# OneDay ChIP kit

## C01010080

### Flyleaf

Date of compilation: 2020-06-23

## Bill of materials

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>Identifier</th>
<th>Number of pieces</th>
<th>Classification acc. to GHS</th>
<th>Pictograms</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChIP Buffer 5x</td>
<td></td>
<td>1</td>
<td>Eye Dam. 1 / H318 Aquatic Chronic 2 / H411</td>
<td></td>
<td>2 – 11</td>
</tr>
<tr>
<td>Protease Inhibitor Mix</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>12 – 20</td>
</tr>
<tr>
<td>Ab binding beads</td>
<td></td>
<td>1</td>
<td>Flam. Liq. 2 / H225</td>
<td></td>
<td>21 – 31</td>
</tr>
<tr>
<td>rabbit IgG</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>32 – 40</td>
</tr>
<tr>
<td>5% BSA</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>41 – 48</td>
</tr>
<tr>
<td>DNA purifying slurry</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>49 – 56</td>
</tr>
<tr>
<td>proteinase K</td>
<td></td>
<td>1</td>
<td>Resp. Sens. 1 / H334</td>
<td></td>
<td>57 – 65</td>
</tr>
<tr>
<td>ChIP-seq grade water</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>66 – 73</td>
</tr>
</tbody>
</table>

United Kingdom
DIAGENODE 000383 KIT-07
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 product identifier

trade name: ChIP Buffer 5x
registration number (REACH): not relevant (mixture)

1.2 relevant identified uses of the substance or mixture and uses advised against

relevant identified uses: for research use only, not for use in diagnostic or therapeutic procedures.

1.3 details of the supplier of the safety data sheet

Diagenode SA
LIEGE SCIENCE PARK Rue du Bois Saint-Jean, 3
4102 Seraing
Belgium

telephone: +32 4 364 20 50
email: info@diagenode.com

1.4 emergency telephone number

emergency information service: +32 4 364 20 50
this number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

<table>
<thead>
<tr>
<th>poison centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>country</td>
</tr>
<tr>
<td>United Kingdom</td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1 classification of the substance or mixture

classification according to Regulation (EC) No 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>section</th>
<th>hazard class</th>
<th>category</th>
<th>hazard class and category</th>
<th>hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3</td>
<td>serious eye damage/eye irritation</td>
<td>1</td>
<td>Eye Dam. 1</td>
<td>H318</td>
</tr>
<tr>
<td>4.1C</td>
<td>hazardous to the aquatic environment - chronic hazard</td>
<td>2</td>
<td>Aquatic Chronic 2</td>
<td>H411</td>
</tr>
</tbody>
</table>

for full text of abbreviations: see SECTION 16.

the most important adverse physicochemical, human health and environmental effects spillage and fire water can cause pollution of watercourses.

2.2 label elements

labelling according to Regulation (EC) No 1272/2008 (CLP)

- signal word: danger
- pictograms: GHS05, GHS09
SECTION 3: Composition/information on ingredients

3.1 substances

not relevant (mixture)

3.2 mixtures
description of the mixture

<table>
<thead>
<tr>
<th>name of substance</th>
<th>identifier</th>
<th>wt%</th>
<th>classification acc. to GHS</th>
<th>pictograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100</td>
<td>CAS No 9002-93-1</td>
<td>≤5</td>
<td>Acute Tox. 4 / H302</td>
<td><img src="image" alt="Acute Tox. 4 / H302" /></td>
</tr>
<tr>
<td></td>
<td>EC No 618-344-0</td>
<td></td>
<td>Skin Irrit. 2 / H315</td>
<td><img src="image" alt="Skin Irrit. 2 / H315" /></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1 / H318</td>
<td><img src="image" alt="Eye Dam. 1 / H318" /></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1 / H400</td>
<td><img src="image" alt="Aquatic Acute 1 / H400" /></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 1 / H410</td>
<td><img src="image" alt="Aquatic Chronic 1 / H410" /></td>
</tr>
<tr>
<td>Nonylphenol, ethoxylated</td>
<td>CAS No 9016-45-9</td>
<td>≤5</td>
<td>Skin Irrit. 2 / H315</td>
<td><img src="image" alt="Skin Irrit. 2 / H315" /></td>
</tr>
<tr>
<td></td>
<td>EC No 500-024-6</td>
<td></td>
<td>Eye Irrit. 2 / H319</td>
<td><img src="image" alt="Eye Irrit. 2 / H319" /></td>
</tr>
<tr>
<td></td>
<td>REACH Reg. No 01-2119946371-39-xxxx</td>
<td></td>
<td>Aquatic Chronic 2 / H411</td>
<td><img src="image" alt="Aquatic Chronic 2 / H411" /></td>
</tr>
</tbody>
</table>

for full text of abbreviations: see SECTION 16.

SECTION 4: First aid measures

4.1 description of first aid measures

general notes

do not leave affected person unattended. remove victim out of the danger area. keep affected person warm, still and covered. take off immediately all contaminated clothing. in all cases of doubt, or when symptoms persist, seek medical advice. in case of unconsciousness place person in the recovery position. never give anything by mouth.

following inhalation

if breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. provide fresh air.

following skin contact

wash with plenty of soap and water.
following eye contact
remove contact lenses, if present and easy to do. Continue rinsing. irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

following ingestion
rinse mouth with water (only if the person is conscious). do NOT induce vomiting.

4.2 most important symptoms and effects, both acute and delayed
symptoms and effects are not known to date.

4.3 indication of any immediate medical attention and special treatment needed
none

SECTION 5: Firefighting measures

5.1 extinguishing media
suitable extinguishing media
water spray, BC-powder, carbon dioxide (CO2)

unsuitable extinguishing media
water jet

5.2 special hazards arising from the substance or mixture
hazardous combustion products
nitrogen oxides (NOx), carbon monoxide (CO), carbon dioxide (CO2)

5.3 advice for firefighters
in case of fire and/or explosion do not breathe fumes. co-ordinate firefighting measures to the fire surroundings. do not al-
low firefighting water to enter drains or water courses. collect contaminated firefighting water separately. fight fire with
normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 personal precautions, protective equipment and emergency procedures
for non-emergency personnel
remove persons to safety.

for emergency responders
wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 environmental precautions
keep away from drains, surface and ground water. retain contaminated washing water and dispose of it. if substance has
entered a water course or sewer, inform the responsible authority.

6.3 methods and material for containment and cleaning up
advice on how to contain a spill
covering of drains

advice on how to clean up a spill
wipe up with absorbent material [e.g. cloth, fleece]. collect spillage: sawdust, kieselgur [diatomite], sand, universal binder
appropriate containment techniques
use of adsorbent materials.

other information relating to spills and releases
place in appropriate containers for disposal. ventilate affected area.
6.4 reference to other sections
hazardous combustion products: see section 5. personal protective equipment: see section 8. incompatible materials: see section 10. disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 precautions for safe handling
recommendations
- measures to prevent fire as well as aerosol and dust generation
  use local and general ventilation. use only in well-ventilated areas.

advice on general occupational hygiene
wash hands after use. do not eat, drink and smoke in work areas. remove contaminated clothing and protective equipment before entering eating areas. never keep food or drink in the vicinity of chemicals. never place chemicals in containers that are normally used for food or drink. keep away from food, drink and animal feedingstuffs.

7.2 conditions for safe storage, including any incompatibilities
control of effects
protect against external exposure, such as frost
- packaging compatibilities
  only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 specific end use(s)
see section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 control parameters
this information is not available.

8.2 exposure controls
appropriate engineering controls
  general ventilation.

individual protection measures (personal protective equipment)
  eye/face protection
  wear eye/face protection.

  skin protection
  - hand protection
  wear suitable gloves. chemical protection gloves are suitable, which are tested according to EN 374. check leak-tightness/ impermeability prior to use. in the case of wanting to use the gloves again, clean them before taking off and air them well. for special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
  - other protection measures
  take recovery periods for skin regeneration. preventive skin protection (barrier creams/ointments) is recommended. wash hands thoroughly after handling.

  respiratory protection
  in case of inadequate ventilation wear respiratory protection.

  environmental exposure controls
  use appropriate container to avoid environmental contamination. keep away from drains, surface and ground water.
### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>colour</td>
<td>colourless</td>
</tr>
<tr>
<td>odour</td>
<td>odourless</td>
</tr>
<tr>
<td><strong>Other safety parameters</strong></td>
<td></td>
</tr>
<tr>
<td>pH (value)</td>
<td>not determined</td>
</tr>
<tr>
<td>melting point/freezing point</td>
<td>not determined</td>
</tr>
<tr>
<td>initial boiling point and boiling range</td>
<td>not determined</td>
</tr>
<tr>
<td>flash point</td>
<td>not determined</td>
</tr>
<tr>
<td>evaporation rate</td>
<td>not determined</td>
</tr>
<tr>
<td>flammability (solid, gas)</td>
<td>not relevant, (fluid)</td>
</tr>
<tr>
<td>explosive limits</td>
<td>not determined</td>
</tr>
<tr>
<td>vapour pressure</td>
<td>not determined</td>
</tr>
<tr>
<td>density</td>
<td>not determined</td>
</tr>
<tr>
<td>vapour density</td>
<td>this information is not available</td>
</tr>
<tr>
<td>relative density</td>
<td>information on this property is not available</td>
</tr>
<tr>
<td>solubility(ies)</td>
<td>not determined</td>
</tr>
<tr>
<td>partition coefficient</td>
<td></td>
</tr>
<tr>
<td>- n-octanol/water (log KOW)</td>
<td>this information is not available</td>
</tr>
<tr>
<td>auto-ignition temperature</td>
<td>not determined</td>
</tr>
<tr>
<td>viscosity</td>
<td>not determined</td>
</tr>
<tr>
<td>explosive properties</td>
<td>none</td>
</tr>
<tr>
<td>oxidising properties</td>
<td>none</td>
</tr>
</tbody>
</table>

#### 9.2 Other information

There is no additional information.
 SECTION 10: Stability and reactivity

10.1 reactivity
concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 chemical stability
see below "Conditions to avoid".

10.3 possibility of hazardous reactions
no known hazardous reactions.

10.4 conditions to avoid
there are no specific conditions known which have to be avoided.

10.5 incompatible materials
oxidisers

10.6 hazardous decomposition products
reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. hazardous combustion products: see section 5.

 SECTION 11: Toxicological information

11.1 information on toxicological effects
test data are not available for the complete mixture.
classification procedure
the method for classification of the mixture is based on ingredients of the mixture [additivity formula].
classification according to GHS (1272/2008/EC, CLP)
acute toxicity
shall not be classified as acutely toxic.
skin corrosion/irritation
shall not be classified as corrosive/irritant to skin.
serious eye damage/eye irritation
causes serious eye damage.
respiratory or skin sensitisation
shall not be classified as a respiratory or skin sensitizer.
germin cell mutagenicity
shall not be classified as germ cell mutagenic.
carcinogenicity
shall not be classified as carcinogenic.
reproductive toxicity
shall not be classified as a reproductive toxicant.
specific target organ toxicity - single exposure
shall not be classified as a specific target organ toxicant [single exposure].
specific target organ toxicity - repeated exposure
shall not be classified as a specific target organ toxicant [repeated exposure].
aspiration hazard
shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 toxicity
toxic to aquatic life with long lasting effects.

12.2 persistence and degradability
data are not available.

