




SAFETY DATA SHEET

QuickGene DNA Tissue Kit L (DT-L)

Name of substance	Classification acc. to GHS	Pictograms
Proteinase K EDT-01	Skin Irrit. 1: H317 Resp. Sens. 1: H334	
Lysis Buffer LDT-01	Acute Tox. 4: H302 Skin Irrit. 2: H315 Eye Irrit. 2: H319	
Tissue Lysis Buffer MDT-01	Skin Irrit. 2: H315 Eye Irrit. 2: H319 STOT SE 2: H371 Aquatic Acute 2: H401	
Wash Buffer WDT-01		
Elution Buffer CDT-01		

KURABO INDUSTRIES LTD.

Bio-Medical Department

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Telephone Number	+81-72-820-3079
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4. First-aid measures

Descriptions of first-aid measures

IF INHALED Remove person to fresh air and keep comfortable for breathing.
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair) Wash with plenty of soap and water.
 If skin irritation occurs: Get medical advice/attention.

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 SWALLOWED Rinse mouth. Do not induce vomiting.
 Do not give milk or alcoholic drinks.
 If you are unconscious, never give anything by mouth.
 Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

May cause allergy, asthma, or breathing difficulty if inhaled.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media water jet

Hazardous combustion products Harmful combustion products are not known.

Protection of firefighters Wear adequate personal protective equipment

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Ventilate area after material pick up is complete.
 Wear an air-supplied respirator for a poor/non ventilated spill.
 Refer to the protective measures described in items 7 and 8.

Environmental precautions

Keep away from drains, surface and ground water.
 Stop leak and spill after checking safety.
 If the outflow is remarkable and can not be recovered, it must be reported to the local government.

Methods and materials for containment and cleaning up

Absorb with an inert absorbent (eg, sand, silica gel, acidic binder, universal binder, sawdust).
 Place in an appropriate container, discard it, and leave it closed.

7. Handling and storage

Precautions for safe handling

Preventive measures
 (Exposure Control for handling personnel)
 Avoid breathing dust/fume.

Safety Measures/Incompatibility
 Use only outdoors or in a well-ventilated area.
 Smoking, eating and drinking are prohibited in the work area.
 Wear protective gloves.
 Wear eye protection/face protection.

Conditions for safe storage, including any incompatibilities

Recommendation for storage
 Store in a well-ventilated place. Keep container tightly closed.
 Keep cool. Protect from sunlight.
 Storage temperature upper limit: 28°C

Contact avoidance

Strong bases, strong oxidants, nitric acid, peroxides

8. Exposure controls/personal protection

Control parameters

Ingredient name	CAS No.	Indicator (Exposure form)	Source
Proteinase K	39450-01-6	0.00006 mg/m3	Roche Industrial Hygiene Committee (RIHC)

Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Hand protection

Wear protective gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Eye protection

Wear safety glasses with side-shields or chemical safety goggle.

Skin and body protection

Wear protective clothing.

Safety and Health measures

Take off contaminated clothing and wash it before reuse.

Wash hands thoroughly after handling.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties	
Appearance:	liquid
Color:	colourless, clear
Odor:	odourless
pH	7.5
density	1.126 g/cm3
Solubility	
Solubility in water:	Completely soluble

10. Stability and Reactivity

Chemical stability	Stable under normal storage/handling conditions.
Conditions to avoid	No data
Incompatible materials	Strong base, Strong oxidizing agent, nitric acid, Peroxide

11. Toxicological Information

Information on toxicological effects

No Acute toxicity data available

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Steam can irritate the eyes, the respiratory system and the skin.

Respiratory or skin sensitisation

May cause irritation / dermatitis on the skin.

May cause an allergic skin reaction.

Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity – single exposure
 Classification could not be established because:
 Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity – repeated exposure
 Classification could not be established because:
 Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Aspiration hazard
 Classification could not be established because:
 Data are lacking, inconclusive, or conclusive but not sufficient for classification.

12. Ecological Information

Ecotoxicity	Data are not available.
Residuality / degradability	Data are not available.
Bioaccumulation	Data are not available.
Mobility in soil	It is not considered to adsorb to the soil
Hazard to the ozone layer	Not applicable
Other hazardous effects	Data are not available.

