

## SAFETY DATA SHEET

According to JIS Z 7253:2012  
**Revision Date** 04-Jul-2018  
 Version 3

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	LabAssay™ ALP
<b>Product code</b>	291-58601
<b>CAS No</b>	N/A

<b>Manufacturer</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-5964
<b>Supplier</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-2029
<b>Emergency telephone number</b>	+81-6-6203-3741 / +81-3-3270-8571
<b>Recommended uses and restrictions on use</b>	For research purposes
<b>Announcement of company name change</b>	Company name has changed since April 1, 2018. Former name was "Wako Pure Chemical Industries, Ltd."

## Section 2: HAZARDS IDENTIFICATION

**GHS classification****Classification of the substance or mixture**

Respiratory sensitization

Skin sensitization

Carcinogenicity

Category 1  
 Category 1  
 Category 1A

**Pictograms****Signal word**

Danger

**Hazard statements**

- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H350 - May cause cancer
- H317 - May cause an allergic skin reaction

**Precautionary statements-(Prevention)**

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required.
- Avoid breathing dust/fume/gas/mist/vapors/spray

- In case of inadequate ventilation wear respiratory protection
- Contaminated work clothing should not be allowed out of the workplace
- Protective gloves

**Precautionary statements-(Response)**

- IF exposed or concerned: Get medical advice/attention
- IF ON SKIN: Wash with plenty of soap and water
- If skin irritation or rash occurs: Get medical advice/attention
- Wash contaminated clothing before reuse.
- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

**Precautionary statements-(Storage)**

- Store locked up.

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant

**Others**

**Other hazards** Not available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Kit (Set of mixtures)

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS No.
Substrate Tablet	-	N/A	N/A	N/A	N/A-29-5861
Buffer Solution	-	N/A	N/A	N/A	N/A-29-5862
Stop Solution	-	N/A	N/A	N/A	N/A-29-5863
Standard Solution	-	N/A	N/A	N/A	N/A-29-5864

**Impurities and/or Additives :**

Hazardous Component

Not applicable

Sodium Hydroxide 0.8%, Formaldehyde 0.104%, Chloroform 0.7%

**Substances Remarks:**

The composition considered to be hazardous are listed in the above. The remaining ingredients are not hazardous substances, or exist at below reportable level.

### Section 4: FIRST AID MEASURES

**Inhalation**

Remove to fresh air. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

**Ingestion**

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Protection of first-aiders**

Use personal protective equipment as required.

### Section 5: FIRE FIGHTING MEASURES

**Suitable extinguishing media**

Water spray (fog), Carbon dioxide (CO2), Foam, Extinguishing powder, Sand

**Unsuitable extinguishing media**

No information available

**Special extinguishing method**

No information available

**Specific hazards arising from the chemical product**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Protection of fire-fighters**

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

**Section 6: ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

**Environmental precautions**

To be careful not discharged to the environment without being properly handled waste water contaminated.

**Methods and materials for contaminant and methods and materials for cleaning up**

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

**Recovery, neutralization**

No information available

**Secondary disaster prevention measures**

Clean contaminated objects and areas thoroughly observing environmental regulations.

**Section 7: HANDLING AND STORAGE****Handling****Technical measures**

Use with local exhaust ventilation.

**Precautions**

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

**Safety handling precautions**

Use personal protective equipment as required.

**Storage****Safe storage conditions****Storage conditions**

Store away from sunlight in a cool (2-10 °C) well-ventilated dry place.