12.3 bioaccumulative potential
data are not available.

<table>
<thead>
<tr>
<th>name of substance</th>
<th>CAS No</th>
<th>BCF</th>
<th>log KOW</th>
<th>BOD5/COD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonylphenol, ethoxylated</td>
<td>9016-45-9</td>
<td>3.7 (25 °C)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.4 mobility in soil
data are not available.

12.5 results of PBT and vPvB assessment
data are not available.

12.6 other adverse effects
data are not available.

SECTION 13: Disposal considerations

13.1 waste treatment methods
sewage disposal-relevant information

do not empty into drains. avoid release to the environment. Refer to special instructions/safety data sheets.

waste treatment of containers/packagings
it is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.

rem:ks
please consider the relevant national or regional provisions. waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number
3082

14.2 UN proper shipping name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 transport hazard class(es)
class
9 (environmentally hazardous)

14.4 packing group
III (substance presenting low danger)

14.5 environmental hazards
hazardous to the aquatic environment
environmentally hazardous substance (aquatic environment) Triton X-100, Nonylphenol, ethoxylated

14.6 special precautions for user
provisions for dangerous goods (ADR) should be complied within the premises.

14.7 transport in bulk according to Annex II of MARPOL and the IBC Code
the cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations
transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

<table>
<thead>
<tr>
<th>UN number</th>
<th>3082</th>
</tr>
</thead>
<tbody>
<tr>
<td>proper shipping name</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</td>
</tr>
<tr>
<td>class</td>
<td>9</td>
</tr>
<tr>
<td>classification code</td>
<td>M6</td>
</tr>
<tr>
<td>packing group</td>
<td>III</td>
</tr>
<tr>
<td>danger label(s)</td>
<td>9, fish and tree</td>
</tr>
</tbody>
</table>

environmental hazards yes [hazardous to the aquatic environment]
special provisions (SP) 274, 335, 375, 601
excepted quantities (EQ) E1
limited quantities (LQ) 5 L
transport category (TC) 3
tunnel restriction code (TRC) -
hazard identification No 90
Emergency Action Code 3Z

International Maritime Dangerous Goods Code (IMDG)

<table>
<thead>
<tr>
<th>UN number</th>
<th>3082</th>
</tr>
</thead>
<tbody>
<tr>
<td>proper shipping name</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</td>
</tr>
<tr>
<td>class</td>
<td>9</td>
</tr>
<tr>
<td>marine pollutant</td>
<td>yes [hazardous to the aquatic environment]</td>
</tr>
<tr>
<td>packing group</td>
<td>III</td>
</tr>
<tr>
<td>danger label(s)</td>
<td>9, fish and tree</td>
</tr>
</tbody>
</table>

special provisions (SP) 274, 335, 969
excepted quantities (EQ) E1
limited quantities (LQ) 5 L
EmS F-A, S-F
stowage category A
International Civil Aviation Organization (ICAO-IATA/DGR)

UN number: 3082
proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
class: 9
environmental hazards: yes (hazardous to the aquatic environment)
packing group: III
danger label(s): 9, fish and tree

special provisions [SP]: A97, A158, A197
excepted quantities [EQ]: E1
limited quantities [LQ]: 30 kg

SECTION 15: Regulatory information

15.1 safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical Safety Assessment

chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

abbreviations and acronyms

<table>
<thead>
<tr>
<th>abbr.</th>
<th>descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox.</td>
<td>Acute toxicity</td>
</tr>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures [European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways]</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route [European Agreement concerning the International Carriage of Dangerous Goods by Road]</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>Hazardous to the aquatic environment - acute hazard</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>Hazardous to the aquatic environment - chronic hazard</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>BOD</td>
<td>Biochemical Oxygen Demand</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service [service that maintains the most comprehensive list of chemical substances]</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical oxygen demand</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations [see IATA/DGR]</td>
</tr>
<tr>
<td>EC No</td>
<td>The EC Inventory [EINECS, ELINCS and the NLP-list] is the source for the seven-digit EC number, an identifier of substances commercially available within the EU [European Union]</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>EmS</td>
<td>Emergency Schedule</td>
</tr>
<tr>
<td>Eye Dam.</td>
<td>Seriously damaging to the eye</td>
</tr>
</tbody>
</table>
**Safety Data Sheet**
according to Regulation (EC) No. 1907/2006 (REACH)

**ChIP Buffer 5x**

<table>
<thead>
<tr>
<th>abbr.</th>
<th>descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Irrit.</td>
<td>Irritant to the eye</td>
</tr>
<tr>
<td>GHS</td>
<td>“Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>index No</td>
<td>The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation [EC] No 1272/2008</td>
</tr>
<tr>
<td>log KOW</td>
<td>n-Octanol/water</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of “Marine Pollutant”)</td>
</tr>
<tr>
<td>NLP</td>
<td>No-Longer Polymer</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Reglement concernant le transport International ferroviaire des marchandises Dangereuses [Regulations concerning the International carriage of Dangerous goods by Rail]</td>
</tr>
<tr>
<td>Skin Corr.</td>
<td>Corrosive to skin</td>
</tr>
<tr>
<td>Skin Irrit.</td>
<td>Irritant to skin</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

**key literature references and sources for data**


**classification procedure**

physical and chemical properties: the classification is based on tested mixture.

health hazards, environmental hazards: the method for classification of the mixture is based on ingredients of the mixture (additively formula).

**list of relevant phrases (code and full text as stated in chapter 2 and 3)**

<table>
<thead>
<tr>
<th>code</th>
<th>text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

**disclaimer**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 product identifier

trade name
Protease Inhibitor Mix

registration number (REACH)
not relevant (mixture)

product code(s)
C12010010/C12010011/C12010012

1.2 relevant identified uses of the substance or mixture and uses advised against

relevant identified uses
for research use only, not for use in diagnostic or therapeutic procedures.

1.3 details of the supplier of the safety data sheet

Diagenode SA
LIEGE SCIENCE PARK Rue du Bois Saint-Jean, 3
4102 Seraing
Belgium

telephone: +32 4 364 20 50
e-mail: info@diagenode.com

1.4 emergency telephone number

emergency information service
+32 4 364 20 50
this number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

poison centre

<table>
<thead>
<tr>
<th>country</th>
<th>name</th>
<th>telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>National Poisons Information Service</td>
<td>111</td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1 classification of the substance or mixture

classification according to Regulation (EC) No 1272/2008 (CLP)
this mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 label elements

labelling according to Regulation (EC) No 1272/2008 (CLP)
not required

2.3 other hazards

results of PBT and vPvB assessment
this mixture does not contain any substances that are assessed to be a PBT or a vPvB.
SECTION 3: Composition/information on ingredients

3.1 substances
not relevant (mixture)

3.2 mixtures
description of the mixture

SECTION 4: First aid measures

4.1 description of first aid measures

general notes
  do not leave affected person unattended. remove victim out of the danger area. keep affected person warm, still and covered. take off immediately all contaminated clothing. in all cases of doubt, or when symptoms persist, seek medical advice. in case of unconsciousness place person in the recovery position. never give anything by mouth.

following inhalation
  if breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. provide fresh air.

following skin contact
  wash with plenty of soap and water.

following eye contact
  remove contact lenses, if present and easy to do. continue rinsing. irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

following ingestion
  rinse mouth with water (only if the person is conscious). do NOT induce vomiting.

4.2 most important symptoms and effects, both acute and delayed

  symptoms and effects are not known to date.

4.3 indication of any immediate medical attention and special treatment needed

  none

SECTION 5: Firefighting measures

5.1 extinguishing media

suitable extinguishing media
  water spray, BC-powder, carbon dioxide [CO2]

unsuitable extinguishing media
  water jet

5.2 special hazards arising from the substance or mixture

hazardous combustion products
  carbon monoxide [CO], carbon dioxide [CO2]

5.3 advice for firefighters

  in case of fire and/or explosion do not breathe fumes. co-ordinate firefighting measures to the fire surroundings. do not allow firefighting water to enter drains or water courses. collect contaminated firefighting water separately. fight fire with normal precautions from a reasonable distance.
SECTION 6: Accidental release measures

6.1 personal precautions, protective equipment and emergency procedures
   for non-emergency personnel
   remove persons to safety.
   for emergency responders
   wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 environmental precautions
   keep away from drains, surface and ground water. retain contaminated washing water and dispose of it.

6.3 methods and material for containment and cleaning up
   advice on how to contain a spill
   covering of drains
   advice on how to clean up a spill
   wipe up with absorbent material [e.g. cloth, fleece]. collect spillage: sawdust, kieselgur [diatomite], sand, universal binder
   appropriate containment techniques
   use of adsorbent materials.
   other information relating to spills and releases
   place in appropriate containers for disposal. ventilate affected area.

6.4 reference to other sections
   hazardous combustion products: see section 5. personal protective equipment: see section 8. incompatible materials: see section 10. disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 precautions for safe handling
   recommendations
   - measures to prevent fire as well as aerosol and dust generation
   use local and general ventilation. use only in well-ventilated areas.
   advice on general occupational hygiene
   wash hands after use. do not eat, drink and smoke in work areas. remove contaminated clothing and protective equipment before entering eating areas. never keep food or drink in the vicinity of chemicals. never place chemicals in containers that are normally used for food or drink. keep away from food, drink and animal feedingstuffs.

7.2 conditions for safe storage, including any incompatibilities

7.3 specific end use(s)
   see section 16 for a general overview.
SECTION 8: Exposure controls/personal protection

8.1 control parameters
this information is not available.

8.2 exposure controls
appropriate engineering controls
general ventilation.

individual protection measures (personal protective equipment)
eye/face protection
wear eye/face protection.

skin protection
- hand protection
wear suitable gloves. chemical protection gloves are suitable, which are tested according to EN 374. check leak-tightness/impermeability prior to use. in the case of wanting to use the gloves again, clean them before taking off and air them well. for special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- other protection measures
take recovery periods for skin regeneration. preventive skin protection (barrier creams/ointments) is recommended. wash hands thoroughly after handling.

respiratory protection
in case of inadequate ventilation wear respiratory protection.

environmental exposure controls
use appropriate container to avoid environmental contamination. keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 information on basic physical and chemical properties
appearance

<table>
<thead>
<tr>
<th>physical state</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>colour</td>
<td>colourless</td>
</tr>
<tr>
<td>odour</td>
<td>odourless</td>
</tr>
</tbody>
</table>

other safety parameters

<table>
<thead>
<tr>
<th>pH (value)</th>
<th>not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>melting point/freezing point</td>
<td>not determined</td>
</tr>
<tr>
<td>initial boiling point and boiling range</td>
<td>not determined</td>
</tr>
<tr>
<td>flash point</td>
<td>not determined</td>
</tr>
<tr>
<td>evaporation rate</td>
<td>not determined</td>
</tr>
<tr>
<td>flammability (solid, gas)</td>
<td>not relevant, (fluid)</td>
</tr>
</tbody>
</table>
explosive limits | not determined
---|---
vapour pressure | not determined
density | not determined
vapour density | this information is not available
relative density | information on this property is not available
solubility(ies) | not determined

partition coefficient

- n-octanol/water (log KOW) | this information is not available
auto-ignition temperature | not determined
viscosity | not determined
explosive properties | none
oxidising properties | none

9.2 other information | there is no additional information

SECTION 10: Stability and reactivity

10.1 reactivity
concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 chemical stability
the material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 possibility of hazardous reactions
no known hazardous reactions.