13. Disposal considerations

Waste treatment methods

Residual waste

Do not contaminate ponds, waterways, or grooves with chemicals or used containers.
 We consign to an authorized waste disposal contractor.
 If you obey local regulations, it can be disposed of as wastewater.

Contaminated containers and packaging

Empty the remaining containers
 Dispose of in the same way as containers containing products.
 Empty containers shall be consigned to a licensed waste disposer for recycling or disposal.
 Do not reuse empty containers.

14. Transport Information

Marine transportation is regulated by IMDG Code. Air transportation is regulated by IATA Dangerous Goods Regulations.

IMDG	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.

UN No, UN CLASS not subject to transport regulations

Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

15. Regulatory Information

Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances

Class 1 Specified Chemical Substance:	Not regulated.
Class 2 Specified Chemical Substance:	Not regulated.
Type 1 Monitoring Chemical Substance:	Not regulated.
Type 2 Monitoring Chemical Substance:	Not regulated.
Type 3 Monitoring Chemical Substance:	Not regulated.

Industrial Safety and Health Law

Dangerous Substances Flammable:	Not regulated.
Dangerous Substances Flammable Gases:	Not regulated.
Dangerous Substances Oxidizing:	Not regulated.
Dangerous Substances Explosives:	Not regulated.
Dangerous Substances Ignitable:	Not regulated.
Harmful Substances Carcinogen:	Not regulated.
Class 1 Designated Chemical Substances:	Not regulated.
Class 2 Designated Chemical Substances:	Not regulated.
Class 3 Designated Chemical Substances:	Not regulated.
Class 1 Organic Solvents Preparations:	Not regulated.
Class 2 Organic Solvents Preparations:	Not regulated.
Class 3 Organic Solvents Preparations:	Not regulated.
Notifiable Substance:	Not regulated.
Labeling Requirements:	Not regulated.

Others:	Not regulated.
Poisonous and Deleterious Substances Control Law	
Specified Poisonous Substance – Main Law:	Not regulated.
Specified Poisonous Substance – Cabinet Order:	Not regulated.
Poisonous Substances – Main Law:	Not regulated.
Poisonous Substances – Cabinet Order:	Not regulated.
Deleterious Substances – Main Law:	Not regulated.
Deleterious Substances – Cabinet Order:	Not regulated.
Enforcement Order Article 32-2:	Not regulated.
Enforcement Order Article 32-3:	Not regulated.
Not Considered Poisonous:	Not regulated.
Not Considered Deleterious:	Not regulated.
Cabinet Order, Preparations:	Not regulated.
Fire Service Law	
Class 1 Oxidizing Solids:	Not regulated.
Class 2 Flammable Solids:	Not regulated.
Class 3 Spontaneous combustibility and Water-reactivity Substances:	Not regulated.
Class 4 Flammable Liquids:	Not regulated.
Class 5 Self-Reactive Substances:	Not regulated.
Class 6 Oxidizing Liquids:	Not regulated.
Designated Flammable Substances:	Not regulated.
Storage Reporting Substance:	Not regulated.
Japan PRTR	
Specific Class 1 Designated Substance:	Not regulated.
Class 1 Designated Substance:	Not regulated.
Class 2 Designated Substance:	Not regulated.
Ship Safety Law	Not regulated.
Civil Aeronautics law	Not regulated.
Japan Marine Pollution Prevention Law	
Bulk transport	Hazardous liquid substances (Z class)
Transport of goods	Not applicable to marine pollutants
High Pressure Gas Safety law	Not regulated.
Gun Powder Control Law	Not regulated.

16. Other information

GHS classification and labelling

Skin Irrit. 1: H317 May cause an allergic skin reaction.

Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

Safety Data Sheet

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

Product identifier:

Product name: Lysis Buffer
Product code: LDT-01
SDS NO: LDT01_JPE_1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Neyagawa Techno Center, 14-5 Shimokida-cho, Neyagawa, Osaka, 572-0823 JAPAN
Division: Bio-Medical department
Telephone number: +81-72-820-3079
FAX: +81-72-820-3095

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

Relevant identified uses of the product: Reagents for automated nucleic acid isolation system
Uses advised against: For research use only

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS Acute toxicity Oral: Category 4
Skin corrosion/irritation: Category 2
Serious eye damage/eye irritation: Category 2

(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

Label elements

Signal word: Warning

HAZARD STATEMENT

H302 Harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation

PRECAUTIONARY STATEMENT**Prevention**

P264 Wash contaminated parts thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
P270 Do not eat, drink or smoke when using this product.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P330 Rinse mouth.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Disposal

P501 Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection Mixture

Ingredient name	Content(%)	CAS No.
Guanidine hydrochloride	40-60	50-01-1
polyoxyethylene sorbitan fatty acid ester	10-20	-
hydrochloride salts of aminoalcohol	1-5	-
Water	Balance	7732-18-5

Note : The figures shown above are not the specifications of the product.
Generally chemical substances greater than 1% of the total are listed.

4. First-aid measures

Descriptions of first-aid measures	
IF INHALED	Rescuers should wear proper personal protective equipment suitable for situation. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN (or hair)	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
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 SWALLOWED	Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	Carbon dioxide, dry chemical and protein based foam.
Extinguishing media to avoid	None.
Special fire fighting	Keep personnel removed from and upwind of fire. Water runoff can damage the environment.
Procedures	Dike and collect water used to fight fire Evacuate area and fight fire from a safe distance.
Protection of fire-fighters	Wear adequate personal protective equipment.

6. Accidental release measures

Personnel precautions, protective equipment and emergency measures	Wear adequate personal protective equipment, see Section 8 (Exposure Controls/Personal Protection)
Environmental precautions	Prevent from entering into soil, waterways and ground water.
Clean-up methods and materials and containment measures	Spills should be contained by, and covered with suitable absorbent material and removed for disposal.

7. Handling and storage

Precautions for safe handling	
Handling	<p>Technical measures Avoid contact with skin, eyes and clothing. Wash hands after handling.</p> <p>Local and general ventilation Use only with adequate ventilation.</p> <p>Precautions See Section 8 (Exposure Controls/Personal Protection).</p> <p>Safeguarding advice See Section 10 (Stability and reactivity).</p>
Storage	<p>Suitable storage conditions Protect from sunlight. Keep container tightly closed.</p> <p>Safe packaging materials Use plastic container that have enough toughness.</p>

8. Exposure controls/personal protection

Engineering measures	Evacuate and ventilate spill area. Provide easy access to water supply and eye wash facilities.
Personal protective equipment	<p>Respiratory protection Wear suitable respiratory protection.</p> <p>Hand protection Wear suitable gloves.</p> <p>Eye protection Use eye protection. Use face shield in case of splash risk.</p> <p>Skin and body protection Wear suitable protective clothing.</p>

Hygiene measures

When using, do not eat, drink or smoke. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties**Information on basic physical and chemical properties**

Physical properties	
Appearance:	Liquid
Color:	Colourless to light yellow, Clear
Odor:	Practically odourless
pH:	6 Approx.
Flash point:	Not flammable
Auto-ignition temperature	Not flammable
Solubility	
Solubility in water:	Completely soluble

10. Stability and Reactivity

Chemical stability	Stable under normal storage/handling conditions.
Conditions to avoid	Freezing. Protect against direct sunlight.
Hazardous decomposition products	CO, CO2 Nitrogen oxides (NOx).

11. Toxicological Information

Acute toxicity	Harmful if swallowed.
TestResults	Acute OralLD50Rat:> 500mg/kg
Skin corrosion/irritation	strong
Serious eyedamage/eye irritation	moderately irritant
Carcinogenicity	Substances in group [1;2A;2B] by IARC(International Agencyfor Research onCancer):None

12. Ecological Information

Bioaccumulation	Not established.
Mobilityinsoil	Not established.
Otherhazardous effects	Not established

13. Disposal considerations

When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste. Follow the laws and regulations in your country while disposing of this product or waste.

14. Transport Information

UN No, UN CLASS	Not applicable to UN NO.
Marine transportation is regulated by IMDG Code. Air transportation is regulated by IATA Dangerous Goods Regulations.	
IMDG	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.

