SECTION 1 Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
- **Product form**: Mixture
- **Product name**: Retinol Binding Protein Assay Reagent 1, and Reagent 2
- **Product code**: DZ187A, DZ187A-R1, DZ187A-R2
- **Product group**: Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses
No additional information available

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet
- **Supplier**: Diazyme Laboratories
  12889 Gregg Court
  92064 Poway
  T 858-455-4768

- **Authorized Representative**: MDSS GmbH
  Schiffgraben 41
  Germany
  (+49) 511-6262-8630

1.4. Emergency telephone number
- **Emergency number**: Contact your local health authority or poison control center in an emergency. Manufacturer contact number for the US is as follows: (858) 455-4768

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture
- **Classification according to Regulation (EC) No. 1272/2008 [CLP]**
  Not classified

2.2. Label elements
- **Labeling according to Regulation (EC) No. 1272/2008 [CLP]**
  No labeling applicable

2.3. Other hazards
No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium thiocyanate</td>
<td>(CAS No) 540-72-7</td>
<td>1.5</td>
<td>Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312</td>
</tr>
<tr>
<td></td>
<td>(EC no) 208-754-4</td>
<td></td>
<td>Acute Tox. 4 (Oral), H302 Eye Irr. 2, H319</td>
</tr>
<tr>
<td></td>
<td>(EC index no) 615-030-00-5</td>
<td></td>
<td>Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td>Trizma Base</td>
<td>(CAS No) 77-86-1</td>
<td>1.21</td>
<td>Eye Irr. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td>(EC no) 201-064-4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16
SECTION 4 First aid measures

4.1. Description of first aid measures
- First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact: Wash skin with plenty of water.
- First-aid measures after eye contact: Rinse eyes with water as a precaution.
- First-aid measures after ingestion: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed
No additional information available

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5 Firefighting measures

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture
- Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Advice for firefighters
- Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
- Emergency procedures: Ventilate spillage area.

6.1.2. For emergency responders
- Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions
- Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
- Methods for cleaning up: Take up liquid spill into absorbent material.
- Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
- For further information refer to section 13.

SECTION 7 Handling and storage

7.1. Precautions for safe handling
- Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment.
- Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
- Storage conditions: Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)
- No additional information available

SECTION 8 Exposure controls/personal protection

8.1. Control parameters
- No additional information available

8.2. Exposure controls
- Appropriate engineering controls: Ensure good ventilation of the work station.
Hand protection: Protective gloves
Eye protection: Safety glasses
Skin and body protection: Wear suitable protective clothing
Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment
Environmental exposure controls: Avoid release to the environment.

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Color: No data available
Odor: No data available
Odor threshold: No data available
pH: No data available
Relative evaporation rate (butyl acetate=1): No data available
Melting point: Not applicable
Freezing point: No data available
Boiling point: No data available
Flash point: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): Not applicable
Vapor pressure: No data available
Relative vapor density at 20 °C: No data available
Relative density: No data available
Solubility: No data available
Log Pow: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidizing properties: No data available
Explosion limits: No data available

9.2. Other information

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

Trizma Base (77-86-1)
LD50 oral rat: 5900 mg/kg (Rat)
## Sodium thiocyanate (540-72-7)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>764 mg/kg (Rat; Inconclusive, insufficient data)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2000 mg/kg body weight (Rat; Read-across; OECD 402: Acute Dermal Toxicity)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Serious eye damage/irritation
Respiratory or skin sensitization
Germ cell mutagenicity
Carcinogenicity
Reproductive toxicity
Specific target organ toxicity (single exposure)
Specific target organ toxicity (repeated exposure)
Aspiration hazard

### SECTION 12 Ecological information

#### 12.1. Toxicity

Ecology - general

The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

<table>
<thead>
<tr>
<th>Sodium thiocyanate (540-72-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threshold limit algae 1</td>
</tr>
<tr>
<td>150 mg/l (EC20; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Read-across)</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

**Trizma Base (77-86-1)**

Persistence and degradability
Biodegradability in water: no data available.

**Sodium thiocyanate (540-72-7)**

Persistence and degradability
Biodegradability: not applicable. No (test) data on mobility of the substance available.

ThOD
Not applicable (inorganic)

#### 12.3. Bioaccumulative potential

**Trizma Base (77-86-1)**

Log Pow
-1.56

Bioaccumulative potential
Bioaccumulation: not applicable.

**Sodium thiocyanate (540-72-7)**

Log Pow
-2.52 (Calculated)

Bioaccumulative potential
Low potential for bioaccumulation (Log Kow < 4).

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

### SECTION 13 Disposal considerations

#### 13.1. Waste treatment methods

Dispose of contents/container in accordance with licensed collector’s sorting instructions.

### SECTION 14 Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

Not regulated for transport

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR)
Not applicable

Proper Shipping Name (IMDG)
Not applicable

Proper Shipping Name (IATA)
Not applicable

Proper Shipping Name (ADN)
Not applicable

Proper Shipping Name (RID)
Not applicable
## 14.3. Transport hazard class(es)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>Not applicable</td>
</tr>
<tr>
<td>IMDG</td>
<td>Not applicable</td>
</tr>
<tr>
<td>IATA</td>
<td>Not applicable</td>
</tr>
<tr>
<td>ADN</td>
<td>Not applicable</td>
</tr>
<tr>
<td>RID</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing group (ADR)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Packing group (IMDG)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Packing group (IATA)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Packing group (ADN)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Packing group (RID)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

## 14.4. Packing group

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous for the environment</td>
<td>No</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>No</td>
</tr>
<tr>
<td>Other information</td>
<td>No supplementary information available</td>
</tr>
</tbody>
</table>

## 14.6. Special precautions for user

- **Overland transport**
  No data available

- **Transport by sea**
  No data available

- **Air transport**
  No data available

- **Inland waterway transport**
  Carriage prohibited (ADN) | No |
  Not subject to ADN | No |

- **Rail transport**
  Carriage prohibited (RID) | No |

## 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15 Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no REACH candidate substance
Contains no REACH Annex XIV substances.

#### 15.1.2. National regulations

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

**Germany**

VwVwS Annex reference

Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 4)
Retinol Binding Protein Assay Reagent 1, and Reagent 2
Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue 4/18/17  Revision date 4/18/17  Version A

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands
SZW-list van kankerverwekkende stoffen  None of the components are listed
SZW-list van mutagene stoffen  None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding  None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbareheid  None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling  None of the components are listed

Denmark
Recommendations Danish Regulation  Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2.  Chemical safety assessment
No additional information available

SECTION 16 Other information

Full text of H- and EUH-phrases

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Dermal)</th>
<th>Acute toxicity (dermal) Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 (Inhalation)</td>
<td>Acute toxicity (inhalation) Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral) Category 4</td>
</tr>
<tr>
<td>Aquatic Chronic 3</td>
<td>Hazardous to the aquatic environment - Chronic Hazard Category 3</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation Category 2</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity (single exposure) Category 3</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

SDS EU Diazyme with CLP

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.