10.4 conditions to avoid
there are no specific conditions known which have to be avoided.

10.5 incompatible materials
oxidisers

10.6 hazardous decomposition products
reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. hazardous combustion products: see section 5.
SECTION 11: Toxicological information

11.1 information on toxicological effects

test data are not available for the complete mixture.

classification procedure
the method for classification of the mixture is based on ingredients of the mixture [additivity formula].

classification according to GHS (1272/2008/EC, CLP)
this mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

acute toxicity
shall not be classified as acutely toxic.

skin corrosion/irritation
shall not be classified as corrosive/irritant to skin.

serious eye damage/eye irritation
shall not be classified as seriously damaging to the eye or eye irritant.

respiratory or skin sensitisation
shall not be classified as a respiratory or skin sensitiser.

germ cell mutagenicity
shall not be classified as germ cell mutagenic.

carcinogenicity
shall not be classified as carcinogenic.

reproductive toxicity
shall not be classified as a reproductive toxicant.

specific target organ toxicity - single exposure
shall not be classified as a specific target organ toxicant [single exposure].

specific target organ toxicity - repeated exposure
shall not be classified as a specific target organ toxicant [repeated exposure].

aspiration hazard
shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 toxicity
shall not be classified as hazardous to the aquatic environment.

12.2 persistence and degradability
data are not available.

12.3 bioaccumulative potential
data are not available.

12.4 mobility in soil
data are not available.

12.5 results of PBT and vPvB assessment
data are not available.
12.6 other adverse effects

data are not available.

SECTION 13: Disposal considerations

13.1 waste treatment methods

sewage disposal-relevant information

do not empty into drains. avoid release to the environment. Refer to special instructions/safety data sheets.

waste treatment of containers/packagings

completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.

remarks

please consider the relevant national or regional provisions. waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number

not subject to transport regulations

14.2 UN proper shipping name

not relevant

14.3 transport hazard class(es)

none

14.4 packing group

not assigned to a packing group

14.5 environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

14.6 special precautions for user

there is no additional information.

14.7 transport in bulk according to Annex II of MARPOL and the IBC Code

the cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)

not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)

not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical Safety Assessment

chemical safety assessments for substances in this mixture were not carried out.
### SECTION 16: Other information

<table>
<thead>
<tr>
<th>section</th>
<th>former entry (text/value)</th>
<th>actual entry (text/value)</th>
<th>safety-relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>trade name: protease inhibitor coctail</td>
<td>trade name: Protease Inhibitor Mix</td>
<td>yes</td>
</tr>
<tr>
<td>1.1</td>
<td>product code(s): C12010011</td>
<td>product code(s): C12010010/C12010011/C12010012</td>
<td>yes</td>
</tr>
<tr>
<td>2.3</td>
<td>other hazards: this material is combustible, but will not ignite readily.</td>
<td>other hazards</td>
<td>yes</td>
</tr>
<tr>
<td>3.2</td>
<td>mixtures</td>
<td>mixtures: description of the mixture</td>
<td>yes</td>
</tr>
<tr>
<td>9.1</td>
<td>initial boiling point and boiling range: 189 °C at 1,013 hPa</td>
<td>initial boiling point and boiling range: not determined</td>
<td>yes</td>
</tr>
<tr>
<td>9.1</td>
<td>flash point: 87 °C at 1,013 hPa</td>
<td>flash point: not determined</td>
<td>yes</td>
</tr>
<tr>
<td>9.1</td>
<td>explosive limits</td>
<td>explosive limits: not determined</td>
<td>yes</td>
</tr>
<tr>
<td>9.1</td>
<td>lower explosion limit (LEL): 2.6 vol%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.1</td>
<td>upper explosion limit (UEL): 28.5 vol%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.1</td>
<td>vapour pressure: 0.417 mmHg at 20 °C</td>
<td>vapour pressure: not determined</td>
<td>yes</td>
</tr>
<tr>
<td>9.1</td>
<td>auto-ignition temperature: 300 °C (auto-ignition temperature [liquids and gases])</td>
<td>auto-ignition temperature: not determined</td>
<td>yes</td>
</tr>
<tr>
<td>9.2</td>
<td>other information</td>
<td>other information: there is no additional information</td>
<td>yes</td>
</tr>
<tr>
<td>9.2</td>
<td>temperature class [EU, acc. to ATEX]: T3 (maximum permissible surface temperature on the equipment: 200°C)</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>14.3</td>
<td>transport hazard class(es): not assigned</td>
<td>transport hazard class(es): none</td>
<td>yes</td>
</tr>
<tr>
<td>14.4</td>
<td>packing group: not assigned</td>
<td>packing group: not assigned to a packing group</td>
<td>yes</td>
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<tr>
<td>14.7</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>14.7</td>
<td>identifier number: 9003</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>14.7</td>
<td>proper shipping name: SUBSTANCES WITH A FLASH-POINT ABOVE 60 °C AND NOT MORE THAN 100 °C</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>14.7</td>
<td>class: 9</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>14.7</td>
<td>number of cones/blue lights: 0</td>
<td></td>
<td>yes</td>
</tr>
</tbody>
</table>
### Protease Inhibitor Mix

**Safety Data Sheet**

according to Regulation (EC) No. 1907/2006 (REACH)

<table>
<thead>
<tr>
<th>section</th>
<th>former entry (text/value)</th>
<th>actual entry (text/value)</th>
<th>safety-relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.7</td>
<td>transport of dangerous goods by road, rail and inland waterway [ADR/RID/ADN]: not subject to ADR. not subject to RID.</td>
<td>transport of dangerous goods by road, rail and inland waterway [ADR/RID/ADN]: not subject to ADR, RID and ADN.</td>
<td>yes</td>
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</tbody>
</table>

### abbreviations and acronyms

<table>
<thead>
<tr>
<th>abbr.</th>
<th>descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures [European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways]</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route [European Agreement concerning the International Carriage of Dangerous Goods by Road]</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations (see IATA/DGR)</td>
</tr>
<tr>
<td>GHS</td>
<td>“Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of “Marine Pollutant”)</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses [Regulations concerning the International carriage of Dangerous goods by Rail]</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

### key literature references and sources for data


### classification procedure

physical and chemical properties: the classification is based on tested mixture.

health hazards, environmental hazards: the method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### disclaimer

this information is based upon the present state of our knowledge. this SDS has been compiled and is solely intended for this product.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 product identifier
  Ab binding beads
  trade name
  Ab binding beads
  registration number (REACH) not relevant (mixture)

1.2 relevant identified uses of the substance or mixture and uses advised against
  relevant identified uses
  for research use only, not for use in diagnostic or therapeutic procedures.

1.3 details of the supplier of the safety data sheet
  Diagenode SA
  LIEGE SCIENCE PARK Rue du Bois Saint-Jean, 3
  4102 Seraing
  Belgium
  telephone: +32 4 364 20 50
  e-mail: info@diagenode.com

1.4 emergency telephone number
  emergency information service +32 4 364 20 50
  this number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM
  poison centre
  country United Kingdom
  name National Poisons Information Service
  telephone 111

SECTION 2: Hazards identification

2.1 classification of the substance or mixture
  classification according to Regulation (EC) No 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>section</th>
<th>hazard class</th>
<th>category</th>
<th>hazard class and category</th>
<th>hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6</td>
<td>flammable liquid</td>
<td>2</td>
<td>Flam. Liq. 2</td>
<td>H225</td>
</tr>
</tbody>
</table>

for full text of abbreviations: see SECTION 16.

the most important adverse physicochemical, human health and environmental effects
the product is combustible and can be ignited by potential ignition sources.

2.2 label elements
  labelling according to Regulation (EC) No 1272/2008 (CLP)
  - signal word danger
  - pictograms
    GHS02
  - hazard statements
    H225 highly flammable liquid and vapour.
- precautionary statements
P210 keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 keep container tightly closed.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P370 + P378 in case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403 + P235 store in a well-ventilated place. Keep cool.
P501 dispose of contents/container to industrial combustion plant.

2.3 other hazards
results of PBT and vPvB assessment
this mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 substances
not relevant (mixture)

3.2 mixtures
description of the mixture

<table>
<thead>
<tr>
<th>name of substance</th>
<th>identifier</th>
<th>wt%</th>
<th>classification acc. to GHS</th>
<th>pictograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>CAS No 64-17-5</td>
<td>15 – 20</td>
<td>Flam. Liq. 2 / H225</td>
<td><img src="" alt="Flammable" /></td>
</tr>
<tr>
<td></td>
<td>EC No 200-578-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>index No 603-002-00-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REACH Reg. No 01-2119457610-43-xxxx</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

for full text of abbreviations: see SECTION 16.

SECTION 4: First aid measures

4.1 description of first aid measures
general notes
do not leave affected person unattended. remove victim out of the danger area. keep affected person warm, still and covered. take off immediately all contaminated clothing. in all cases of doubt, or when symptoms persist, seek medical advice. in case of unconsciousness place person in the recovery position. never give anything by mouth.

following inhalation
if breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. provide fresh air.

following skin contact
wash with plenty of soap and water.

following eye contact
remove contact lenses, if present and easy to do. continue rinsing. irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

following ingestion
rinse mouth with water (only if the person is conscious). do NOT induce vomiting.

4.2 most important symptoms and effects, both acute and delayed
symptoms and effects are not known to date.
4.3 indication of any immediate medical attention and special treatment needed
none

SECTION 5: Firefighting measures

5.1 extinguishing media
suitable extinguishing media
water spray, BC-powder, carbon dioxide (CO2)
unsuitable extinguishing media
water jet

5.2 special hazards arising from the substance or mixture
in case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. solvent vapours are heavier than air and may spread along floors. places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

hazardous combustion products
carbon monoxide (CO), carbon dioxide (CO2)

5.3 advice for firefighters
in case of fire and/or explosion do not breathe fumes. co-ordinate firefighting measures to the fire surroundings. do not allow firefighting water to enter drains or water courses. collect contaminated firefighting water separately. fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 personal precautions, protective equipment and emergency procedures
for non-emergency personnel
remove persons to safety.
for emergency responders
wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 environmental precautions
keep away from drains, surface and ground water. retain contaminated washing water and dispose of it.

6.3 methods and material for containment and cleaning up
advice on how to contain a spill
covering of drains
advice on how to clean up a spill
wipe up with absorbent material [e.g. cloth, fleece]. collect spillage: sawdust, kieselgur (diatomite), sand, universal binder
appropriate containment techniques
use of adsorbent materials.
other information relating to spills and releases
place in appropriate containers for disposal. ventilate affected area.

6.4 reference to other sections
hazardous combustion products: see section 5. personal protective equipment: see section 8. incompatible materials: see section 10. disposal considerations: see section 13.
SECTION 7: Handling and storage

7.1 precautions for safe handling

recommendations
- measures to prevent fire as well as aerosol and dust generation
  use local and general ventilation. avoidance of ignition sources. keep away from sources of ignition. - No smoking. take precautionary measures against static discharge. use only in well-ventilated areas. due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. ground/bond container and receiving equipment. use explosion-proof electrical/ventilating/lighting/equipment. use only non-sparking tools.

