

# **SAFETY DATA SHEET (SDS)**

**SDS-AN-2435**

**Revision number: v3**

**Rev. 11/21**

**AUTION Sticks 10EA**

**Part Numbers: 73526**

**For use with the AUTION Eleven AE-4022**

**ARKRAY USA, Inc.**

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**Minneapolis, Minnesota 55439**

**Technical Customer Service Phone:**

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## SAFETY DATA SHEET

SDS No. : 73591EU  
 Issue Date : 18 Mar. 1998  
 Revision Date : 30 Nov. 2021  
 Ver.6.0

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

#### 1.1 Product identifier

Product name : AUTION Sticks 10EA

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

This product is an in vitro diagnostic reagent strip and is intended for professional use with the AUTION 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

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#### 1.4 Emergency telephone number

Emergency phone : +31-20-545-2450 (9:00~17:00)

### 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

##### Glucose

Component	Conc. [wt%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
Glucose oxidase (GOD)	< 0.1	—	—	9001-37-0	—

4-Aminoantipyrine (4-AAP)	< 0.1	C <sub>11</sub> H <sub>13</sub> N <sub>3</sub> O	201-452-3	83-07-8	Acute Tox. (Oral) 4; H302, Skin Irrit. 2; H315, Eye Irrit. 2; H319
1-Naphthole- 3,6-disulfonic acid, disodium salt	< 0.1	C <sub>10</sub> H <sub>6</sub> Na <sub>2</sub> O <sub>7</sub> S <sub>2</sub>	243-754-8	20349-39-7	Skin Irrit. 2; H315, Eye Irrit. 2A; H319
Peroxidase (POD)	< 0.01	—	—	9003-99-0	Skin Irrit. 2; H315, Eye Irrit. 2; H319, Repr. 1B; H360, STOT SE (central nervous system, alimentary canal) 1; H370, STOT SE (respiratory tract irritation) 3; H335, STOT RE (kidney) 1; H372

**Protein**

Component	Conc. [%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
Tetrabromophenol blue (TBPB)	< 0.01	C <sub>19</sub> H <sub>6</sub> Br <sub>8</sub> O <sub>5</sub> S	224-622-9	4430-25-5	Skin Irrit. 2; H315, Eye Irrit. 2A; H319

**Bilirubin**

Component	Conc. [%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
2-Methyl- 5-nitroaniline	< 0.01	C <sub>7</sub> H <sub>8</sub> N <sub>2</sub> O <sub>2</sub>	202-765-8	99-55-8	Acute Tox. (Oral) 3; H301, Acute Tox. (Inhalation) 3; H331, Skin Irrit. 2; H315, Carc.2;H351 Aquatic Chronic 3; H412
Sodium nitrite	< 0.01	NaNO <sub>2</sub>	231-555-9	7632-00-0	Ox. Sol. 3; H272, Acute Tox. (Oral) 3; H301, Eye Irrit. 2A; H319, STOT SE (blood, cardiovascular system) 2; H371, STOT RE (blood) 2; H373 Aquatic Acute 1; H400, Aquatic Chronic 1; H410

**Urobilinogen**

Component	Conc. [%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
3,3'-Dimethoxy-4,4'-diazo-biphenyl tetrafluoride borate	< 0.01	C <sub>14</sub> H <sub>12</sub> B <sub>2</sub> F <sub>8</sub> N <sub>4</sub> O <sub>2</sub>	—	—	—

**pH**

Component	Conc. [%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
Bromocresol green	< 0.01	C <sub>21</sub> H <sub>14</sub> Br <sub>4</sub> O <sub>5</sub> S	200-972-8	76-60-8	—
Bromoxyleneol blue	< 0.01	C <sub>23</sub> H <sub>20</sub> Br <sub>2</sub> O <sub>5</sub> S	254-780-4	40070-59-5	—

**Specific Gravity**

Component	Conc. [%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
Di(2-ethylhexyl) phosphoric acid (D-2-EHPA)	< 0.1	C <sub>16</sub> H <sub>35</sub> O <sub>4</sub> P	206-056-4	298-07-7	Acute Tox. (Oral) 5; H303, Acute Tox. (Dermal) 4; H312, Skin Corr. 1C; H314, Eye Dam. 1; H318
Bromothymol blue	< 0.01	C <sub>27</sub> H <sub>28</sub> Br <sub>2</sub> O <sub>5</sub> S	200-971-2	76-59-5	—