**Safe packaging material**

Glass, Polyethylene

**Incompatible substances**

Strong oxidizing agents

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****Engineering controls**

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

**Exposure limits**

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Sodium Hydroxide 1310-73-2	2mg/m <sup>3</sup>	N/A	Ceiling: 2 mg/m <sup>3</sup>
Formaldehyde 50-00-0	Ceiling: 0.2 ppm Ceiling: 0.24 mg/m <sup>3</sup> TWA: 0.1 ppm OEL	ISHL/ACL: 0.1 ppm	Ceiling: 0.3 ppm

	TWA: 0.12 mg/m <sup>3</sup> OEL ISHL/ACL: 0.1 ppm		
Chloroform 67-66-3	TWA: 14.7 mg/m <sup>3</sup> OEL TWA: 3 ppm OEL Skin ISHL/ACL: 3 ppm	ISHL/ACL: 3 ppm	TWA: 10 ppm

**Personal protective equipment****Respiratory protection**

Protective mask

**Hand protection**

Protection gloves

**Eye protection**

protective eyeglasses or chemical safety goggles

**Skin and body protection**

Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**Form****Appearance**

liquid tablet

**Odor**

No data available

**pH**

No data available

**Melting point/freezing point**

No data available

**Boiling point, initial boiling point and boiling range**

No data available

**Flash point**

No data available

**Evaporation rate:**

No data available

**Flammability (solid, gas):**

No data available

**Upper/lower flammability or explosive limits****Upper :**

No data available

**Lower :**

No data available

**Vapour pressure**

No data available

**Vapour density**

No data available

**Specific Gravity / Relative density**

No data available

**Solubilities**

water : soluble, .

**n-Octanol/water partition coefficient:(log Pow)**

No data available

**Auto-ignition temperature:**

No data available

**Decomposition temperature:**

No data available

**Viscosity (coefficient of viscosity)**

No data available

**Dynamic viscosity**

No data available

## Section 10: STABILITY AND REACTIVITY

**Stability****Stability**

Stable under recommended storage conditions.

**Reactivity**

No data available

**Hazardous reactions**

None under normal processing

**Conditions to avoid**

Extremes of temperature and direct sunlight

**Incompatible materials**

Strong oxidizing agents

**Hazardous decomposition products**Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Phosphorus oxide

## Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
p-Nitrophenol	109 mg/kg ( Rat )	1024 mg/kg ( Rat )	> 4.7 mg/L ( Rat ) 4 h
Sodium Hydroxide	325 mg/kg ( Rabbit )	N/A	N/A
Formaldehyde	100 mg/kg ( Rat )	270 mg/kg ( Rabbit )	0.578 mg/L ( Rat ) 4 h
Chloroform	695 mg/kg ( Rat )	N/A	9636 ppm / 4 h ( Rat )

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas-source information
p-Nitrophenol	LD50 (orl, rat) : 50 mg/kg, 620 mg/kg(CERIHazard Data Collection 2001-65 (2002)), LD50 (orl, rat) : 202 mg/kg(Risk Assessment of the Ministry of the Environment Vol. 4 (2005)), LD50 (orl, rat) : 220 mg/kg(CICAD 20 (2000)), LD50 (orl, rat) : 230 mg/kg(ATSDR (1992)).	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS Classification results.	Based on the NITE GHS Classification results.	Based on the NITE GHS Classification results.
Chloroform	Based on the NITE GHS Classification results.	Based on the NITE GHS Classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust-source information	Acute toxicity -inhalation mist-source information
p-Nitrophenol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS Classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

**Skin irritation/corrosion**

Chemical Name	Skin corrosion irritation source information
p-Nitrophenol	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS Classification results.

**Serious eye damage/ irritation**

Chemical Name	Serious eye damage source information
p-Nitrophenol	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS Classification results.

**Respiratory or skin sensitization**

Chemical Name	Respiratory, Skin sensitization source information
p-Nitrophenol	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

Chemical Name	Mutagenic source information
p-Nitrophenol	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.