- specific notes/details
  places which are not ventilated, e.g. ventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. vapours are heavier than air, spread along floors and form explosive mixtures with air. vapours may form explosive mixtures with air.

advice on general occupational hygiene
wash hands after use. do not eat, drink and smoke in work areas. remove contaminated clothing and protective equipment before entering eating areas. never keep food or drink in the vicinity of chemicals. never place chemicals in containers that are normally used for food or drink. keep away from food, drink and animal feedingstuffs.

7.2 conditions for safe storage, including any incompatibilities

managing of associated risks
- explosive atmospheres
  keep container tightly closed and in a well-ventilated place. use local and general ventilation. keep cool. protect from sunlight.

- flammability hazards
  keep away from sources of ignition - No smoking. keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. take precautionary measures against static discharge. protect from sunlight.

control of effects
protect against external exposure, such as
- ventilation requirements
  use local and general ventilation. ground/bond container and receiving equipment.

- packaging compatibilities
  only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 specific end use(s)

see section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 control parameters

occupational exposure limit values (Workplace Exposure Limits)

<table>
<thead>
<tr>
<th>country</th>
<th>name of agent</th>
<th>CAS No</th>
<th>identifier</th>
<th>TWA [ppm]</th>
<th>TWA [mg/m³]</th>
<th>STEL [ppm]</th>
<th>STEL [mg/m³]</th>
<th>Ceiling-C [ppm]</th>
<th>Ceiling-C [mg/m³]</th>
<th>notation</th>
<th>source</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB</td>
<td>ethanol</td>
<td>64-17-5</td>
<td>WEL</td>
<td>1,000</td>
<td>1,920</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EH40/2005</td>
</tr>
</tbody>
</table>

notation
- Ceiling-C: ceiling value is a limit value above which exposure should not occur
- STEL: short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
- TWA: time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)
8.2 exposure controls

appropriate engineering controls
- general ventilation.

individual protection measures (personal protective equipment)
- eye/face protection
  wear eye/face protection.

skin protection
- hand protection
  wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- other protection measures
  take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

respiratory protection
- in case of inadequate ventilation wear respiratory protection.

environmental exposure controls
- use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 information on basic physical and chemical properties

appearance

<table>
<thead>
<tr>
<th>physical state</th>
<th>liquid (suspension)</th>
</tr>
</thead>
<tbody>
<tr>
<td>colour</td>
<td>white</td>
</tr>
<tr>
<td>odour</td>
<td>odourless</td>
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</table>

other safety parameters

<table>
<thead>
<tr>
<th>parameter</th>
<th>value</th>
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<tbody>
<tr>
<td>pH (value)</td>
<td>not determined</td>
</tr>
<tr>
<td>melting point/freezing point</td>
<td>not determined</td>
</tr>
<tr>
<td>initial boiling point and boiling range</td>
<td>not determined</td>
</tr>
<tr>
<td>flash point</td>
<td>not determined</td>
</tr>
<tr>
<td>evaporation rate</td>
<td>not determined</td>
</tr>
<tr>
<td>flammability (solid, gas)</td>
<td>not relevant, (fluid)</td>
</tr>
<tr>
<td>explosive limits</td>
<td>not determined</td>
</tr>
<tr>
<td>vapour pressure</td>
<td>not determined</td>
</tr>
<tr>
<td>density</td>
<td>not determined</td>
</tr>
</tbody>
</table>
Ab binding beads

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>vapour density</td>
<td>this information is not available</td>
</tr>
<tr>
<td>relative density</td>
<td>information on this property is not available</td>
</tr>
<tr>
<td>solubility/ies</td>
<td>not determined</td>
</tr>
<tr>
<td>partition coefficient</td>
<td></td>
</tr>
<tr>
<td>- n-octanol/water (log KOW)</td>
<td>this information is not available</td>
</tr>
<tr>
<td>auto-ignition temperature</td>
<td>not determined</td>
</tr>
<tr>
<td>viscosity</td>
<td>not determined</td>
</tr>
<tr>
<td>explosive properties</td>
<td>none</td>
</tr>
<tr>
<td>oxidising properties</td>
<td>none</td>
</tr>
</tbody>
</table>

9.2 other information there is no additional information

SECTION 10: Stability and reactivity

10.1 reactivity

concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". the mixture contains reactive substance(s). risk of ignition.

if heated:

risk of ignition

10.2 chemical stability

see below "Conditions to avoid".

10.3 possibility of hazardous reactions

no known hazardous reactions.

10.4 conditions to avoid

keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

hints to prevent fire or explosion

use explosion-proof electrical/ventilating/lighting/equipment. use only non-sparking tools. take precautionary measures against static discharge.

10.5 incompatible materials

oxidisers

10.6 hazardous decomposition products

reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. hazardous combustion products: see section 5.
SECTION 11: Toxicological information

11.1 information on toxicological effects
test data are not available for the complete mixture.
classification procedure
the method for classification of the mixture is based on ingredients of the mixture (additivity formula).
classification according to GHS (1272/2008/EC, CLP)
acute toxicity
shall not be classified as acutely toxic.
skin corrosion/irritation
shall not be classified as corrosive/irritant to skin.
serious eye damage/eye irritation
shall not be classified as seriously damaging to the eye or eye irritant.
respiratory or skin sensitisation
shall not be classified as a respiratory or skin sensitiser.
germ cell mutagenicity
shall not be classified as germ cell mutagenic.
carcinogenicity
shall not be classified as carcinogenic.
reproductive toxicity
shall not be classified as a reproductive toxicant.
specific target organ toxicity - single exposure
shall not be classified as a specific target organ toxicant (single exposure).
specific target organ toxicity - repeated exposure
shall not be classified as a specific target organ toxicant (repeated exposure).
aspiration hazard
shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 toxicity
shall not be classified as hazardous to the aquatic environment.
12.2 persistence and degradability
data are not available.
12.3 bioaccumulative potential
data are not available.
12.4 mobility in soil
data are not available.
12.5 results of PBT and vPvB assessment
data are not available.
12.6 other adverse effects
data are not available.
SECTION 13: Disposal considerations

13.1 waste treatment methods

- waste treatment-relevant information
  - solvent reclamation/regeneration.

- sewage disposal-relevant information
  - do not empty into drains. avoid release to the environment. Refer to special instructions/safety data sheets.

- waste treatment of containers/packagings
  - it is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.

remarks

please consider the relevant national or regional provisions. waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number

1170

14.2 UN proper shipping name

ETHANOL

14.3 transport hazard class(es)

class 3 (flammable liquids)

14.4 packing group

II (substance presenting medium danger)

14.5 environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

14.6 special precautions for user

provisions for dangerous goods [ADR] should be complied within the premises.

14.7 transport in bulk according to Annex II of MARPOL and the IBC Code

the cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations
transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

| UN number | 1170 |
| proper shipping name | ETHANOL |
| class | 3 |
| classification code | F1 |
| packing group | II |
| danger label(s) | 3 |

- special provisions [SP] 144, 601
- excepted quantities [EQ] E2
- limited quantities [LQ] 1 L
- transport category [TC] 2
tunnel restriction code [TRC]  
D/E  
hazard identification No  
33  
Emergency Action Code  
2YE  

International Maritime Dangerous Goods Code (IMDG)  
UN number  
1170  
proper shipping name  
ETHANOL  
class  
3  
marine pollutant  
-  
packing group  
II  
danger label(s)  
3  

special provisions [SP]  
144  
extpected quantities (EQ)  
E2  
limited quantities (LQ)  
1 L  
EmS  
F-E, S-D  
stowage category  
A  

International Civil Aviation Organization (ICAO-IATA/DGR)  
UN number  
1170  
proper shipping name  
Ethanol  
class  
3  
packing group  
II  
danger label(s)  
3  

special provisions [SP]  
A3, A58, A180  
extpected quantities (EQ)  
E2  
limited quantities (LQ)  
1 L  

SECTION 15: Regulatory information  

15.1 safety, health and environmental regulations/legislation specific for the substance or mixture  

15.2 Chemical Safety Assessment  
chemical safety assessments for substances in this mixture were not carried out.
Ab binding beads

SECTION 16: Other information

Abbreviations and acronyms

<table>
<thead>
<tr>
<th>abbr.</th>
<th>descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
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<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>Ceiling-C</td>
<td>Ceiling value</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations (see IATA/DGR)</td>
</tr>
<tr>
<td>EC No</td>
<td>The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>EmS</td>
<td>Emergency Schedule</td>
</tr>
<tr>
<td>Flam. Liq.</td>
<td>Flammable liquid</td>
</tr>
<tr>
<td>GHS</td>
<td>“Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>index No</td>
<td>The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation [EC] No 1272/2008</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of “Marine Pollutant”)</td>
</tr>
<tr>
<td>NLP</td>
<td>No-Longer Polymer</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts per million</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses [Regulations concerning the International carriage of Dangerous goods by Rail]</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term exposure limit</td>
</tr>
<tr>
<td>TWA</td>
<td>Time-weighted average</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
<tr>
<td>WEL</td>
<td>Workplace exposure limit</td>
</tr>
</tbody>
</table>

Key literature references and sources for data


classification procedure
physical and chemical properties: the classification is based on tested mixture.
health hazards, environmental hazards: the method for classification of the mixture is based on ingredients of the mixture [additivity formula].

list of relevant phrases (code and full text as stated in chapter 2 and 3)

<table>
<thead>
<tr>
<th>code</th>
<th>text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
</tbody>
</table>

disclaimer
this information is based upon the present state of our knowledge. this SDS has been compiled and is solely intended for this product.
**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1 **product identifier**
- trade name: rabbit IgG
- registration number (REACH): not relevant (mixture)
- product code(s): C15410206

1.2 **relevant identified uses of the substance or mixture and uses advised against**
- relevant identified uses: for research use only, not for use in diagnostic or therapeutic procedures.

1.3 **details of the supplier of the safety data sheet**
- Diagenode SA
  - LIEGE SCIENCE PARK Rue du Bois Saint-Jean, 3
  - 4102 Seraing
  - Belgium
- telephone: +32 4 364 20 50
- e-mail: info@diagenode.com

1.4 **emergency telephone number**
- emergency information service: +32 4 364 20 50
- this number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

<table>
<thead>
<tr>
<th>poison centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>country</td>
</tr>
<tr>
<td>United Kingdom</td>
</tr>
</tbody>
</table>

**SECTION 2: Hazards identification**

2.1 **classification of the substance or mixture**
- classification according to Regulation (EC) No 1272/2008 (CLP)
  - this mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 **label elements**
- labelling according to Regulation (EC) No 1272/2008 (CLP)
  - not required

2.3 **other hazards**
- results of PBT and vPvB assessment
  - this mixture does not contain any substances that are assessed to be a PBT or a vPvB.
SECTION 3: Composition/information on ingredients

3.1 substances
   not relevant [mixture]

3.2 mixtures
description of the mixture

SECTION 4: First aid measures

4.1 description of first aid measures
   general notes
   do not leave affected person unattended. remove victim out of the danger area. keep affected person warm, still and covered. take off immediately all contaminated clothing. in all cases of doubt, or when symptoms persist, seek medical advice. in case of unconsciousness place person in the recovery position. Never give anything by mouth.

   following inhalation
   if breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. provide fresh air.

   following skin contact
   wash with plenty of soap and water.

   following eye contact
   remove contact lenses, if present and easy to do. Continue rinsing. irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

   following ingestion
   rinse mouth with water (only if the person is conscious). do NOT induce vomiting.