15. Regulatory Information**Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances**

Class 1 Specified Chemical Substance:	Not regulated.
Class 2 Specified Chemical Substance:	Not regulated.
Type 1 Monitoring Chemical Substance:	Not regulated.
Type 2 Monitoring Chemical Substance:	Not regulated.
Type 3 Monitoring Chemical Substance:	Not regulated.

Industrial Safety and Health Law

Dangerous Substances Flammable:	Not regulated.
Dangerous Substances Flammable Gases:	Not regulated.
Dangerous Substances Oxidizing:	Not regulated.
Dangerous Substances Explosives:	Not regulated.
Dangerous Substances Ignitable:	Not regulated.
Harmful Substances Carcinogen:	Not regulated.
Class 1 Designated Chemical Substances:	Not regulated.
Class 2 Designated Chemical Substances:	Not regulated.
Class 3 Designated Chemical Substances:	Not regulated.

Class 1 Organic Solvents Preparations:	Not regulated.
Class 2 Organic Solvents Preparations:	Not regulated.
Class 3 Organic Solvents Preparations:	Not regulated.
Notifiable Substance:	Not regulated.
Labeling Requirements:	Not regulated.
Others:	Not regulated.
Poisonous and Deleterious Substances Control Law	
Specified Poisonous Substance – Main Law:	Not regulated.
Specified Poisonous Substance – Cabinet Order:	Not regulated.
Poisonous Substances – Main Law:	Not regulated.
Poisonous Substances – Cabinet Order:	Not regulated.
Deleterious Substances – Main Law:	Not regulated.
Deleterious Substances – Cabinet Order:	Not regulated.
Enforcement Order Article 32-2:	Not regulated.
Enforcement Order Article 32-3:	Not regulated.
Not Considered Poisonous:	Not regulated.
Not Considered Deleterious:	Not regulated.
Cabinet Order, Preparations:	Not regulated.
Fire Service Law	
Class 1 Oxidizing Solids:	Not regulated.
Class 2 Flammable Solids:	Not regulated.
Class 3 Spontaneous combustibility and Water-reactivity Substances:	Not regulated.
Class 4 Flammable Liquids:	Not regulated.
Class 5 Self-Reactive Substances:	Not regulated.
Class 6 Oxidizing Liquids:	Not regulated.
Designated Flammable Substances:	Not regulated.
Storage Reporting Substance:	Not regulated.
Japan PRTR	
Specific Class 1 Designated Substance:	Not regulated.
Class 1 Designated Substance:	Not regulated.
Class 2 Designated Substance:	Not regulated.
Ship Safety Law	Not regulated.
Civil Aeronautics law	Not regulated.
Japan Marine Pollution Prevention Law	Not regulated.
High Pressure Gas Safety law	Not regulated.
Gun Powder Control Law	Not regulated.

16. Other information

GHS classification and labelling

Acute Tox. 4: H302 Harmful if swallowed
 Skin Irrit. 2: H315 Causes skin irritation
 Eye Irrit. 2: H319 Causes serious eye irritation

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN
 Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN
 Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
 JIS Z 7252:2014, JIS Z 7253:2012
 NITE CHRIP (<http://www.safe.nite.go.jp/japan/sougou/view/SystemTop.jp.faces>)

General Disclaimer

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Safety Data Sheet

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

Product identifier:

Product name: Tissue Lysis Buffer
Product code: MDT-01
SDS NO: MDT01_JPE_1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Neyagawa Techno Center, 14-5 Shimokida-cho, Neyagawa, Osaka, 572-0823 JAPAN
Division: Bio-Medical department
Telephone number: +81-72-820-3079
FAX: +81-72-820-3095

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

Relevant identified uses of the product: Reagents for automated nucleic acid isolation system
Uses advised against: For research use only

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS Skin corrosion/irritation: Category 2
Serious eye damage/eye irritation: Category 2A
May cause damage to organs (central nervous system): Category 2
Toxic to aquatic life: Category 2

(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

Label elements



Signal word: Warning

HAZARD STATEMENT

H315 Causes skin irritation.
H319 Causes serious eye irritation
H371 May cause damage to organs (central nervous system).
H401 Toxic to aquatic life

PRECAUTIONARY STATEMENT

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302 + P352 IF ON SKIN: W_a P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection Mixture

Ingredient name	Content(%)	CAS No.
disodium ethylenediamine tetraacetate	1 – 5	139-33-3
sodium lauryl sulfate	1 – 5	151-21-3
Water	Balance	7732-18-5

Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

IF INHALED Remove person to fresh air and keep comfortable for breathing.
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair) Wash with plenty of soap and water.
 If skin irritation occurs: Get medical advice/attention.