Chloroform	Based on the NITE GHS Classification results.
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**Carcinogenicity**

Chemical Name	Carcinogenicity source information
p-Nitrophenol	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS Classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Formaldehyde 50-00-0	Known	Group 1	A2	Group 2A
Chloroform 67-66-3	Reasonably Anticipated	Group 2A Group 2B Group 3	A3	Group 2B

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
p-Nitrophenol	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS Classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
p-Nitrophenol	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS Classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
p-Nitrophenol	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS Classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
p-Nitrophenol	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Crustacea
p-Nitrophenol	EC50: <i>Desmodesmus subspicatus</i> 23.7 mg/L 96 h	LC50: Rainbow trout 2.2 mg/L 96 h	EC50: <i>Daphnia magna</i> 3.1 - 7.1 mg/L 48 h
Sodium Hydroxide	N/A	N/A	LC50: <i>Ceriodaphnia quadrangula</i> 40 mg/L 48 h
Formaldehyde	N/A	LC50: <i>Morone saxatilis</i> 1.8 mg/L 96 h	LC50: <i>Daphnia magna</i> 2 mg/L 48 h EC50: <i>Daphnia magna</i> 11.3 - 18 mg/L 48 h
Chloroform	EC50: <i>Chlamydomonas</i> =13.3mg/L 72h	LC50: Rainbow trout 1.24-2.03mg/L 96h	EC50: <i>Daphnia magna</i> 29mg/L 48h

**Other data**

Chemical Name	Aquatic toxicity -Acute- source information	Aquatic toxicity -Chronic- source information
p-Nitrophenol	LC50(Oncorhynchus mykiss):2.2mg/L/96hr(ECETOC TR91, 2003).	Based on the NITE GHS classification results.
Sodium Hydroxide	Based on the NITE GHS Classification results.	Based on the NITE GHS classification results.
Formaldehyde	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS Classification results.	Based on the NITE GHS Classification results.

<b>Persistence and degradability</b>	No information available
<b>Bioaccumulative potential</b>	No information available
<b>Mobility in soil</b>	No information available
<b>Hazard to the ozone layer</b>	No information available
<b>Mobility</b>	

### Section 13: DISPOSAL CONSIDERATIONS

#### Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### Section 14: TRANSPORT INFORMATION

#### ADR/RID

<b>UN number</b>	UN1824
<b>Proper shipping name:</b>	Sodium hydroxide solution
<b>UN classification</b>	8
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	III
<b>Marine pollutant</b>	Not applicable

#### IMDG

<b>UN number</b>	UN1824
<b>Proper shipping name:</b>	Sodium hydroxide solution
<b>UN classification</b>	8
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	III
<b>Marine pollutant (Sea)</b>	Not applicable
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	No information available

#### IATA

<b>UN number</b>	UN1824
<b>Proper shipping name:</b>	Sodium hydroxide solution
<b>UN classification</b>	8
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	III
<b>Environmentally Hazardous Substance</b>	Not applicable

### Section 15: REGULATORY INFORMATION

#### International Inventories

EINECS/ELINCS Listed  
TSCA Listed

**Japanese regulations**

<b>Fire Service Act</b>	Not applicable
<b>Poisonous and Deleterious Substances Control Law</b>	Not applicable
<b>Industrial Safety and Health Act</b>	Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18) Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.548,160 Priority Assessment Chemical Substances (Law Article 2, Para.5)
<b>Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc</b>	
<b>Regulations for the carriage and storage of dangerous goods in ship</b>	Corrosive Substances (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
<b>Civil Aeronautics Law</b>	Corrosive Substances (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)
<b>Marine Pollution Prevention Law</b>	Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Y
<b>Pollutant Release and Transfer Register Law</b>	Specified Class 1 No.
<b>Specified Class 1-No.</b>	411
<b>Water Pollution Control Act</b>	Specified substances(Law Art.2 Para.4, Enforcement Order Art.3-3)
<b>Export Trade Control Order</b>	Not applicable

## Section 16: OTHER INFORMATION

**Key literature references and sources for data etc.**

NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
 IATA dangerous Goods Regulations  
 RTECS:Registry of Toxic Effects of Chemical Substances  
 Japan Industrial Safety and Health Association GHS Model SDS  
 Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.  
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
 etc

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GHS Classification is according to JIS Z7252(2014). \*JIS: Japanese Industrial Standards

**Product information**

You might get a product which indicates a former company name, during the period of transition.

**End of Safety Data Sheet**