4.2 most important symptoms and effects, both acute and delayed
   symptoms and effects are not known to date.

4.3 indication of any immediate medical attention and special treatment needed
   none

SECTION 5: Firefighting measures

5.1 extinguishing media
   suitable extinguishing media
   water spray, BC-powder, carbon dioxide (CO2)

   unsuitable extinguishing media
   water jet

5.2 special hazards arising from the substance or mixture
   hazardous combustion products
   nitrogen oxides (NOx)

5.3 advice for firefighters
   in case of fire and/or explosion do not breathe fumes. co-ordinate firefighting measures to the fire surroundings. do not allow firefighting water to enter drains or water courses. collect contaminated firefighting water separately. fight fire with normal precautions from a reasonable distance.
SECTION 6: Accidental release measures

6.1 personal precautions, protective equipment and emergency procedures
for non-emergency personnel
remove persons to safety.
for emergency responders
wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 environmental precautions
keep away from drains, surface and ground water. retain contaminated washing water and dispose of it.

6.3 methods and material for containment and cleaning up
advice on how to contain a spill
covering of drains
advice on how to clean up a spill
wipe up with absorbent material [e.g. cloth, fleece]. collect spillage: sawdust, kieselgur (diatomite), sand, universal binder
appropriate containment techniques
use of absorbent materials.
other information relating to spills and releases
place in appropriate containers for disposal. ventilate affected area.

6.4 reference to other sections
hazardous combustion products: see section 5. personal protective equipment: see section 8. incompatible materials: see section 10. disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 precautions for safe handling
recommendations
- measures to prevent fire as well as aerosol and dust generation
  use local and general ventilation. use only in well-ventilated areas.
advice on general occupational hygiene
wash hands after use. do not eat, drink and smoke in work areas. remove contaminated clothing and protective equipment before entering eating areas. never keep food or drink in the vicinity of chemicals. never place chemicals in containers that are normally used for food or drink. keep away from food, drink and animal feedingstuffs.

7.2 conditions for safe storage, including any incompatibilities
control of effects
protect against external exposure, such as frost

7.3 specific end use(s)
see section 16 for a general overview.
SECTION 8: Exposure controls/personal protection

8.1 control parameters

<table>
<thead>
<tr>
<th>country</th>
<th>name of agent</th>
<th>CAS No</th>
<th>identifier</th>
<th>TWA [ppm]</th>
<th>TWA [mg/m³]</th>
<th>STEL [ppm]</th>
<th>STEL [mg/m³]</th>
<th>Ceiling-C [ppm]</th>
<th>Ceiling-C [mg/m³]</th>
<th>notation</th>
<th>source</th>
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<tbody>
<tr>
<td>GB</td>
<td>sucrose</td>
<td>57-50-1</td>
<td>WEL</td>
<td>10</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EH40/2005</td>
</tr>
</tbody>
</table>

notation:
- Ceiling-C: ceiling value is a limit value above which exposure should not occur
- STEL: short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period [unless otherwise specified]
- TWA: time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

8.2 exposure controls

appropriate engineering controls
- general ventilation.

individual protection measures (personal protective equipment)
- eye/face protection
  - wear eye/face protection.

skin protection
- hand protection
  - wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- other protection measures
  - take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

respiratory protection
- in case of inadequate ventilation wear respiratory protection.

environmental exposure controls
- use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 information on basic physical and chemical properties

appearance

<table>
<thead>
<tr>
<th>physical state</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>colour</td>
<td>colourless</td>
</tr>
<tr>
<td>odour</td>
<td>odourless</td>
</tr>
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</table>
other safety parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (value)</td>
<td>not determined</td>
</tr>
<tr>
<td>melting point/freezing point</td>
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<tr>
<td>initial boiling point and boiling range</td>
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<tr>
<td>flash point</td>
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<tr>
<td>vapour pressure</td>
<td>not determined</td>
</tr>
<tr>
<td>density</td>
<td>not determined</td>
</tr>
<tr>
<td>vapour density</td>
<td>this information is not available</td>
</tr>
<tr>
<td>relative density</td>
<td>information on this property is not available</td>
</tr>
<tr>
<td>solubility(ies)</td>
<td>not determined</td>
</tr>
</tbody>
</table>

partition coefficient

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>- n-octanol/water (log KOW)</td>
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<tr>
<td>viscosity</td>
<td>not determined</td>
</tr>
<tr>
<td>explosive properties</td>
<td>none</td>
</tr>
<tr>
<td>oxidising properties</td>
<td>none</td>
</tr>
</tbody>
</table>

9.2 other information

there is no additional information

SECTION 10: Stability and reactivity

10.1 reactivity

centering incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 chemical stability

the material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 possibility of hazardous reactions

no known hazardous reactions.

10.4 conditions to avoid

there are no specific conditions known which have to be avoided.

10.5 incompatible materials

there is no additional information.
10.6 **hazardous decomposition products**
reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. hazardous combustion products: see section 5.

### SECTION 11: Toxicological information

11.1 **information on toxicological effects**
test data are not available for the complete mixture.

classification procedure
de the method for classification of the mixture is based on ingredients of the mixture (additivity formula).

classification according to GHS (1272/2008/EC, CLP)
this mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

acute toxicity
shall not be classified as acutely toxic.

skin corrosion/irritation
shall not be classified as corrosive/irritant to skin.

serious eye damage/eye irritation
shall not be classified as seriously damaging to the eye or eye irritant.

respiratory or skin sensitisation
shall not be classified as a respiratory or skin sensitiser.

germ cell mutagenicity
shall not be classified as germ cell mutagenic.

carcinogenicity
shall not be classified as carcinogenic.

reproductive toxicity
shall not be classified as a reproductive toxicant.

specific target organ toxicity - single exposure
shall not be classified as a specific target organ toxicant (single exposure).

specific target organ toxicity - repeated exposure
shall not be classified as a specific target organ toxicant (repeated exposure).

aspiration hazard
shall not be classified as presenting an aspiration hazard.

### SECTION 12: Ecological information

12.1 **toxicity**
shall not be classified as hazardous to the aquatic environment.

12.2 **persistence and degradability**
data are not available.

12.3 **bioaccumulative potential**
data are not available.

12.4 **mobility in soil**
data are not available.
12.5 results of PBT and vPvB assessment
data are not available.

12.6 other adverse effects
data are not available.

SECTION 13: Disposal considerations

13.1 waste treatment methods
sewage disposal-relevant information
do not empty into drains. avoid release to the environment. Refer to special instructions/safety data sheets.

waste treatment of containers/packagings
completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.

remarks
please consider the relevant national or regional provisions. waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number
not subject to transport regulations

14.2 UN proper shipping name
not relevant

14.3 transport hazard class(es)
none

14.4 packing group
not assigned to a packing group

14.5 environmental hazards
non-environmentally hazardous acc. to the dangerous goods regulations

14.6 special precautions for user
there is no additional information.

14.7 transport in bulk according to Annex II of MARPOL and the IBC Code
the cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations
transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)
not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)
not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)
not subject to ICAO-IATA.
**SECTION 15: Regulatory information**

15.1 safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

**abbreviations and acronyms**

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<th>descriptions of used abbreviations</th>
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<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures [European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways]</td>
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<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route [European Agreement concerning the International Carriage of Dangerous Goods by Road]</td>
</tr>
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<td>CAS</td>
<td>Chemical Abstracts Service [service that maintains the most comprehensive list of chemical substances]</td>
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<td>Ceiling-C</td>
<td>Ceiling value</td>
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<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations (see IATA/DGR)</td>
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<tr>
<td>GHS</td>
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<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships [abbr. of “Marine Pollutant”]</td>
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<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
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<tr>
<td>ppm</td>
<td>Parts per million</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses [Regulations concerning the International carriage of Dangerous goods by Rail]</td>
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<tr>
<td>STEL</td>
<td>Short-term exposure limit</td>
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<tr>
<td>TWA</td>
<td>Time-weighted average</td>
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<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
<tr>
<td>WEL</td>
<td>Workplace exposure limit</td>
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</table>

**key literature references and sources for data**


**classification procedure**

Physical and chemical properties: the classification is based on tested mixture.

Health hazards, environmental hazards: the method for classification of the mixture is based on ingredients of the mixture (additivity formula).
disclaimer
this information is based upon the present state of our knowledge. this SDS has been compiled and is solely intended for this product.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 product identifier
- trade name: 5% BSA
- registration number (REACH): not relevant (mixture)

1.2 relevant identified uses of the substance or mixture and uses advised against
- relevant identified uses: for research use only, not for use in diagnostic or therapeutic procedures.

1.3 details of the supplier of the safety data sheet
Diagenode SA
LIEGE SCIENCE PARK Rue du Bois Saint-Jean, 3
4102 Seraing
Belgium

- telephone: +32 4 364 20 50
- e-mail: info@diagenode.com

1.4 emergency telephone number
- emergency information service: +32 4 364 20 50
- this number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

<table>
<thead>
<tr>
<th>poison centre</th>
<th>country</th>
<th>name</th>
<th>telephone</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>United Kingdom</td>
<td>National Poisons Information Service</td>
<td>111</td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1 classification of the substance or mixture
- classification according to Regulation (EC) No 1272/2008 (CLP)
  - this mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 label elements
- labelling according to Regulation (EC) No 1272/2008 (CLP)
  - not required

2.3 other hazards
- results of PBT and vPvB assessment
  - this mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 substances
- not relevant (mixture)
3.2 mixtures

SECTION 4: First aid measures

4.1 description of first aid measures

general notes

- do not leave affected person unattended. remove victim out of the danger area. keep affected person warm, still and covered. take off immediately all contaminated clothing. in all cases of doubt, or when symptoms persist, seek medical advice. in case of unconsciousness place person in the recovery position. never give anything by mouth.

following inhalation

- if breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. provide fresh air.

following skin contact

- wash with plenty of soap and water.

following eye contact

- remove contact lenses, if present and easy to do. continue rinsing. irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

following ingestion

- rinse mouth with water (only if the person is conscious). do not induce vomiting.

4.2 most important symptoms and effects, both acute and delayed

symptoms and effects are not known to date.

4.3 indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 extinguishing media

- suitable extinguishing media
  - water spray, BC-powder, carbon dioxide (CO2)
- unsuitable extinguishing media
  - water jet

5.2 special hazards arising from the substance or mixture

- hazardous combustion products
  - carbon monoxide (CO), carbon dioxide (CO2)

5.3 advice for firefighters

- in case of fire and/or explosion do not breathe fumes. co-ordinate firefighting measures to the fire surroundings. do not allow firefighting water to enter drains or water courses. collect contaminated firefighting water separately. fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 personal precautions, protective equipment and emergency procedures

for non-emergency personnel

- remove persons to safety.

for emergency responders

- wear breathing apparatus if exposed to vapours/dust/spray/gases.
6.2 **environmental precautions**
keep away from drains, surface and ground water. retain contaminated washing water and dispose of it.

6.3 **methods and material for containment and cleaning up**
advice on how to contain a spill
covering of drains
advice on how to clean up a spill
wipe up with absorbent material (e.g. cloth, fleece). collect spillage: sawdust, kieselgur (diatomite), sand, universal binder
appropriate containment techniques
use of adsorbent materials.
other information relating to spills and releases
place in appropriate containers for disposal. ventilate affected area.