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 SWALLOWED Rinse mouth. Do not induce vomiting.
 Do not give milk or alcoholic drinks.
 If you are unconscious, never give anything by mouth.
 Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed
 May cause allergy, asthma, or breathing difficulty if inhaled.

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media Carbon dioxide, dry chemical and protein based foam.

Extinguishing media to avoid None.

Special fire fighting Keep personnel removed from and upwind of fire. Water runoff can damage the environment.

Procedures Dike and collect water used to fight fire Evacuate area and fight fire from a safe distance.

Protection of fire-fighters Wear adequate personal protective equipment.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures
 Ventilate area after material pick up is complete.
 Wear an air-supplied respirator for a poor/non ventilated spill.
 Refer to the protective measures described in items 7 and 8.

Environmental precautions
 Prevent from entering into soil, waterways and ground water.
 Stop leak and spill after checking safety.

Methods and materials for containment and cleaning up
 Absorb with an inert absorbent (eg, sand, silica gel, acidic binder, universal binder, sawdust).
 Place in an appropriate container, discard it, and leave it closed.

7. Handling and storage

Precautions for safe handling

Handling Technical measures Avoid contact with skin, eyes and clothing. Wash hands after handling.
 Local and general ventilation Use only with adequate ventilation.

 Precautions See Section 8 (Exposure Controls/Personal Protection).
 Safehandling advice See Section 10 (Stability and reactivity).

Storage Suitable storage conditions Protect from sunlight. Keep container tightly closed.
 Safe packaging materials Use plastic container that have enough toughness.

8. Exposure controls/personal protection

Engineering measures
 Evacuate and ventilate spill area. Provide easy access to water supply and eye wash facilities.

Personal protective equipment

Respiratory protection Wear suitable respiratory protection.
 Hand protection Wear suitable gloves.
 Eye protection Use eye protection. Use face shield in case of splash risk.
 Skin and body protection Wear suitable protective clothing.

Hygiene measures

When using, do not eat, drink or smoke. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties	
Appearance:	liquid
Color:	colourless, clear
Odor:	odourless
pH	8.4 Approx.
Solubility	
Solubility in water:	Completely soluble

10. Stability and Reactivity

Chemical stability Stable under normal storage/handling conditions.
Conditions to avoid Freezing. Protect against direct sunlight.
Incompatible materials None
Hazardous decomposition products CO, CO2 Nitrogen oxides (NOx).

11. Toxicological Information

Acute toxicity
 TestResults Acute Oral LD50 Rat: > 2000 mg/kg
Skin corrosion/irritation strong
Serious eyedamage/eye irritation weakly irritant
Carcinogenicity Substances in group [1;2A;2B] by IARC (International Agency for Research on Cancer):None

12. Ecological Information

Bioaccumulation Not established.
Mobilityinsoil Not established.
Otherhazardous effects Not established

13. Disposal considerations

When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste. Follow the laws and regulations in your country while disposing of this product or waste.

14. Transport Information

UN No, UN CLASS Not applicable to UN NO.
 Marine transportation is regulated by IMDG Code. Air transportation is regulated by IATA Dangerous Goods Regulations.
IMDG Not regulated as dangerous goods.
IATA Not regulated as dangerous goods.

15. Regulatory Information

Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances

Class 1 Specified Chemical Substance: Not regulated.
 Class 2 Specified Chemical Substance: Not regulated.
 Type 1 Monitoring Chemical Substance: Not regulated.
 Type 2 Monitoring Chemical Substance: Not regulated.
 Type 3 Monitoring Chemical Substance: Not regulated.

Industrial Safety and Health Law

Dangerous Substances Flammable: Not regulated.
 Dangerous Substances Flammable Gases: Not regulated.
 Dangerous Substances Oxidizing: Not regulated.
 Dangerous Substances Explosives: Not regulated.
 Dangerous Substances Ignitable: Not regulated.