**Blood**

Component	Conc. [%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
Cumen hydroperoxide (CHP)	< 0.1	C <sub>9</sub> H <sub>12</sub> O <sub>2</sub>	201-254-7	80-15-9	Flam. Liq. 4; H227, Org. Perox. F; H242, Acute Tox. (Oral) 4; H302, Acute Tox. (Dermal) 3; H311, Acute Tox. (Inhalation) 3; H331, Skin Corr. 1B; H314, Eye Dam. 1; H318, STOT SE (respiratory system) 2; H371, Aquatic Acute 2; H401, Aquatic Chronic 2; H411
3,3'-5,5'-Tetramethyl benzidine (TMBZ)	< 0.1	C <sub>16</sub> H <sub>20</sub> N <sub>2</sub>	259-364-6	54827-17-7	Skin Irrit. 2; H315, Eye Irrit. 2A; H319

**Ketones**

Component	Conc. [%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
Sodium nitroprusside	< 0.1	C <sub>5</sub> FeN <sub>6</sub> Na <sub>2</sub> O·2H <sub>2</sub> O	—	13755-38-9	Acute Tox. (Oral) 3; H301

**Nitrite**

Component	Conc. [%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
Sulfanilamide	< 0.1	C <sub>6</sub> H <sub>8</sub> N <sub>2</sub> O <sub>2</sub> S	200-563-4	63-74-1	Acute Tox. (Oral) 5; H303, Skin Irrit. 2; H315, Eye Irrit. 2A; H319
N-1-Naphthyl-ethylenediamine dihydrochloride (NEDA-2HCl)	< 0.01	C <sub>12</sub> H <sub>14</sub> N <sub>2</sub> ·2HCl	215-981-2	1465-25-4	Skin Irrit. 2; H315, Eye Irrit. 2A; H319

**Leucocytes**

Component	Conc. [%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
3-(N-Toluenesulfonyl-L-alanyloxy) indole (TAI)	< 0.01	C <sub>18</sub> H <sub>18</sub> N <sub>2</sub> O <sub>4</sub> S	—	75062-54-3	Acute Tox. (Oral) 4; H302, Skin Irrit. 2; H315, Eye Irrit. 2A; H319, STOT SE (respiratory tract irritation) 3; H335
2-Methoxy-4-(n-morpholino-benzenediazonium (MMB)	< 0.01	C <sub>11</sub> H <sub>14</sub> N <sub>3</sub> O <sub>2</sub> ·0.5 Cl <sub>4</sub> Zn	—	67801-08-5	—

**4. First aid measures****4.1 Description of first aid measures****General notes**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**Following inhalation**

Remove casualty to fresh air and keep at rest. If trouble breathing, get medical attention.

**Following skin contact**

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

**Following eye contact**

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

**Following ingestion**

Rinse mouth. Give one or two glasses of water to drink. Never give anything by mouth if unconscious.

**Self-protection of the first aider**

Wear protective equipment to avoid contact with skin and eyes.

**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**

Not specified

**5.2 Special hazards arising from the substance or mixture**

Toxic and irritating dust, fumes, or smoke may be emitted.

**5.3 Advice for firefighters**

Fire-fighters should wear proper protective equipment.

**6. Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****6.1.1 For non-emergency personnel**

Wear protective equipment. See Section 8.

**6.1.2 For emergency responder**

Wear protective gloves.

**6.2 Environmental precautions**

Do not scatter spilled reagent to public water streams.

**6.3 Methods and material for containment and cleaning up****6.3.1 For containment:**

Pick up the product and wipe the contaminated area with damp cloth. Rinse the used cloth.

**6.3.2 For cleans up:**

Rinse the contaminated area with plenty of water.

**6.3.3 Other information:**

Not available.

**6.4 Reference to other sections**

For protective equipment see Section 8.

**7. Handling and storage****7.1 Precautions for safe handling****Preventive measures (Exposure Control for handling personnel)**

Use proper personal protective equipment as indicated in Section 8.

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

Avoid humidity, direct sunlight, and heat. Store the product at temperature of 1 - 30 °C. Keep container tightly closed.

**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**

The product does not contain any substances for which the allowable concentration has been set.

**8.2 Exposure controls****8.2.1 Appropriate engineering controls**

Handle in a well-ventilated area.

**8.2.2 personal protection equipment:****8.2.2.1 Eye/face protection**

Use safety glasses, if necessary.

**8.2.2.2 Skin protection**

Hand protection

Use rubber gloves, if necessary.

Other skin protection:

Not necessary

**8.2.2.3 Respiratory protection**

Not necessary

**8.2.2.4 Thermal hazards**

No information available.