6.4 **reference to other sections**
hazardous combustion products: see section 5. personal protective equipment: see section 8. incompatible materials: see section 10. disposal considerations: see section 13.

---

**SECTION 7: Handling and storage**

7.1 **precautions for safe handling**
recommendations
- measures to prevent fire as well as aerosol and dust generation
  use local and general ventilation. use only in well-ventilated areas.

advice on general occupational hygiene
wash hands after use. do not eat, drink and smoke in work areas. remove contaminated clothing and protective equipment before entering eating areas. never keep food or drink in the vicinity of chemicals. never place chemicals in containers that are normally used for food or drink. keep away from food, drink and animal feedingstuffs.

7.2 **conditions for safe storage, including any incompatibilities**
control of effects
protect against external exposure, such as
  frost

7.3 **specific end use(s)**
see section 16 for a general overview.

---

**SECTION 8: Exposure controls/personal protection**

8.1 **control parameters**
this information is not available.

8.2 **exposure controls**
appropriate engineering controls
general ventilation.
individual protection measures (personal protective equipment)
  eye/face protection
    wear eye/face protection.
skin protection
- hand protection
  wear suitable gloves. chemical protection gloves are suitable, which are tested according to EN 374. check leak-tightness/impermeability prior to use. in the case of wanting to use the gloves again, clean them before taking off and air them well. for special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- other protection measures
  take recovery periods for skin regeneration. preventive skin protection (barrier creams/ointments) is recommended. wash hands thoroughly after handling.

respiratory protection
in case of inadequate ventilation wear respiratory protection.

environmental exposure controls
use appropriate container to avoid environmental contamination. keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>appearance</th>
<th></th>
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<tbody>
<tr>
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other safety parameters

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<td>flash point</td>
<td>not determined</td>
</tr>
<tr>
<td>evaporation rate</td>
<td>not determined</td>
</tr>
<tr>
<td>flammability (solid, gas)</td>
<td>not relevant, [fluid]</td>
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<td>explosive limits</td>
<td>not determined</td>
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<td>vapour pressure</td>
<td>not determined</td>
</tr>
<tr>
<td>density</td>
<td>not determined</td>
</tr>
<tr>
<td>vapour density</td>
<td>this information is not available</td>
</tr>
<tr>
<td>relative density</td>
<td>information on this property is not available</td>
</tr>
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<td>solubility[ies]</td>
<td>not determined</td>
</tr>
<tr>
<td>partition coefficient</td>
<td></td>
</tr>
<tr>
<td>- n-octanol/water (log KOW)</td>
<td>this information is not available</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and reactivity

10.1 reactivity
Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 chemical stability
The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 possibility of hazardous reactions
No known hazardous reactions.

10.4 conditions to avoid
There are no specific conditions known which have to be avoided.

10.5 incompatible materials
Oxidisers

10.6 hazardous decomposition products
Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 information on toxicological effects
Test data are not available for the complete mixture.

Classification procedure
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)
This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

Acute toxicity
Shall not be classified as acutely toxic.

Skin corrosion/irritation
Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation
Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation
Shall not be classified as a respiratory or skin sensitisier.

Germ cell mutagenicity
Shall not be classified as germ cell mutagenic.
carcinogenicity
shall not be classified as carcinogenic.

reproductive toxicity
shall not be classified as a reproductive toxicant.

specific target organ toxicity - single exposure
shall not be classified as a specific target organ toxicant [single exposure].

specific target organ toxicity - repeated exposure
shall not be classified as a specific target organ toxicant [repeated exposure].

aspiration hazard
shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 toxicity
shall not be classified as hazardous to the aquatic environment.

12.2 persistence and degradability
data are not available.

12.3 bioaccumulative potential
data are not available.

12.4 mobility in soil
data are not available.

12.5 results of PBT and vPvB assessment
data are not available.

12.6 other adverse effects
data are not available.

SECTION 13: Disposal considerations

13.1 waste treatment methods
sewage disposal-relevant information
do not empty into drains. avoid release to the environment. Refer to special instructions/safety data sheets.
waste treatment of containers/packagings
completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.

remarks
please consider the relevant national or regional provisions. waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.
SECTION 14: Transport information

14.1 UN number
not subject to transport regulations

14.2 UN proper shipping name
not relevant

14.3 transport hazard class(es)
none

14.4 packing group
not assigned to a packing group

14.5 environmental hazards
non-environmentally hazardous acc. to the dangerous goods regulations

14.6 special precautions for user
there is no additional information.

14.7 transport in bulk according to Annex II of MARPOL and the IBC Code
the cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)
not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)
not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)
not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical Safety Assessment
chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

abbreviations and acronyms

<table>
<thead>
<tr>
<th>abbr.</th>
<th>descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures [European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways]</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route [European Agreement concerning the International Carriage of Dangerous Goods by Road]</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations [see IATA/DGR]</td>
</tr>
<tr>
<td>GHS</td>
<td>“Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport [IATA]</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
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</table>
**5% BSA**

<table>
<thead>
<tr>
<th>abbr.</th>
<th>descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of &quot;Marine Pollutant&quot;)</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses [Regulations concerning the International carriage of Dangerous goods by Rail]</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

**key literature references and sources for data**


**classification procedure**

- physical and chemical properties: the classification is based on tested mixture.
- health hazards, environmental hazards: the method for classification of the mixture is based on ingredients of the mixture [additivity formula].

**disclaimer**

- this information is based upon the present state of our knowledge. this SDS has been compiled and is solely intended for this product.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 product identifier

- trade name: DNA purifying slurry
- registration number (REACH): not relevant (mixture)

1.2 relevant identified uses of the substance or mixture and uses advised against

- relevant identified uses: for research use only, not for use in diagnostic or therapeutic procedures.

1.3 details of the supplier of the safety data sheet

Diagenode SA
LIEGE SCIENCE PARK Rue du Bois Saint-Jean, 3
4102 Seraing
Belgium

- telephone: +32 4 364 20 50
- e-mail: info@diagenode.com

1.4 emergency telephone number

- emergency information service: +32 4 364 20 50
- this number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

<table>
<thead>
<tr>
<th>poison centre</th>
<th>country</th>
<th>name</th>
<th>telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>United Kingdom</td>
<td>National Poisons Information Service</td>
<td>111</td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1 classification of the substance or mixture

- classification according to Regulation (EC) No 1272/2008 (CLP)
- this mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 label elements

- labelling according to Regulation (EC) No 1272/2008 (CLP)
- not required

2.3 other hazards

- results of PBT and vPvB assessment
- this mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 substances

- not relevant (mixture)

3.2 mixtures

- description of the mixture
  This mixture does not contain any potentially hazardous products.
SECTION 4: First aid measures

4.1 description of first aid measures

general notes

do not leave affected person unattended. remove victim out of the danger area. keep affected person warm, still and covered. take off immediately all contaminated clothing. in all cases of doubt, or when symptoms persist, seek medical advice. in case of unconsciousness place person in the recovery position. Never give anything by mouth.

following inhalation

if breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. provide fresh air.

following skin contact

wash with plenty of soap and water.

following eye contact

remove contact lenses, if present and easy to do. Continue rinsing. irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

following ingestion

rinse mouth with water (only if the person is conscious). do NOT induce vomiting.

4.2 most important symptoms and effects, both acute and delayed

symptoms and effects are not known to date.

4.3 indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 extinguishing media

suitable extinguishing media

water spray, BC-powder, carbon dioxide (CO2)

unsuitable extinguishing media

water jet

5.2 special hazards arising from the substance or mixture

5.3 advice for firefighters

in case of fire and/or explosion do not breathe fumes. co-ordinate firefighting measures to the fire surroundings. do not allow firefighting water to enter drains or water courses. collect contaminated firefighting water separately. fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 personal precautions, protective equipment and emergency procedures

for non-emergency personnel

remove persons to safety.

for emergency responders

wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 environmental precautions

keep away from drains, surface and ground water. retain contaminated washing water and dispose of it.
6.3 **methods and material for containment and cleaning up**

advice on how to contain a spill

covering of drains

advice on how to clean up a spill

wipe up with absorbent material (e.g. cloth, fleece). collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

appropriate containment techniques

use of adsorbent materials.

other information relating to spills and releases

place in appropriate containers for disposal. ventilate affected area.

6.4 **reference to other sections**

personal protective equipment: see section 8. incompatible materials: see section 10. disposal considerations: see section 13.

### SECTION 7: Handling and storage

7.1 **precautions for safe handling**

recommendations

- measures to prevent fire as well as aerosol and dust generation

use local and general ventilation. use only in well-ventilated areas.

advice on general occupational hygiene

wash hands after use. do not eat, drink and smoke in work areas. remove contaminated clothing and protective equipment before entering eating areas. never keep food or drink in the vicinity of chemicals. never place chemicals in containers that are normally used for food or drink. keep away from food, drink and animal feedingstuffs.

7.2 **conditions for safe storage, including any incompatibilities**

control of effects

protect against external exposure, such as frost

7.3 **specific end use(s)**

see section 16 for a general overview.

### SECTION 8: Exposure controls/personal protection

8.1 **control parameters**

this information is not available.

8.2 **exposure controls**

appropriate engineering controls

general ventilation.

individual protection measures (personal protective equipment)

eye/face protection

wear eye/face protection.
skin protection
- hand protection
wear suitable gloves. chemical protection gloves are suitable, which are tested according to EN 374. check leak-tightness/impermeability prior to use. in the case of wanting to use the gloves again, clean them before taking off and air them well. for special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- other protection measures
take recovery periods for skin regeneration. preventive skin protection [barrier creams/ointments] is recommended. wash hands thoroughly after handling.

respiratory protection
in case of inadequate ventilation wear respiratory protection.

environmental exposure controls
use appropriate container to avoid environmental contamination. keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 information on basic physical and chemical properties
appearance

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other safety parameters

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<td>solubility[ies]</td>
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<tr>
<td>partition coefficient</td>
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</tr>
<tr>
<td>- n-octanol/water (log KOW)</td>
<td>this information is not available</td>
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auto-ignition temperature | not determined
---|---
viscosity | not determined
explosive properties | none
oxidising properties | none

9.2 other information | there is no additional information

**SECTION 10: Stability and reactivity**

10.1 reactivity
concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 chemical stability
the material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 possibility of hazardous reactions
no known hazardous reactions.

10.4 conditions to avoid
there are no specific conditions known which have to be avoided.

10.5 incompatible materials
there is no additional information.

10.6 hazardous decomposition products
reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. hazardous combustion products: see section 5.

**SECTION 11: Toxicological information**

11.1 information on toxicological effects
test data are not available for the complete mixture.

classification procedure
the method for classification of the mixture is based on ingredients of the mixture (additivity formula).

classification according to GHS (1272/2008/EC, CLP)
this mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

acute toxicity
shall not be classified as acutely toxic.

skin corrosion/irritation
shall not be classified as corrosive/irritant to skin.

serious eye damage/eye irritation
shall not be classified as seriously damaging to the eye or eye irritant.

respiratory or skin sensitisation
shall not be classified as a respiratory or skin sensitiser.

germ cell mutagenicity
shall not be classified as germ cell mutagenic.
carcinogenicity
shall not be classified as carcinogenic.

reproductive toxicity
shall not be classified as a reproductive toxicant.

specific target organ toxicity - single exposure
shall not be classified as a specific target organ toxicant [single exposure].

specific target organ toxicity - repeated exposure
shall not be classified as a specific target organ toxicant [repeated exposure].

aspiration hazard
shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 toxicity
shall not be classified as hazardous to the aquatic environment.