Harmful Substances Carcinogen:	Not regulated.
Class 1 Designated Chemical Substances:	Not regulated.
Class 2 Designated Chemical Substances:	Not regulated.
Class 3 Designated Chemical Substances:	Not regulated.
Class 1 Organic Solvents Preparations:	Not regulated.
Class 2 Organic Solvents Preparations:	Not regulated.
Class 3 Organic Solvents Preparations:	Not regulated.
Notifiable Substance:	Not regulated.
Labeling Requirements:	Not regulated.
Others:	Not regulated.
Poisonous and Deleterious Substances Control Law	
Specified Poisonous Substance – Main Law:	Not regulated.
Specified Poisonous Substance – Cabinet Order:	Not regulated.
Poisonous Substances – Main Law:	Not regulated.
Poisonous Substances – Cabinet Order:	Not regulated.
Deleterious Substances – Main Law:	Not regulated.
Deleterious Substances – Cabinet Order:	Not regulated.
Enforcement Order Article 32-2:	Not regulated.
Enforcement Order Article 32-3:	Not regulated.
Not Considered Poisonous:	Not regulated.
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Cabinet Order, Preparations:	Not regulated.
Fire Service Law	
Class 1 Oxidizing Solids:	Not regulated.
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Class 3 Spontaneous combustibility and Water-reactivity Substances:	Not regulated.
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Class 1 Designated Substance:	Not regulated.
Class 2 Designated Substance:	Not regulated.
Ship Safety Law	Not regulated.
Civil Aeronautics law	Not regulated.
Japan Marine Pollution Prevention Law	
Bulk transport	Hazardous liquid substances (Z class)
Transport of goods	Not applicable to marine pollutants
High Pressure Gas Safety law	Not regulated.
Gun Powder Control Law	Not regulated.

16. Other information

GHS classification and labelling

- Skin Irrit. 2: H315 Causes skin irritation.
- Eye Irrit. 2: H319 Causes serious eye irritation
- STOT SE 2: H371 May cause damage to organs (central nervous system).
- Aquatic Acute 2: H401 Toxic to aquatic life

Reference Book

- Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN
- Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN
- Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
- JIS Z 7252:2014, JIS Z 7253:2012
- NITE CHRIP (<http://www.safe.nite.go.jp/japan/sougou/view/SystemTop.jp.faces>)

General Disclaimer

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Safety Data Sheet

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

Product identifier:

Product name: Wash Buffer
Product code: WDT-01
SDS NO: WDT01_JPE_1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Neyagawa Techno Center, 14-5 Shimokida-cho, Neyagawa, Osaka, 572-0823 JAPAN
Division: Bio-Medical department
Telephone number: +81-72-820-3079
FAX: +81-72-820-3095

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

Relevant identified uses of the product: Reagents for automated nucleic acid isolation system
 Uses advised against: For research use only

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture
 Not applicable to GHS classification

Label elements

No hazard pictogram
 No Signal word

3. Composition/information on ingredients

Mixture/Substance selection Mixture

Ingredient name	Content(%)	CAS No.
sodium chloride	0.5 - 1.5	7647-14-5
Water	Balance	7732-18-5

Note : The figures shown above are not the specifications of the product.
 Generally chemical substances greater than 1% of the total are listed.

4. First-aid measures

Descriptions of first-aid measures Rescuers should wear proper personal protective equipment suitable for situation.

IF INHALED Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN(or hair) Remove contaminated clothing. Wash with plenty of soap and water.
 If skin irritation occurs: Get medical advice/attention.

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 SWALLOWED Rinse mouth.
 Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Carbon dioxide, dry chemical and protein based foam.

Extinguishing media to avoid None.

Special fire fighting Keep personnel removed from and upwind of fire. Water runoff can damage the environment.

Procedures Dike and collect water used to fight fire Evacuate area and fight fire from a safe distance.

Protection of fire-fighters Wear adequate personal protective equipment.

6. Accidental release measures

Personnel precautions, protective equipment and emergency measures

Wear adequate personal protective equipment, see Section 8 (Exposure Controls/Personal Protection)

Environmental precautions

Prevent from entering into soil, waterways and ground water.

Clean-up methods and materials and containment measures

Spills should be contained by, and covered with suitable absorbent material and removed for disposal.