**8.2.3 Environmental exposure controls**

For environmental exposure controls, see Section 6.2.

**9. Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Physical state	Solid
Colour	White
Odour	No data available
Odour threshold	No data available
Melting point/freezing point	No data available
Boiling point and boiling range	No data available
Flammability	No data available
Lower and upper explosion limit	Not applicable
Flash Point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
pH	No data available
Kinematic viscosity	Not applicable
Solubility	No data available

Partition coefficient n-octanol/water(log value)	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	Not applicable
Particle characteristics	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

Store at a distance from incompatible materials.

### 10.6 Hazardous decomposition products

None

## 11. Toxicological information

### 11.1 Information on hazard classes as defined in Regulation(EC) No 1272/2008

#### Glucose

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.(Mixture) orl-rat LD50:1700 mg/kg(4-Aminoantipyrine (4-AAP))
Dermal	Based on available data, the classification criteria are not met.
Inhalation	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.



**Protein**

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.
Dermal	Based on available data, the classification criteria are not met.
Inhalation	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

**Bilirubin**

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.(Mixture) orl-rat LD50:180 mg/kg(Sodium nitrite)
Dermal	Based on available data, the classification criteria are not met.
Inhalation	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.(Mixture) eye-rbt 500 mg/24H MLD(Sodium nitrite)
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.(Mixture) mmo-sat 10 ug/plate (+S9)( 2-Methyl-5-nitroaniline) mmo-sat 33300 ng/plate (-S9)
Carcinogenicity	Based on available data, the classification criteria are not met.(Mixture) orl-mus TDLo:150 g/kg/78W-C( 2-Methyl-5-nitroaniline)
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

**Urobilinogen**

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.
Dermal	Based on available data, the classification criteria are not met.
Inhalation	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

**pH**

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.(Mixture) orl-rat LD50:7060 mg/kg(Bromocresol green)
Dermal	Based on available data, the classification criteria are not met.(Mixture) skn-rbt LDLo:20 g/kg(Bromocresol green)
Inhalation	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.(Mixture) skn-rbt 400 mg open MLD(Bromocresol green)
Serious eye damage/irritation	Based on available data, the classification criteria are not met.(Mixture) eye-rbt 500 mg/24H MLD(Bromocresol green)
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.(Mixture) cyt-hmn-fbr 12000 ppm(Bromocresol green) mmo-sat 11 pph (+S9) mmo-esc 140 g/L (-S9)
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

**Specific Gravity**

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.(Mixture) orl-rat LD50:4940 mg/kg(Di(2-ethylhexyl) phosphoric acid (D-2-EHPA)) orl-rat LD50:7060 mg/kg(Bromothymol blue)
Dermal	Based on available data, the classification criteria are not met.(Mixture) skn-rbt LD50:1250 uL/kg(Di(2-ethylhexyl) phosphoric acid

	(D-2-EHPA))
	skn-rbt LDLo:20 g/kg(Bromothymol blue)
Inhalation	Based on available data, the classification criteria are not met.(Mixture)
	ihl-rat LC50:20000 ppm/10H(Bromothymol blue)
Skin corrosion/irritation	Based on available data, the classification criteria are not met.(Mixture)
	skn-rbt 5 mg/24H SEV(Di(2-ethylhexyl) phosphoric acid (D-2-EHPA))
	skn-rbt 400 mg open MLD(Bromothymol blue)
Serious eye damage/irritation	Based on available data, the classification criteria are not met.(Mixture)
	eye-rbt 250 ug/24H SEV(Di(2-ethylhexyl) phosphoric acid (D-2-EHPA))
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.(Mixture)
	cyt-hmn-fbr 12000 ppm(Bromothymol blue)
	mno-sat 11 pph (+S9)
	mno-esc 140 g/L (-S9)
Carcinogenicity	Based on available data, the classification criteria are not met.(Mixture)
	orl-mus TDLo:320 mg/kg/50W-I(Bromothymol blue)
	rec-mus TDLo:120 g/kg/18W-I
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

**Blood**

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.(Mixture)
	orl-rat LD50:382 mg/kg(Cumen hydroperoxide (CHP))
Dermal	Based on available data, the classification criteria are not met.(Mixture)
	skn-rat LD50:530 mg/kg(Cumen hydroperoxide (CHP))
Inhalation	Based on available data, the classification criteria are not met.(Mixture)
	rat LC50:1.4 mg/L(Cumen hydroperoxide (CHP))
Skin corrosion/irritation	Based on available data, the classification criteria are not met.(Mixture)
	Contact may caue burns to skin and eyes.(Cumen hydroperoxide (CHP))