12.2 persistence and degradability
data are not available.

12.3 bioaccumulative potential
data are not available.

12.4 mobility in soil
data are not available.

12.5 results of PBT and vPvB assessment
data are not available.

12.6 other adverse effects
data are not available.

SECTION 13: Disposal considerations

13.1 waste treatment methods
sewage disposal-relevant information
do not empty into drains. avoid release to the environment. Refer to special instructions/safety data sheets.
waste treatment of containers/packagings
completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.

remarks
please consider the relevant national or regional provisions. waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.
SECTION 14: Transport information

14.1 UN number
not subject to transport regulations

14.2 UN proper shipping name
not relevant

14.3 transport hazard class(es)
none

14.4 packing group
not assigned to a packing group

14.5 environmental hazards
non-environmentally hazardous acc. to the dangerous goods regulations

14.6 special precautions for user
there is no additional information.

14.7 transport in bulk according to Annex II of MARPOL and the IBC Code
the cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)
not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)
not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)
not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical Safety Assessment
chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

abbreviations and acronyms

<table>
<thead>
<tr>
<th>abbr.</th>
<th>descriptions of used abbreviations</th>
</tr>
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<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures [European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways]</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route [European Agreement concerning the International Carriage of Dangerous Goods by Road]</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations [see IATA/DGR]</td>
</tr>
<tr>
<td>GHS</td>
<td>“Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport [IATA]</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
</tbody>
</table>
**DNA purifying slurry**

<table>
<thead>
<tr>
<th>abbr.</th>
<th>descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of &quot;Marine Pollutant&quot;)</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

**key literature references and sources for data**


**classification procedure**

physical and chemical properties: the classification is based on tested mixture.

health hazards, environmental hazards: the method for classification of the mixture is based on ingredients of the mixture (additivity formula).

**disclaimer**

this information is based upon the present state of our knowledge. this SDS has been compiled and is solely intended for this product.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 product identifier

<table>
<thead>
<tr>
<th>trade name</th>
<th>proteinase K</th>
</tr>
</thead>
<tbody>
<tr>
<td>registration number (REACH)</td>
<td>not relevant (mixture)</td>
</tr>
</tbody>
</table>

1.2 relevant identified uses of the substance or mixture and uses advised against

| relevant identified uses | for research use only, not for use in diagnostic or therapeutic procedures. |

1.3 details of the supplier of the safety data sheet

Diagenode SA
LIEGE SCIENCE PARK Rue du Bois Saint-Jean, 3
4102 Seraing
Belgium

telephone: +32 4 364 20 50

e-mail: info@diagenode.com

1.4 emergency telephone number

<table>
<thead>
<tr>
<th>emergency information service</th>
<th>+32 4 364 20 50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>this number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM</td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1 classification of the substance or mixture

classification according to Regulation (EC) No 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>section</th>
<th>hazard class</th>
<th>category</th>
<th>hazard class and category</th>
<th>hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4R</td>
<td>respiratory sensitisation</td>
<td>1</td>
<td>Resp. Sens. 1</td>
<td>H334</td>
</tr>
</tbody>
</table>

for full text of abbreviations: see SECTION 16.

2.2 label elements

labelling according to Regulation (EC) No 1272/2008 (CLP)

- signal word danger
- pictograms GHS08

- hazard statements

H334 may cause allergy or asthma symptoms or breathing difficulties if inhaled.
**precautionary statements**

- P261: avoid breathing dust/fume/gas/mist/vapours/spray.
- P284: in case of inadequate ventilation wear respiratory protection.
- P304+P311: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P341: in case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- P342+P311: if experiencing respiratory symptoms: Call a POISON CENTER/doctor.
- P501: dispose of contents/container to industrial combustion plant.

**hazardous ingredients for labelling**

Proteinase, tritirachium album serine

### 2.3 other hazards

**results of PBT and vPvB assessment**

this mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 substances

not relevant (mixture)

### 3.2 mixtures

**description of the mixture**

<table>
<thead>
<tr>
<th>name of substance</th>
<th>identifier</th>
<th>wt%</th>
<th>classification acc. to GHS</th>
<th>pictograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proteinase, tritirachium album serine</td>
<td>CAS No 39450-01-6</td>
<td>2</td>
<td>Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Resp. Sens. 1A / H334</td>
<td>![ ]</td>
</tr>
</tbody>
</table>

for full text of abbreviations: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 description of first aid measures

**general notes**

do not leave affected person unattended. remove victim out of the danger area. keep affected person warm, still and covered. take off immediately all contaminated clothing. in all cases of doubt, or when symptoms persist, seek medical advice. in case of unconsciousness place person in the recovery position. never give anything by mouth.

**following inhalation**

if breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. provide fresh air.

**following skin contact**

wash with plenty of soap and water.

**following eye contact**

remove contact lenses, if present and easy to do. continue rinsing. irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

**following ingestion**

rinse mouth with water (only if the person is conscious). do not induce vomiting.

### 4.2 most important symptoms and effects, both acute and delayed

symptoms and effects are not known to date.

### 4.3 indication of any immediate medical attention and special treatment needed

none
SECTION 5: Firefighting measures

5.1 extinguishing media
   suitable extinguishing media
   water spray, BC-powder, carbon dioxide (CO2)
   unsuitable extinguishing media
   water jet

5.2 special hazards arising from the substance or mixture

5.3 advice for firefighters
   in case of fire and/or explosion do not breathe fumes.  co-ordinate firefighting measures to the fire surroundings. do not allow firefighting water to enter drains or water courses. collect contaminated firefighting water separately. fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 personal precautions, protective equipment and emergency procedures
   for non-emergency personnel
   remove persons to safety.
   for emergency responders
   wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 environmental precautions
   keep away from drains, surface and ground water. retain contaminated washing water and dispose of it.

6.3 methods and material for containment and cleaning up
   advice on how to contain a spill
   covering of drains
   advice on how to clean up a spill
   wipe up with absorbent material [e.g. cloth, fleece]. collect spillage: sawdust, kieselgur (diatomite), sand, universal binder
   appropriate containment techniques
   use of adsorbent materials.
   other information relating to spills and releases
   place in appropriate containers for disposal. ventilate affected area.

6.4 reference to other sections
   personal protective equipment: see section 8. incompatible materials: see section 10. disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 precautions for safe handling
   recommendations
   - measures to prevent fire as well as aerosol and dust generation
   use local and general ventilation. use only in well-ventilated areas.
   advice on general occupational hygiene
   wash hands after use. do not eat, drink and smoke in work areas. remove contaminated clothing and protective equipment before entering eating areas. never keep food or drink in the vicinity of chemicals. never place chemicals in containers that are normally used for food or drink. keep away from food, drink and animal feedingstuffs.
7.2 **conditions for safe storage, including any incompatibilities**
control of effects
protect against external exposure, such as frost

7.3 **specific end use(s)**
see section 16 for a general overview.

### SECTION 8: Exposure controls/personal protection

8.1 **control parameters**
this information is not available.

8.2 **exposure controls**
appropriate engineering controls
general ventilation.

individual protection measures (personal protective equipment)
eye/face protection
wear eye/face protection.

skin protection
- hand protection
wear suitable gloves. chemical protection gloves are suitable, which are tested according to EN 374. check leak-tightness/impermeability prior to use. in the case of wanting to use the gloves again, clean them before taking off and air them well. for special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- other protection measures
take recovery periods for skin regeneration. preventive skin protection [barrier creams/ointments] is recommended. wash hands thoroughly after handling.

respiratory protection
in case of inadequate ventilation wear respiratory protection.

environmental exposure controls
use appropriate container to avoid environmental contamination. keep away from drains, surface and ground water.

### SECTION 9: Physical and chemical properties

9.1 **information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>physical state</th>
<th>liquid</th>
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</thead>
<tbody>
<tr>
<td>colour</td>
<td>colourless</td>
</tr>
<tr>
<td>odour</td>
<td>odourless</td>
</tr>
</tbody>
</table>
proteinase K

### Safety Data Sheet

**other safety parameters**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (value)</td>
<td>not determined</td>
</tr>
<tr>
<td>melting point/freezing point</td>
<td>not determined</td>
</tr>
<tr>
<td>initial boiling point and boiling range</td>
<td>not determined</td>
</tr>
<tr>
<td>flash point</td>
<td>not determined</td>
</tr>
<tr>
<td>evaporation rate</td>
<td>not determined</td>
</tr>
<tr>
<td>flammability (solid, gas)</td>
<td>not relevant, (fluid)</td>
</tr>
<tr>
<td>explosive limits</td>
<td>not determined</td>
</tr>
<tr>
<td>vapour pressure</td>
<td>not determined</td>
</tr>
<tr>
<td>density</td>
<td>not determined</td>
</tr>
<tr>
<td>vapour density</td>
<td>this information is not available</td>
</tr>
<tr>
<td>relative density</td>
<td>information on this property is not available</td>
</tr>
<tr>
<td>solubility(ies)</td>
<td>not determined</td>
</tr>
</tbody>
</table>

**partition coefficient**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>- n-octanol/water (log KOW)</td>
<td>this information is not available</td>
</tr>
<tr>
<td>auto-ignition temperature</td>
<td>not determined</td>
</tr>
<tr>
<td>viscosity</td>
<td>not determined</td>
</tr>
<tr>
<td>explosive properties</td>
<td>none</td>
</tr>
<tr>
<td>oxidising properties</td>
<td>none</td>
</tr>
</tbody>
</table>

**SECTION 10: Stability and reactivity**

10.1 **reactivity**

Concerning incompatibility: see below “Conditions to avoid” and “Incompatible materials”.

10.2 **chemical stability**

See below “Conditions to avoid”.

10.3 **possibility of hazardous reactions**

No known hazardous reactions.

10.4 **conditions to avoid**

There are no specific conditions known which have to be avoided.

10.5 **incompatible materials**

There is no additional information.
10.6 **hazardous decomposition products**
reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 **information on toxicological effects**
test data are not available for the complete mixture.

classification procedure
the method for classification of the mixture is based on ingredients of the mixture (additivity formula).

classification according to GHS (1272/2008/EC, CLP)
acute toxicity
shall not be classified as acutely toxic.

skin corrosion/irritation
shall not be classified as corrosive/irritant to skin.

serious eye damage/eye irritation
shall not be classified as seriously damaging to the eye or eye irritant.

respiratory or skin sensitisation
may cause allergy or asthma symptoms or breathing difficulties if inhaled.

germ cell mutagenicity
shall not be classified as germ cell mutagenic.

carcinogenicity
shall not be classified as carcinogenic.

reproductive toxicity
shall not be classified as a reproductive toxicant.

specific target organ toxicity - single exposure
shall not be classified as a specific target organ toxicant (single exposure).

specific target organ toxicity - repeated exposure
shall not be classified as a specific target organ toxicant (repeated exposure).

aspiration hazard
shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 **toxicity**
shall not be classified as hazardous to the aquatic environment.

12.2 **persistence and degradability**
data are not available.

12.3 **bioaccumulative potential**
data are not available.

12.4 **mobility in soil**
data are not available.
12.5 results of PBT and vPvB assessment
data are not available.

12.6 other adverse effects
data are not available.

