



Safety Data Sheet

Revision Date: 10 March 2023

Product Name: DetectX[®] Acetylcholinesterase Fluorescent Activity Kit

Section 1: Identification

Product Name: DetectX[®] Acetylcholinesterase Fluorescent Activity Kit
Also known as: Catalog Number K015-F1 or AChE Activity Kit
Manufacturer / Supplier: Arbor Assays
1514 Eisenhower Place
Ann Arbor, MI 48108-3284 Telephone 734-677-1774 (U.S.)
U.S.A. Fax 734-677-6860 (U.S.)
Recommended Use: For Research Use Only

Section 2: Hazard(s) Identification

Classification: Regulation (EC) No. 1272/2008 [CLP/GHS]

Dimethyl sulfoxide: Flammable, Category 4
Irritant, Class 2



Hazard statements: Combustible liquid.
May be harmful if inhaled, absorbed through skin, swallowed.
May be irritating to eyes, respiratory system and skin.
Harmful to aquatic organisms.
May cause long-term adverse effects in aquatic environment.

Precautionary statements: Keep away from heat, open flames, hot surfaces, sparks.
Wash hands thoroughly after handling.
Wear protective gloves, clothing, and eye/face protection.

Section 3: Information on Ingredients

Components: Acetylcholinesterase Standard (C046-225UL)
ThioStar[®] Detection Reagent (2 each, C048-1EA)
Dry DMSO (X022-14ML)
AChE Substrate (2 each, C047-1EA)
Assay Buffer Concentrate (X064-28ML)

Description: DMSO, X022-14ML, contains:

| <u>Chemical Name</u> | <u>CAS No.</u> | <u>Percent</u> |
|----------------------|----------------|----------------|
| Dimethyl sulfoxide | 67-68-5 | 100% |

Additional components of the kit are non-hazardous or the specific chemical identity and/or exact percentage (concentration) of composition have been withheld as a trade secret.

Section 4: First-Aid Measures

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| Inhalation | If inhaled, remove to fresh air. Seek medical attention if any respiratory symptoms develop. |
| Skin Contact | Rinse with copious amounts of water and wash thoroughly with soap and water. If irritation or discomfort develops seek medical attention. |
| Eye Contact | Rinse eyes with water as a precaution. |
| Ingestion | If swallowed, wash out mouth with water if person is conscious. |

Section 5: Fire-Fighting Measures

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| Extinguishing Media | Suitable: Water spray. Carbon Dioxide, dry chemical powder, or appropriate foam. |
| Firefighting | Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. |

Section 6: Accidental Release Measures

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| Cleanup Procedures | Wear appropriate protective clothing. Avoid breathing vapors, mist or gas. Ventilate area. Contain spill to prevent migration. Wipe up spill, place in sealed container for disposal. Wash area of spill with soap and water. |
| Waste Disposal | Dispose of in accordance with federal, state, and local regulations. |

Section 7: Handling and Storage

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| Handling | Avoid getting components of this kit on you or in you. Do not breathe vapor. Always wear appropriate protective clothing. Always wash hands and other exposed areas thoroughly after using this kit. Do not eat or drink while using this kit. Qualified and experienced professionals should only handle this kit. |
| Storage | Store according to the package insert instructions. |

Section 8: Exposure Controls / Personal Protection

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| Engineering Controls | No special engineering controls are required when working with this kit. Use with adequate ventilation. |
| Protective Equipment | Safety glasses are recommended to prevent eye contact. Chemical resistant gloves and a lab coat should be worn to prevent skin contact. |

Section 9: Physical and Chemical Properties

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| Dry DMSO, X022-14ML (Dimethyl sulfoxide, 100%) | |
| Characteristic | |
| Appearance | Clear, colorless liquid |
| Odor | Slight |
| Boiling Point | 189°C (372°F) at 1,013 hPa (760 mmHg) |
| Melting Point | 18.4°C (65.1°F) |
| Flash Point | 87°C (189°F) – closed cup |
| Ignition temperature | 301°C (574°F) |
| Density | 1.1 g/cm ³ |
| Vapor Pressure | 0.55 hPa (0.41 mmHg) at 20°C (68°F) |
| Solubility in Water | Complete |
| pH | N/A |

Section 10: Stability and Reactivity

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| Stability | This material is stable until the expiration date on the kit if stored as directed. |
| Conditions to Avoid | Heat, flames, sparks. Moisture. |
| Incompatibilities | Strong oxidizing or reducing agents, acid chlorides, phosphorus halides, strong acids. |

Section 11: Toxicological Information

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| <u>Route of Exposure</u> | |
| Skin Contact | May cause skin irritation. |
| Skin Absorption | May be harmful if absorbed through the skin. |
| Eye Contact | May cause eye irritation. |
| Inhalation | May be harmful if inhaled. May be irritating to respiratory tract. |
| Ingestion | Harmful if swallowed. |
| <u>Symptoms of Exposure</u> | To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |

Section 12: Ecological Information

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| <u>Toxicity:</u> | |
| Fish: | LC50 – Pimephales promelas (fathead minnow) – 34g/L, 96h LC50 – Oncorhynchus mykiss (rainbow trout) – 35g/L, 96h |
| Aquatic invertebrates: | ED50 – Daphnia magna (water flea) – 26 g/L, 48h |
| Algae: | ED50 – Pseudokirchneriella subcapitata (green algae) – 17g/L, 72h |
| <u>Persistence / degradability:</u> | 31% - According to results of test of biodegradability this product is not readily biodegradable (OECD Test Guideline 301D). |
| <u>Bioaccumulative potential:</u> | No data available. |
| <u>Mobility in soil:</u> | No data available. |
| <u>Results of PBT/vPvB assessment:</u> | No data available. |
| <u>Other adverse effects:</u> | No data available. |
| <u>Stability in water:</u> | -0.12 – 1.2h at 30°C, Hydrolyses readily. |

Section 13: Disposal Considerations

Dispose of waste materials, unused components and contaminated packaging in compliance with country, state, district and local regulations. If unsure of the applicable requirements, contact the authorities for information.

Section 14: Transport InformationU.S. and Canadian Transportation; DOT

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|--------------------------|------------------|
| Proper Shipping Name | Chemical Kits |
| UN Identification Number | 1993 |
| Class and Description | 9, Miscellaneous |
| Packing Group | III |
| Hazard Label | Class 9 |

International Air Transportation (IATA)

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|--------------------------|------------------|
| Proper Shipping Name | Chemical Kits |
| UN Identification Number | 1993 |
| Class and Description | 9, Miscellaneous |
| Packing Group | III |
| Hazard Label | Class 9 |

Section 15: Regulatory InformationProduct related information

The product is not subject to classification according to the sources of literature known to us.

Observe general safety regulations when handling chemicals.

Safety Statements

Avoid release to the environment.

Risk Statements

Harmful if swallowed.

U.S. Regulatory Information

Sara Listed: No.

Section 16: Other Information

Disclaimer: For Research Use Only. Not for diagnostic, therapeutic, or other uses.

Further Information: The information contained in this document is accurate to the best of our knowledge and is provided in good faith. This document is intended only as a guide to the appropriate precautionary handling of the materials contained in this kit by properly trained personnel using this kit. Final determination or suitability of any materials is the sole responsibility of the user. Arbor Assays shall not be held liable for any damage resulting from use or handling of this product.