Serious eye damage/irritation	Based on available data, the classification criteria are not met.(Mixture)
	Corrosive to the eyes, the skin. (Cumene hydroperoxide (CHP))
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

**Ketones**

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.(Mixture)
	orl-rat LD50:113 mg/kg(Sodium nitroprusside)
Dermal	Based on available data, the classification criteria are not met.
Inhalation	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

**Nitrite**

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.(Mixture)
	orl-rat LD50:3900 mg/kg(Sulfanilamide)
Dermal	Based on available data, the classification criteria are not met.
Inhalation	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.(Mixture)
	mno-esc 50 ug/disc (-S9)( Sulfanilamide)
	cyt-oin-par 375 mg/kg
	dna-esc 50 umol/L
	dnd-rat-lvr 30 umol/L

	mmo-sat 800 ug/plate (-S9) (N-1-Naphthyl -ethylenediamine dihydrochloride (NEDA-2HCl))
Carcinogenicity	Based on available data, the classification criteria are not met.(Mixture)
	scu-rat TDLo:135 mg/kg/9W-I( Sulfanilamide)
Reproductive toxicity	Based on available data, the classification criteria are not met.(Mixture)
	unr-wmn TDLo:974 mg/kg (34-37W preg)( Sulfanilamide) orl-rat TDLo:22 mg/kg (1-22D preg)
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

**Leucocytes**

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.(Mixture)
	orl-rat LD50:15840 mg/kg(3-(N-Toluenesulfonyl-L-alanyloxy) indole (TAI))
Dermal	Based on available data, the classification criteria are not met.
Inhalation	Based on available data, the classification criteria are not met.(Mixture)
	ihl-rat LC50:48000 ppm/4H(3-(N-Toluenesulfonyl-L-alanyloxy) indole (TAI))
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.(Mixture)
	eye-rbt 10 mg MLD(3-(N-Toluenesulfonyl-L-alanyloxy) indole (TAI))
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.(Mixture)
	cyt-ham-fbr 500 mg/L cyt-rat-scu 7.5 mL/kg/12W-I (3-(N-Toluenesulfonyl-L-alanyloxy) indole (TAI))
Carcinogenicity	Based on available data, the classification criteria are not met.(Mixture)
	ihl-rat TCLo:1000 ppm/4H/59W-I ihl-mus TCLo:9018 ppm/6H/2Y-I (3-(N-Toluenesulfonyl-L-alanyloxy) indole (TAI))
Reproductive toxicity	Based on available data, the classification criteria are not met.(Mixture)

	ihl-mus TClO:200 ppm (6-17D preg) ihl-rat TClO:1000 ppm/6H (8-16D preg) (3-(N-Toluenesulfonyl-L-alanyloxy) indole (TAI))
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

### 11.2 Information on other hazards

No further information available.

## 12. Ecological information

### 12.1 Toxicity

#### Glucose, Protein, Bilirubin, Urobilinogen, pH, Ketones, Nitrite, Leucocytes

Based on available data, the classification criteria are not met.

#### Specific Gravity

Based on available data, the classification criteria are not met.(Mixture)

Fish: 48h LC50:148 mg/L (Oryzias latipes) (Di(2-ethylhexyl) phosphoric acid (D-2-EHPA))

Crustacea: 48h EC50:15 mg/L (Daphnia magna)

Algae: 72h EC50:>99 mg/L (Selenastrum capricornutum)

72h NOEC:9.3 mg/L (Selenastrum capricornutum)

#### Blood

Based on available data, the classification criteria are not met.(Mixture)

Fish : Rainbow trout ;LC50/96H 3.9 mg/L(Cumen hydroperoxide (CHP))

### 12.2 Persistence and degradability

#### Glucose, Protein, Bilirubin, Urobilinogen, pH, Blood, Ketones, Nitrite, Leucocytes

Based on available data, the classification criteria are not met.

#### Specific Gravity

Based on available data, the classification criteria are not met.(Mixture)

7 % (by BOD) (Di(2-ethylhexyl) phosphoric acid (D-2-EHPA))

### 12.3 Bioaccumulative potential

#### Glucose, Protein, Bilirubin, Urobilinogen, pH, Blood, Ketones, Nitrite, Leucocytes

Based on available data, the classification criteria are not met.