SECTION 13: Disposal considerations

13.1 waste treatment methods
sewage disposal-relevant information
  do not empty into drains. avoid release to the environment. Refer to special instructions/safety data sheets.
  waste treatment of containers/ packagings
  completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.

  remarks
  please consider the relevant national or regional provisions, waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number
  not subject to transport regulations

14.2 UN proper shipping name
  not relevant

14.3 transport hazard class(es)
  none

14.4 packing group
  not assigned to a packing group

14.5 environmental hazards
  non-environmentally hazardous acc. to the dangerous goods regulations

14.6 special precautions for user
  there is no additional information.

14.7 transport in bulk according to Annex II of MARPOL and the IBC Code
  the cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations
transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)
  not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)
  not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)
  not subject to ICAO-IATA.
SECTION 15: Regulatory information

15.1 safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

abbreviations and acronyms

<table>
<thead>
<tr>
<th>abbr.</th>
<th>descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures [European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways]</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route [European Agreement concerning the International Carriage of Dangerous Goods by Road]</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service [service that maintains the most comprehensive list of chemical substances]</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations [see IATA/DGR]</td>
</tr>
<tr>
<td>EC No</td>
<td>The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU [European Union]</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>Eye Dam.</td>
<td>Seriously damaging to the eye</td>
</tr>
<tr>
<td>Eye Irrit.</td>
<td>Irritant to the eye</td>
</tr>
<tr>
<td>GHS</td>
<td>“Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>index No</td>
<td>The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships [abbr. of “Marine Pollutant”]</td>
</tr>
<tr>
<td>NLP</td>
<td>No-Longer Polymer</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>Resp. Sens.</td>
<td>Respiratory sensitisation</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses [Regulations concerning the International carriage of Dangerous goods by Rail]</td>
</tr>
<tr>
<td>Skin Corr.</td>
<td>Corrosive to skin</td>
</tr>
<tr>
<td>Skin Irrit.</td>
<td>Irritant to skin</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

key literature references and sources for data

classification procedure
physical and chemical properties: the classification is based on tested mixture.
health hazards, environmental hazards: the method for classification of the mixture is based on ingredients of the mixture (additivity formula).

list of relevant phrases (code and full text as stated in chapter 2 and 3)

<table>
<thead>
<tr>
<th>code</th>
<th>text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H334</td>
<td>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
</tbody>
</table>

disclaimer
this information is based upon the present state of our knowledge. this SDS has been compiled and is solely intended for this product.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 product identifier

identification of the substance: ChIP-seq grade water
registration number (REACH): this information is not available
CAS number: 7732-18-5

1.2 relevant identified uses of the substance or mixture and uses advised against

relevant identified uses: for research use only, not for use in diagnostic or therapeutic procedures.

1.3 details of the supplier of the safety data sheet

Diagenode SA
LIEGE SCIENCE PARK Rue du Bois Saint-Jean, 3
4102 Seraing
Belgium

telephone: +32 4 364 20 50
e-mail: info@diagenode.com

1.4 emergency telephone number

emergency information service: +32 4 364 20 50
this number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

<table>
<thead>
<tr>
<th>poison centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>country</td>
</tr>
<tr>
<td>United Kingdom</td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1 classification of the substance or mixture

classification according to Regulation (EC) No 1272/2008 (CLP): this substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 label elements

labelling according to Regulation (EC) No 1272/2008 (CLP): not required

2.3 other hazards

results of PBT and vPvB assessment: according to the results of its assessment, this substance is not a PBT or a vPvB.
SECTION 3: Composition/information on ingredients

3.1 substances

name of substance: ChIP-seq grade water

identifiers

CAS No: 7732-18-5

molecular formula: H2O

molar mass: 18.02 g/mol

SECTION 4: First aid measures

4.1 description of first aid measures

general notes

do not leave affected person unattended. remove victim out of the danger area. keep affected person warm, still and covered. take off immediately all contaminated clothing. in all cases of doubt, or when symptoms persist, seek medical advice. in case of unconsciousness place person in the recovery position. never give anything by mouth.

following inhalation

if breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. provide fresh air.

following skin contact

wash with plenty of soap and water.

following eye contact

remove contact lenses, if present and easy to do. continue rinsing. irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

following ingestion

rinse mouth with water (only if the person is conscious). do not induce vomiting.

4.2 most important symptoms and effects, both acute and delayed

symptoms and effects are not known to date.

4.3 indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 extinguishing media

suitable extinguishing media

water spray, alcohol resistant foam, BC-powder, carbon dioxide (CO2)

unsuitable extinguishing media

water jet

5.2 special hazards arising from the substance or mixture

5.3 advice for firefighters

in case of fire and/or explosion do not breathe fumes. co-ordinate firefighting measures to the fire surroundings. do not allow firefighting water to enter drains or water courses. collect contaminated firefighting water separately. fight fire with normal precautions from a reasonable distance.
SECTION 6: Accidental release measures

6.1 personal precautions, protective equipment and emergency procedures
   for non-emergency personnel
   remove persons to safety.
   for emergency responders
   wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 environmental precautions
   keep away from drains, surface and ground water. retain contaminated washing water and dispose of it.

6.3 methods and material for containment and cleaning up
   advice on how to contain a spill
   covering of drains
   advice on how to clean up a spill
   wipe up with absorbent material [e.g. cloth, fleece]. collect spillage: sawdust, kieselgur [diatomite], sand, universal binder
   appropriate containment techniques
   use of adsorbent materials.
   other information relating to spills and releases
   place in appropriate containers for disposal. ventilate affected area.

6.4 reference to other sections
   personal protective equipment: see section 8. incompatible materials: see section 10. disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 precautions for safe handling
   recommendations
   - measures to prevent fire as well as aerosol and dust generation
     use local and general ventilation. use only in well-ventilated areas.
   advice on general occupational hygiene
     wash hands after use. do not eat, drink and smoke in work areas. remove contaminated clothing and protective equipment before entering eating areas. never keep food or drink in the vicinity of chemicals. never place chemicals in containers that are normally used for food or drink. keep away from food, drink and animal feedingstuffs.

7.2 conditions for safe storage, including any incompatibilities
   control of effects
   protect against external exposure, such as frost

7.3 specific end use(s)
   see section 16 for a general overview.
SECTION 8: Exposure controls/personal protection

8.1 control parameters
this information is not available.

8.2 exposure controls
appropriate engineering controls
general ventilation.

individual protection measures (personal protective equipment)
eye/face protection
wear eye/face protection.

skin protection
- hand protection
wear suitable gloves. chemical protection gloves are suitable, which are tested according to EN 374. check leak-tightness/impermeability prior to use. in the case of wanting to use the gloves again, clean them before taking off and air them well. for special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- other protection measures
  take recovery periods for skin regeneration. preventive skin protection (barrier creams/ointments) is recommended. wash hands thoroughly after handling.

respiratory protection
in case of inadequate ventilation wear respiratory protection.

environmental exposure controls
use appropriate container to avoid environmental contamination. keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 information on basic physical and chemical properties
appearance

<table>
<thead>
<tr>
<th>physical state</th>
<th>liquid</th>
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</thead>
<tbody>
<tr>
<td>colour</td>
<td>colourless</td>
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<tr>
<td>odour</td>
<td>odourless</td>
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</tbody>
</table>

other safety parameters

<table>
<thead>
<tr>
<th>pH (value)</th>
<th>not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>melting point/freezing point</td>
<td>0 °C</td>
</tr>
<tr>
<td>initial boiling point and boiling range</td>
<td>100 °C</td>
</tr>
<tr>
<td>flash point</td>
<td>not determined</td>
</tr>
<tr>
<td>evaporation rate</td>
<td>not determined</td>
</tr>
<tr>
<td>flammability (solid, gas)</td>
<td>not relevant, (fluid)</td>
</tr>
</tbody>
</table>
explosive limits
not determined

vapour pressure
not determined

density
not determined

vapour density
this information is not available

relative density
information on this property is not available

Solubility(ies)

- water solubility
miscible in any proportion

Partition coefficient

- n-octanol/water (log KOW)
this information is not available

auto-ignition temperature
not determined

viscosity
not determined

explosive properties
none

oxidising properties
none

9.2 Other information
there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity
Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability
The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions
No known hazardous reactions.

10.4 Conditions to avoid
There are no specific conditions known which have to be avoided.

10.5 Incompatible materials
There is no additional information.

10.6 Hazardous decomposition products
Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification according to GHS (1272/2008/EC, CLP)

This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

Acute toxicity
shall not be classified as acutely toxic.

Skin corrosion/irritation
shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation
shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation
shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity
shall not be classified as germ cell mutagenic.

Carcinogenicity
shall not be classified as carcinogenic.

Reproductive toxicity
shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure
shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure
shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard
shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity
shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability
Data are not available.

12.3 Bioaccumulative potential
Data are not available.

12.4 Mobility in soil
Data are not available.

12.5 Results of PBT and vPvB assessment
Data are not available.

12.6 Other adverse effects
Data are not available.
SECTION 13: Disposal considerations

13.1 waste treatment methods
- waste treatment-relevant information
  recycling/reclamation of other inorganic materials.
- sewage disposal-relevant information
  do not empty into drains. avoid release to the environment. Refer to special instructions/safety data sheets.
- waste treatment of containers/packagings
  completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.

remarks
please consider the relevant national or regional provisions. waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number
not subject to transport regulations

14.2 UN proper shipping name
not relevant

14.3 transport hazard class(es)
none

14.4 packing group
not assigned to a packing group

14.5 environmental hazards
non-environmentally hazardous acc. to the dangerous goods regulations

14.6 special precautions for user
there is no additional information.

14.7 transport in bulk according to Annex II of MARPOL and the IBC Code
the cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations
transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)
not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)
not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)
not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical Safety Assessment
no Chemical Safety Assessment has been carried out for this substance.
section 16: Other information

indication of changes (revised safety data sheet)

<table>
<thead>
<tr>
<th>section</th>
<th>former entry (text/value)</th>
<th>actual entry (text/value)</th>
<th>safety-relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>suitable extinguishing media: not applicable</td>
<td>suitable extinguishing media: water spray, alcohol resistant foam, BC-powder, carbon dioxide (CO2)</td>
<td>yes</td>
</tr>
<tr>
<td>5.1</td>
<td>unsuitable extinguishing media: not applicable</td>
<td>unsuitable extinguishing media: water jet</td>
<td>yes</td>
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</tbody>
</table>

abbreviations and acronyms

<table>
<thead>
<tr>
<th>abbr.</th>
<th>descriptions of used abbreviations</th>
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</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures [European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways]</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route [European Agreement concerning the International Carriage of Dangerous Goods by Road]</td>
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<tr>
<td>CAS</td>
<td>Chemical Abstracts Service [service that maintains the most comprehensive list of chemical substances]</td>
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<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations [see IATA/DGR]</td>
</tr>
<tr>
<td>GHS</td>
<td>“Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships [abbr. of “Marine Pollutant”]</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses [Regulations concerning the International carriage of Dangerous goods by Rail]</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

key literature references and sources for data


transport of dangerous goods by road, rail and inland waterway [ADR/RID/ADN]. International Maritime Dangerous Goods Code [IMDG]. Dangerous Goods Regulations (DGR) for the air transport [IATA].

disclaimer

this information is based upon the present state of our knowledge. this SDS has been compiled and is solely intended for this product.