SAFETY DATA SHEET (SDS)

Revision date: 05/18

SDS – 037
Revision number: 01
Rev. 05/18

SPOTCHEM™ II Amylase
Part Numbers: SE77113

For use with the SPOTCHEM EZ Analyzer SP-4430

ARKRAY USA, Inc.
5182 West 76th Street
Minneapolis, Minnesota 55439

Technical Customer Service Phone:
1-855-646-3108
SAFETY DATA SHEET

SDS No. : 77409EU
Issue Date : 18 Mar. 1998
Revision Date : 31 Jan. 2017

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

1.1 Product identifier
Product name : SPOTCHEM II AMYLASE

1.2 Relevant identified uses of the substance or mixture and uses advised against
The product is applicable for the following purpose of use only. Use exclusive reagents for SPOTCHEM analyzer.

1.3 Details of the supplier of the safety data sheet
ARKRAY FACTORY, Inc.
Address : 1480 Koji, Konan-cho, Koka-shi, Shiga 520-3306, JAPAN
Phone : +81-748-86-6901
Facsimile : +81-748-86-5347

European representative
ARKRAY Europe, B. V.
Address : Prof. J. H. Bavincklaan 2, 1183 AT Amstelveen, THE NETHERLANDS
Phone : +31-20-545-2450
Facsimile : +31-20-545-2459

1.4 Emergency telephone number
Emergency phone : +31-20-545-2450

2. Hazards Identification

2.1 Classification of the substance or mixture
Not a hazardous substance or mixture according to REGULATION (EC) No 1272/2008.

2.2 Label elements
The product does not need to be labeled in accordance with EC directives or respective national laws.

2.3 Other hazards
May be harmful if ingested.
May cause eyes and skin irritation.

3. Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Component</th>
<th>Conc. [%]</th>
<th>Formula</th>
<th>EINECS No.</th>
<th>CAS No.</th>
<th>Classification Regulation(EC) 1272/2008(CLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzylidenine-p-nitrophenyl-maltoheptaoside (BG7-pNP)</td>
<td>&lt; 1.0</td>
<td>C_{55}H_{78}N_{33}O_{33}</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Glucoamylase</td>
<td>&lt; 0.01</td>
<td>—</td>
<td>232-877-2</td>
<td>9032-08-0</td>
<td>Skin Irrit. 2; H315, Eye Irrit. 2A; H319</td>
</tr>
<tr>
<td>α-Glucosidase</td>
<td>&lt; 0.01</td>
<td>—</td>
<td>232-604-7</td>
<td>9001-42-7</td>
<td>—</td>
</tr>
</tbody>
</table>
4. First aid measures

4.1 Description of first aid measures

Inhalation
Not applicable

Skin contact
Immediately wash thoroughly with water and soap. Immediately get medical attention if itchiness and inflammation occurs.

Eye contact
Immediately wash eyes with plenty of clean water for at least 15 minutes and get medical attention.

Ingestion
Rinse mouth. Give one or two glasses of water to drink.

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

4.3 Indication of any immediate medical attention and special treatment needed
No relevant information available

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Water

Unsuitable extinguishing media
No relevant information available

5.2 Special hazards arising from the substance or mixture
No relevant information available

5.3 Advice for firefighters
No relevant information available

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
No information available

For emergency responder
Wear protective gloves.

6.2 Environmental precautions
No relevant information available

6.3 Methods and material for containment and cleaning up
Pick up the product and wipe the contaminated area with damp cloth. Rinse the used cloth.

6.4 Reference to other sections
Not available

7. Handling and storage

7.1 Precautions for safe handling
Preventive measures (Exposure Control for handling personnel)
7.2 **Conditions for safe storage, including any incompatibilities**

Store the product in a refrigerator at temperature of 2 - 8 °C.

7.3 **Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. **Exposure controls/personal protection**

8.1 **Control parameters**

No data available

8.2 **Exposure controls**

**Appropriate engineering controls**

No information available

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Use safety glasses, if necessary.

**Skin protection**

**Hand protection**

Use rubber gloves, if necessary

**Other**

Not necessary

**Respiratory protection**

Not necessary

**Thermal hazards**

No information available

**Environmental exposure controls**

No relevant information available

9. **Physical and chemical properties**

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility in</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Partition coefficient: n-octanol/water
No data available

Auto-ignition temperature
No data available

Decomposition temperature
No data available

Viscosity
No data available

9.2 Other information
No further relevant information

10. Stability and reactivity
10.1 Reactivity
Stable under normal conditions

10.2 Chemical stability
Stable under normal conditions

10.3 Possibility of hazardous reactions
None

10.4 Conditions to avoid
Sunlight, heat, and humidity

10.5 Incompatible materials
No information available

10.6 Hazardous decomposition products
None

11. Toxicological information
11.1 Information on toxicological effects
Acute toxicity
No information available

Skin corrosion/irritation
No information available

Serious eye damage/irritation
No information available

Respiratory or skin sensitization
No information available

Germ cell mutagenicity
No information available

Carcinogenicity

Reproductive toxicity
No information available

STOT-single exposure
No information available

STOT-repeated exposure
No information available

Aspiration hazard
No information available

12. Ecological information
12.1 Toxicity
No information available

12.2 Persistence and degradability
No information available

12.3 Bioaccumulative potential
No information available
12.4 Mobility in soil
No information available

12.5 Results of PBT and vPvB assessment
No information available

12.6 Other adverse effects
No information available

13. Disposal considerations

13.1 Waste treatment methods
Product
Dispose of the product in accordance with regulations.
Contaminated packaging
Dispose as of unused product.
Others
If used product, ask a licensed disposal company.
Observe all federal, state, and local environmental regulation.

14. Transport information

14.1 UN number
ADR/RID: — IMDG: — IATA: —

14.2 UN proper shipping name
ADR/RID: — IMDG: — IATA: —

14.3 Transport hazard class(es)
ADR/RID: — IMDG: — IATA: —

14.4 Packing group
ADR/RID: — IMDG: — IATA: —

14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user
No relevant information available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No relevant information available

15. Regulatory information
The safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture
No information available

15.2 Chemical safety assessment
No information available

16. Other information
The date of preparation and revision of the SDS
Revised on 25 August 2000: Changed the Company name from “KDK corporation” to “ARKRAY, Inc.”

Revised on 10 December 2002: Modified in accordance with the requirements of Directive 2001/58/EC.

Revised on 22 October 2003: Changed the Manufacturer from “ARKRAY FACTORY” to “ARKRAY, Inc” in “Company information.”

Revised on 1 November 2004: Added to the European representative

Revised on 1 November 2005: Changed the Manufacturer from “ARKRAY, Inc” to “ARKRAY FACTORY” in “Company information.”

Revised on 8 January 2010: Changed Telephone number & Facsimile number of the Manufacturer in “Company information.”

Revised on 1 July 2010: Modified to fit with ISO11014-1.

Revised on 1 June 2015: Modified in accordance with the requirements of Regulation (EC) No. 1907/2006.

Revised on 1 December 2015: European representative’s address has changed.

Revised on 31 January 2017: Corrected the wording in 15.1.

Clarified concentration in Composition/Information on ingredients.

Key literature references
Insert

Further information
The above information contained herein is based on the data available to us and is believed to be correct. However, ARKRAY, Inc. bears no warranty expresses or implies regarding the accuracy of these data or the results to be obtained from the use thereof.

ARKRAY, Inc. assumes no responsibility for injury caused from the use of the product described herein.