purpose and method of use. We do not accept responsibility for any harm caused by the use of this information. In all cases, our general conditions of sale apply.