7. Handling and storage

Precautions for safe handling

Handling	Technical measures	Avoid contact with skin, eyes and clothing. Wash hands after handling.
	Local and general ventilation	Use only with adequate ventilation.
Storage	Precautions	See Section 8 (Exposure Controls/Personal Protection).
	Safeguarding advice	See Section 10 (Stability and reactivity).
	Suitable storage conditions	Protect from sunlight. Keep container tightly closed.
	Safepackaging materials	Use plastic container that have enough toughness.

8. Exposure controls/personal protection

Engineering measures

Evacuate and ventilate spill area. Provide easy access to water supply and eye wash facilities.

Personal protective equipment

Respiratory protection	Wear suitable respiratory protection.
Hand protection	Wear suitable gloves.
Eye protection	Use eye protection. Use face shield in case of splash risk.
Skin and body protection	Wear suitable protective clothing.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties	
Appearance:	Liquid
Color:	Colourless, Clear
Odor:	Odourless
pH:	7.5
Flash point:	Not flammable
Auto-ignition temperature	Not flammable
Solubility	
Solubility in water:	Completely soluble
Viscosity	Like water

10. Stability and Reactivity

Chemical stability	Stable under normal storage/handling conditions.
Conditions to avoid	Freezing. Protect against direct sunlight.
Hazardous decomposition products	CO, CO ₂ Nitrogen oxides (NO _x).

11. Toxicological Information

Acute toxicity

Test Results Acute Oral LD50 Rat: > 2000 mg/kg

Skin corrosion/irritation

No irritation

Serious eye damage/eye irritation

non irritant

Carcinogenicity

Substances in group [1;2A;2B] by IARC (International Agency for Research on Cancer):None

12. Ecological Information

Bioaccumulation	Not established.
Mobility in soil	Not established.
Other hazardous effects	Not established

13. Disposal considerations

When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste. Follow the laws and regulations in your country while disposing of this product or waste.

14. Transport Information

UN No, UN CLASS	Not applicable to UN NO.
Marine transportation is regulated by IMDG Code. Air transportation is regulated by IATA Dangerous Goods Regulations.	
IMDG	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.

15. Regulatory Information**Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances**

Class 1 Specified Chemical Substance:	Not regulated.
Class 2 Specified Chemical Substance:	Not regulated.
Type 1 Monitoring Chemical Substance:	Not regulated.
Type 2 Monitoring Chemical Substance:	Not regulated.
Type 3 Monitoring Chemical Substance:	Not regulated.

Industrial Safety and Health Law

Dangerous Substances Flammable:	Not regulated.
Dangerous Substances Flammable Gases:	Not regulated.
Dangerous Substances Oxidizing:	Not regulated.
Dangerous Substances Explosives:	Not regulated.
Dangerous Substances Ignitable:	Not regulated.
Harmful Substances Carcinogen:	Not regulated.
Class 1 Designated Chemical Substances:	Not regulated.
Class 2 Designated Chemical Substances:	Not regulated.
Class 3 Designated Chemical Substances:	Not regulated.
Class 1 Organic Solvents Preparations:	Not regulated.
Class 2 Organic Solvents Preparations:	Not regulated.
Class 3 Organic Solvents Preparations:	Not regulated.
Notifiable Substance:	Not regulated.
Labeling Requirements:	Not regulated.
Others:	Not regulated.

Poisonous and Deleterious Substances Control Law

Specified Poisonous Substance – Main Law:	Not regulated.
Specified Poisonous Substance – Cabinet Order:	Not regulated.
Poisonous Substances – Main Law:	Not regulated.
Poisonous Substances – Cabinet Order:	Not regulated.
Deleterious Substances – Main Law:	Not regulated.
Deleterious Substances – Cabinet Order:	Not regulated.
Enforcement Order Article 32-2:	Not regulated.
Enforcement Order Article 32-3:	Not regulated.
Not Considered Poisonous:	Not regulated.
Not Considered Deleterious:	Not regulated.
Cabinet Order, Preparations:	Not regulated.

