

# **SAFETY DATA SHEET (SDS)**

**SDS – 064**

**Revision number: 1**

**Rev. 04/15**

**AUTION Staining Solution (SED)**

**Part Numbers: 73809**

**For use with the AUTION HYBRID AU-4050**

**ARKRAY USA, Inc.**

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**Technical Customer Service Phone:**

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**SAFETY DATA SHEET**

SDS No.: 73809

IDENTITY

**AUTION Staining Solution (SED)****1. PRODUCT & COMPANY IDENTIFICATION****PRODUCT NAME:** AUTION Staining Solution (SED)**PRODUCT IDENTIFICATION:**

This product is control for AU-4050 supplied by ARKRAY, Inc.

**USE OF PREPARATION:**

Diagnostic testing

**MANUFACTURER:** ARKRAY FACTORY, Inc.

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**2. HAZARDS IDENTIFICATION****Classification of hazards:****Physical & chemical danger:****Inflammable liquid:** Out of category**Human body hazards****Acute toxicity (oral):** Category 5**Skin corrosion/ irritation:** Category 3**Eye damage/ irritation:** Category 2B**Specific target organ toxicity (single exposure)** Category 1 <central nervous system, respiratory, kidney, heart>**Specific target organ toxicity (repeated exposure)** Category 1 <central nervous system, respiratory, heart>**Environmental hazards:****Hazardous to the aquatic environment****- Acute hazard:** Category 3**GHS label:****Pictogram:****Signal words:** Danger**Hazard statement:** May be harmful if swallowed  
Causes mild skin irritation

	Causes eye irritation Causes damage to organs <central nervous system, respiratory, kidney, heart> Causes damage to organs <central nervous system, respiratory, heart> through prolonged or repeated exposure Harmful to aquatic life
<b>Precautionary statement:</b>	
<b>Prevention:</b>	Wash hands thoroughly after handling. If this is not the intended use, avoid release to the environment. Do not breathe mist/vapors/spray. Do not eat, drink or smoke when using this product.
<b>Response:</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. Get medical advice/attention if you feel unwell. Call a physician if you feel unwell. IF exposed: Call a physician.
<b>Storage:</b>	Store locked up.
<b>Disposal:</b>	Dispose of contents/container in accordance with the ordinance etc. of the region.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<b>Chemical characterization:</b>	Mixture (Clear liquid)
<b>Hazardous ingredients:</b>	
<b>Chemical name, content:</b>	Ethylene glycol, 99.9% (W/W)
<b>CAS number:</b>	107-21-1

### 4. FIRST-AID MEASURES

<b>Ingestion:</b>	Consult a physician immediately.
<b>Inhalation:</b>	Remove patient to fresh air. Consult a physician immediately.
<b>Skin contact:</b>	Immediately flush skin with plenty of water. Consult a physician immediately in case of irritation.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water. Consult a physician immediately.

### 5. FIRE-FIGHTING MEASURES

<b>Extinguishing media:</b>	Use agent most appropriate to extinguish fire. Water, dry chemical, dry sand, or carbon dioxide
<b>Media that do not use:</b>	Cylinder shape pouring water
<b>Special procedures:</b>	Ethylene glycol emits carbon monoxide and dioxide fumes when burned. Wear self-contained breathing apparatus and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Precautions of human body protection:</b>	Use proper personal protective equipment as indicated in Section 8.
<b>environment:</b>	Do not scatter spilled reagent to public water streams.
<b>Methods for cleaning up:</b>	Absorb spilled reagent with inert material (e.g. dry sand), and clean up the site with water after material remove completely.

