SAFETY DATA SHEET

According to JIS Z 7253:2012
Revision Date 05-Jul-2018
Version 1.01

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name	LabAssayTM Ammonia
Product code	295-78901
CAS No	N/A

Manufacturer
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

Supplier
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

Emergency telephone number
+81-6-6203-3741 / +81-3-3270-8571

Recommended uses and restrictions on use
For research purposes

Announcement of company name change
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

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Germ cell mutagenicity	Category 1B
Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 2, Category 3
Category 2 respiratory system, cardiovascular system, kidneys, nervous system	
Category 3 Respiratory tract irritation	
Specific target organ toxicity (repeated exposure)	Category 2
Category 2 central nervous system, thymus, spleen, kidneys, blood system, digestive system, liver, cardiovascular system, respiratory system	
Aquatic environment (acute hazard)	Category 3
Aquatic environment (long-term hazard)	Category 3

Pictograms

Signal word Danger

Hazard statements

H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H302 - Harmful if swallowed
H340 - May cause genetic defects
H360 - May damage fertility or the unborn child
H335 - May cause respiratory irritation
H402 - Harmful to aquatic life
H412 - Harmful to aquatic life with long lasting effects
H371 - May cause damage to the following organs: respiratory system, cardiovascular system, kidneys, nervous system
H373 - May cause damage to the following organs through prolonged or repeated exposure: central nervous system, thymus, spleen, kidneys, blood system, digestive system, liver, cardiovascular system, respiratory system

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.
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Do not breathe dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Avoid release to the environment

Precautionary statements-(Response)

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER or doctor/physician
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Wash contaminated clothing before reuse.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Call a POISON CENTER or doctor/physician if you feel unwell.
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- Rinse mouth.
- Do NOT induce vomiting.

Precautionary statements-(Storage)

- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed

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.
Deproteinizing Reagent	-	N/A	N/A	N/A	N/A-29-7891
Chromogen Reagent A	-	N/A	N/A	N/A	N/A-29-7892
Chromogen Reagent B	-	N/A	N/A	N/A	N/A-29-7893
Chromogen Reagent C	-	N/A	N/A	N/A	N/A-29-7894
Ammonia Standard Solution	-	N/A	N/A	N/A	N/A-29-7895
Dilute Solution for Standard	-	N/A	N/A	N/A	N/A-29-7896

Impurities and/or Additives： Not applicable

Hazardous Component Potassium Hydroxide<5%, Phenol <5%, Sulfuric Acid <2%, Sodium pentacyanonitrosylferrate(II)

dihydrate 0.015%

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 contaminent and methods and materials for cleaning up

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

Recoverly, 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	Keep container protect from light tightly closed. Store in a cool (2-10 °C) place. Store locked up.
Safe packaging material	Polyethylene, Glass
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 tungstate(VI) dihydrate 10213-10-2	N/A	N/A	STEL: 3 mg/m³ W TWA: 1 mg/m³ W
Potassium Hydroxide 1310-58-3	Maximum ; 2mg/m³	N/A	Ceiling: 2 mg/m³
Phenol 108-95-2	TWA: 5 ppm OEL TWA: 19 mg/m³ OEL Skin	N/A	TWA: 5 ppm Skin
Sulfuric Acid 7664-93-9	1mg/m³	N/A	TWA 0.2mg/m³
Sodium pentacyanonitrosylferrate(III) dihydrate 13755-38-9	N/A	N/A	TWA: 1 mg/m³ Fe

Personal protective equipment

Respiratory protection	Protective mask
Hand protection	Impermeable protective 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	Kit (Set of mixtures)
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	No data available
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	May be altered by light.
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 monooxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Sulfur oxides (SOx), Metal oxides

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium pentacyanonitrosylferrate(III) dihydrate	20mg/kg (Rat)	N/A	N/A