Fire Service Law

Class 1 Oxidizing Solids:	Not regulated.
Class 2 Flammable Solids:	Not regulated.
Class 3 Spontaneous combustibility and Water-reactivity Substances:	Not regulated.
Class 4 Flammable Liquids:	Not regulated.
Class 5 Self-Reactive Substances:	Not regulated.
Class 6 Oxidizing Liquids:	Not regulated.
Designated Flammable Substances:	Not regulated.
Storage Reporting Substance:	Not regulated.

Japan PRTR

Specific Class 1 Designated Substance:	Not regulated.
Class 1 Designated Substance:	Not regulated.
Class 2 Designated Substance:	Not regulated.

Ship Safety Law	Not regulated.
Civil Aeronautics law	Not regulated.
Japan Marine Pollution Prevention Law	Not regulated.
High Pressure Gas Safety law	Not regulated.
Gun Powder Control Law	Not regulated.

16. Other information

Reference Book

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Safety Data Sheet

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

Product identifier:

Product name: Elution Buffer
Product code: CDT-01
SDS NO: CDT01_JPE_1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Neyagawa Techno Center, 14-5 Shimokida-cho, Neyagawa, Osaka, 572-0823 JAPAN
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Relevant identified uses of the product: Reagents for automated nucleic acid isolation system
 Uses advised against: For research use only

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture
 Not applicable to GHS classification

Label elements

No hazard pictogram
 No Signal word

3. Composition/information on ingredients

Mixture/Substance selection Mixture

Ingredient name	Content(%)	CAS No.
Water	80-100	7732-18-5

Note : The figures shown above are not the specifications of the product.
 Generally chemical substances greater than 1% of the total are listed.

4. First-aid measures

Descriptions of first-aid measures Rescuers should wear proper personal protective equipment suitable for situation.

IF INHALED Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN(or hair) Remove contaminated clothing. Wash with plenty of soap and water.
 If skin irritation occurs: Get medical advice/attention.

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 SWALLOWED Rinse mouth.
 Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Carbon dioxide, dry chemical and protein based foam.

Extinguishing media to avoid None.

Special fire fighting Keep personnel removed from and upwind of fire. Water runoff can damage the environment.

Procedures Dike and collect water used to fight fire Evacuate area and fight fire from a safe distance.

Protection of fire-fighters Wear adequate personal protective equipment.

6. Accidental release measures

Personnel precautions, protective equipment and emergency measures

Wear adequate personal protective equipment, see Section 8 (Exposure Controls/Personal Protection)

Environmental precautions

Prevent from entering into soil, waterways and ground water.

Clean-up methods and materials and containment measures

Spills should be contained by, and covered with suitable absorbent material and removed for disposal.

7. Handling and storage

Precautions for safe handling

Handling	Technical measures	Avoid contact with skin, eyes and clothing. Wash hands after handling.
	Local and general ventilation	Use only with adequate ventilation.
Storage	Precautions	See Section 8 (Exposure Controls/Personal Protection).
	Safe handling advice	See Section 10 (Stability and reactivity).
	Suitable storage conditions	Protect from sunlight. Keep container tightly closed.
	Safe packaging materials	Use plastic container that have enough toughness.

8. Exposure controls/personal protection

Engineering measures

Evacuate and ventilate spill area. Provide easy access to water supply and eye wash facilities.

Personal protective equipment

Respiratory protection	Wear suitable respiratory protection.
Hand protection	Wear suitable gloves.
Eye protection	Use eye protection. Use face shield in case of splash risk.
Skin and body protection	Wear suitable protective clothing.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties	
Appearance:	Liquid
Color:	Colourless, Clear
Odor:	Odourless
pH:	9
Flash point:	Not flammable
Auto-ignition temperature	Not flammable
Solubility	
Solubility in water:	Completely soluble
Viscosity	Like water

10. Stability and Reactivity

Chemical stability	Stable under normal storage/handling conditions.
Conditions to avoid	Freezing. Protect against direct sunlight.
Hazardous decomposition products	CO, CO2 Nitrogen oxides (NOx).

11. Toxicological Information

Acute toxicity

Test Results Acute Oral LD50 Rat: > 2000 mg/kg

Skin corrosion/irritation

No irritation

Serious eye damage/eye irritation

non irritant

Carcinogenicity

Substances in group [1;2A;2B] by IARC (International Agency for Research on Cancer):None

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Bioaccumulation	Not established.
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