### 7. HANDLING & STORAGE

**Handling**

<b>Notes of technical manner:</b>	Use proper personal protective equipment as indicated in Section 8. Avoid contact with eyes, skin and clothing. Keep away from source of ignition.
<b>Storage:</b>	Keep away from dust and direct sunlight. Store at 2-35°C. Do not freeze. Keep away from source of ignition. Keep away from incompatible substances as indicated in Section 10.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>Managing concentration:</b>	No information available.
<b>Threshold concentration</b>	
<b>ACGIH:</b>	TWA-STEL C 100 mg/m <sup>3</sup> (H) A4 (H) Aerosol only (as an ethylene glycol)
<b>Measuring equipment</b>	
<b>Personal protection:</b>	Protective mask, goggles, rubber boots and rubber gloves, protective clothing

**9. PHYSICAL & CHEMICAL PROPERTIES**

<b>Nature of substance:</b>	Clear liquid (Dark blue)
<b>Odor:</b>	None
<b>pH:</b>	No information available
<b>Melting point/ range:</b>	No information available
<b>Boiling point/ range:</b>	No information available
<b>Flash point:</b>	No information available
<b>Relative density:</b>	No information available
<b>Specific gravity:</b>	1.113 (20/4 °C)
<b>Solubility:</b>	Miscible in all proportions with water
<b>Flammability:</b>	No information available

**10. STABILITY & REACTIVITY**

<b>Stability:</b>	Stable under ordinary conditions of use and storage
<b>Hazardous reactivity:</b>	The ethylene glycol steam generates air and an explosiveness gas in a mixture.
<b>Conditions to avoid:</b>	Heat, flames, ignition sources
<b>Incompatibility:</b>	Chlorosulfonic acid, dimethyl terephthalate, oleum, phosphorus pentasulfide, silvered-copper wire, sodium hydroxide, sulfuric acid titanium butoxide. Causes ignition at room temperature with chromium trioxide, potassium permanganate, and sodium peroxide. Causes ignition at 100°C with ammonium dichromate, silver chlorate, sodium chloride, and uranyl nitrate.
<b>Hazardous decompositions:</b>	Carbon monoxide, irritating and toxic fumes and gases dioxide.

**11. TOXICOLOGICAL INFORMATION**

<b>Acute toxicity (Oral) :</b>	Rat LD50 4000mg/kg (as ethylene glycol)
<b>Skin corrosion/ irritation:</b>	The cutaneous stimulus examination result (in the rabbit, 555mg/open and mild), and the density are exceeded 10%.(as ethylene glycol)
<b>Eye damage/ irritation:</b>	The add-back method by eye (in the rabbit, 1440mg/6h and moderate) (as ethylene glycol)
<b>Specific target organ toxicity (single exposure)</b>	(As ethylene glycol) for humans, as noted below. After 34 days after ingestion, impaired consciousness seizures, stupor is observed, then, blood chemical examination reflect an

increase in urea nitrogen and creatinine and uric acid. The histological changes are observed in tubules of renal biopsy, and showed mild pulmonary congestion. Acute effects are divided into four stages.

1) Central nervous system action occurs after 30 minutes and 12 hours after exposure.

2) Effect of cardiopulmonary exposure occurring 12-36 hours after.

3) Kidney failure seen in those who escaped death in the first and second stage.

4) Degeneration of the central nervous system.

(As ethylene glycol)

For humans: Loss of consciousness, shaking eyeballs, slight headache and low back pain, upper respiratory tract irritation

For animals: Changes in inflammatory lung and heart.

**Specific target organ toxicity  
(repeated exposure)**

**12. ECOLOGICAL INFORMATION**

**Environmental toxicity:**

It was assumed category 3 from the LC50 47mg/L by 96 hour of fishes (rainbow trout). (as an ethylene glycol)

**Remaining/ accumulation:**

No information available

**Movability in the soil:**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Residual waste:**

Dispose of in a manner consistent with federal, state, and local regulations.

**Vessel and packing materials:**

After removing the contents of the vessel, dispose of in a manner consistent with federal, state, and local regulations.

**14. TRANSPORT INFORMATION**

**Air transport**

**UN code and number:**

No information available

**Packing groups:**

No information available

**Sea transport:**

No information available

**Land transport:**

No information available

**Inland waterways transport:**

No information available

**15. REGULATORY INFORMATION**

**National regulations:**

No information available

**Labeling**

**R-phrases:**

R22 Harmful if swallowed.

**S-phrases:**

Not applicable

No chemical safety assessment has been carried out for this mixture by the supplier.

**16. OTHER INFORMATION**

**Special precaution:**

No information available

**Miscellaneous information:**

No information available

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The 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.

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