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Potassium Hydroxide	LD50(orl,rat): 284mg/kg(Statistics calculated value)	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Phenol	LD50(orl,rat): 414 mg/kg (Risk Assessment of the Ministry of the Environment (2002)),LD50(orl,rat):512 mg/kg (EHC 161 (1994))、LD50(orl,rat):400 mg/kg (EHC 161 (1994))、LD50(orl,rat):340 mg/kg (EHC 161 (1994))、LD50(orl,rat):445 mg/kg (EHC 161 (1994)).	LD50(skn,rat):670 mg/kg (EHC 161 (1994))、LD50(skn,rabbit):850 mg/kg and 1,400 mg/kg (EHC 161 (1994)).	Based on the NITE GHS classification results.
Sulfuric Acid	LD50 (orl,rat)：2140mg/kg(SIDS, 2001).	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	LD50 (orl,rat)：99 mg/kg(anhydrate)(RTECS (2010)：Original literature Arzneimittel-Forschung. Drug Research: 24, 308, 1974)	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
Potassium Hydroxide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Phenol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sulfuric Acid	Based on the NITE GHS classification results.	LC50(ihl,rat): 0.375mg/L/4h, LC50(ihl,rat): 347ppm/h(:0.347mg/L/4h)(SIDS, 2001).	LC50(ihl,rat): 0.375mg/L/4h)：347ppm/h (4 hours equivalent：0.347mg/L) (SIDS, 2001).
Sodium pentacyanonitrosylferrate(III) dihydrate	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
Potassium Hydroxide	Based on the NITE GHS classification results.
Phenol	Based on the NITE GHS classification results.
Sulfuric Acid	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage source information
Potassium Hydroxide	Based on the NITE GHS classification results.
Phenol	Based on the NITE GHS classification results.
Sulfuric Acid	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory, Skin sensitization source information
Potassium Hydroxide	Based on the NITE GHS classification results.
Phenol	Based on the NITE GHS classification results.
Sulfuric Acid	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	Mutagenic source information
Potassium Hydroxide	Based on the NITE GHS classification results.
Phenol	Based on the NITE GHS classification results.
Sulfuric Acid	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Potassium Hydroxide	Based on the NITE GHS classification results.
Phenol	IARC: 3 (1999), ACGIH: A4 (2005), IRIS: D (2002).
Sulfuric Acid	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Phenol 108-95-2	-	Group 3	-	-
Sulfuric Acid 7664-93-9	-	Group 1	A2	-

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Potassium Hydroxide	Based on the NITE GHS classification results.
Phenol	Based on the NITE GHS classification results.
Sulfuric Acid	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information

Potassium Hydroxide	Based on the NITE GHS classification results.
Phenol	Based on the NITE GHS classification results.
Sulfuric Acid	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Potassium Hydroxide	Based on the NITE GHS classification results.
Phenol	Based on the NITE GHS classification results.
Sulfuric Acid	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Potassium Hydroxide	Death of pneumonia due to aspiration. (ACGIH (2001)).
Phenol	Based on the NITE GHS classification results.
Sulfuric Acid	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	Based on the NITE GHS classification results.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Other data

Chemical Name	Aquatic toxicity -Acute- source information	Aquatic toxicity -Chronic- source information
Potassium Hydroxide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Phenol	Based on the NITE GHS Classification results.	Based on the NITE GHS Classification results.
Sulfuric Acid	LC50(Lepomis macrochirus):16-28mg/L/96h(SIDS、2003).	Based on the NITE GHS classification results.
Sodium pentacyanonitrosylferrate(III) dihydrate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

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

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
UN number UN1760
Proper shipping name: Corrosive liquid, n.o.s. (Deproteinizing Reagent)
UN classfication 8
Subsidiary hazard class

Packing group	II
Marine pollutant	Not applicable

IMDG

UN number	UN1760
Proper shipping name:	Corrosive liquid, n.o.s. (Deproteinizing Reagent)
UN classfication	8
Subsidiary hazard class	
Packing group	II
Marine pollutant (Sea)	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

IATA

UN number	UN1760
Proper shipping name:	Corrosive liquid, n.o.s. (Deproteinizing Reagent)
UN classfication	8
Subsidiary hazard class	
Packing group	II
Environmentally Hazardous Substance	Not applicable

Section 15: REGULATORY INFORMATION

International Inventories

EINECS/ELINCS	Listed
TSCA	Listed

Japanese regulations

Fire Service Act	Not applicable
Poisonous and Deleterious Substances Control Law	Poisonous Substances 2nd. Grade
Industrial Safety and Health Act	Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18) Group 3 Specified Chemical Substance, (Ordinance on Prevention of Hazards Due to Specified Chemical Substances Art.2 Para.1, Item 6) Notifiable Substances (Law Art.57-2, Enforcement Oder Art.18-2 Attached Table No.9)No.316,337,474
Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc	Priority Assessment Chemical Substances (Law Article 2, Para.5)
Regulations for the carriage and storage of dangerous goods in ship	Corrosive Substances (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
Civil Aeronautics Law	Corrosive Substances (Ordinance Art.194, MITL Nortification for Air Transportation of Explosives etc., Attached Table 1)
Pollutant Release and Transfer Register Law	Class 1
Class 1 - No.	349
Water Pollution Control Act	Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinace Designating Wastewater Standards Art.1) Specified substances(Law Art.2 Para.4, Enforcement Order Art.3-3)
Export Trade Control Order	Not applicable

Section 16: OTHER INFORMATION

Key literature references and	NITE: National Institute of Technology and Evaluation (JAPAN)

sources for data etc.

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 Oraganic 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 acoording 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