#### Specific Gravity

Based on available data, the classification criteria are not met.(Mixture)

1.1 - 2.4 (conc. 1 mg/L) , 2.7 - 6.0 (conc. 0.1 mg/L) (Di(2-ethylhexyl) phosphoric acid (D-2-EHPA))

### 12.4 Mobility in soil

#### Glucose, Protein, Urobilinogen, pH, Blood, Ketones, Leucocytes

Based on available data, the classification criteria are not met.

#### Bilirubin

Based on available data, the classification criteria are not met.(Mixture)

Log Pow: 1.96 (2-Methyl-5-nitroaniline)

Soil adsorption (Koc): 277

Log Pow: -3.7(Sodium nitrite)

**Specific Gravity**

Based on available data, the classification criteria are not met.(Mixture)

Log Pow: 6.07 (Di(2-ethylhexyl) phosphoric acid (D-2-EHPA))

Soil adsorption (Koc):  $1.7 \times 10^4$

Henry's Law (PaM<sub>3</sub>/mol):  $4.2 \times 10^{-3}$

**Nitrite**

Based on available data, the classification criteria are not met.(Mixture)

Log Pow: -0.57 (Sulfanilamide)

Soil adsorption (Koc): 11

Henry's Law (PaM<sub>3</sub>/mol):  $1.5 \times 10^{-5}$

**12.5 Results of PBT and vPvB assessment**

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

**12.6 Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100.

**12.7 Other adverse effects**

No information available.

**13. Disposal considerations****13.1 Waste treatment methods****13.1.1 Product/Packaging disposal**

Dispose of the product in accordance with regulations.

**13.1.2 Waste treatment-relevant information**

Dispose of as unused product.

**13.1.3 Sewage disposal-relevant information**

Do not dump this product into sewers, on the ground or into any body of water.

**13.1.4 Other disposal recommendations**

If used product, ask a licensed disposal company.

Observe all federal, state, and local environmental regulation.

**14. Transport information****14.1 UN number or ID number**

ADR/RID: N/A

IMDG: N/A

IATA: N/A

**14.2 UN proper shipping name**

ADR/RID: N/A

IMDG: N/A

IATA: N/A

**14.3 Transport hazard class(es)**

ADR/RID: N/A

IMDG: N/A

IATA: N/A

**14.4 Packing group**

ADR/RID: N/A

IMDG: N/A

IATA: N/A

**14.5 Environmental hazards**

ADR/RID: N/A

IMDG Marine pollutant: N/A

IATA: N/A

**14.6 Special precautions for user**

When transporting, make sure that there are no leaks in the container, load it so that it does not fall over, fall, or be damaged, and make sure to prevent it from collapsing.

**14.7 Maritime transport in bulk according to IMO instruments**

No relevant information available.

**15. Regulatory information****15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture**

(EC) No 1907/2006 (REACH)

(EC) No 1272/2008 (CLP)

(EU) No 453/2010

(EU) No 2015/ 830

(EU) 2020/878

**15.2 Chemical safety assessment**

No chemical safety assessment has been carried out.

**16. Other information****The date of preparation and revision of the SDS**

Ver.1.0	Prepared on 18 March 1998.	
Ver.2.0	Revised on 10 December 2002:	Modified in accordance with the requirements of Directive 2001/58/EC.
Ver.2.1	Revised on 22 October 2003:	Changed the Manufacturer from "ARKRAY FACTORY" to "ARKRAY, Inc" in "Company information."
Ver.2.2	Revised on 1 November 2004:	Added to the European representative
Ver.2.3	Revised on 1 November 2005:	Changed the Manufacturer from "ARKRAY, Inc" to "ARKRAY FACTORY" in "Company information."
Ver.2.4	Revised on 8 January 2010:	Changed Telephone number & Facsimile number of the Manufacturer in "Company information."
Ver.3.0	Revised on 28 July 2010:	Modified to fit ISO11014-1
Ver.4.0	Revised on 10 December 2011:	Revised "3.COMPOSITION / INFORMATION ON INGREDIENTS."
Ver.5.0	Revised on 1 June 2015:	Modified in accordance with the requirements of Regulation (EC) No. 1907/2006.
Ver.5.1	Revised on 29 March 2016:	European representative's address has changed.
Ver.5.2	Revised on 15 February 2017:	Corrected the wording in 15.1.
Ver.6.0	Revised on 30 November 2021:	Revised a new format in accordance with Regulation(EU) 2020/878.

**Key literature references**

Package insert

IMDG Code

IATA Dangerous Goods Regulations



**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

Not applicable

**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.