




SAFETY DATA SHEET

QuickGene-AutoS Plasmid Kit (AS-PL)

Name of substance	Classification acc. to GHS	Pictograms
RNase EDP-02		
Lysis Buffer LDP-02		
Resuspension Buffer RDP-02		
Alkaline Solution ADP-02	Met. Corr. 1: H290 Eye Irrit. 2A: H319 STOT SE 2: H371 Aquatic Acute 3: H402	
Neutralization Buffer NDP-02	Met. Corr. 1: H290 Eye Irrit. 2: H319	
Wash Buffer WDP-S1	Flam. Liq. 2: H225 Eye Irrit. 2A: H319 Carc. 1A: H350 Repr. 1A: H360 STOT SE 3: H335, H336 STOT RE 1: H372 STOT RE 2: H373	
Elution Buffer CDP-S1		

KURABO INDUSTRIES LTD.

Bio-Medical Department

Address	Advanced Technology Center 2F 14-30 Shimokida-Cho, Neyagawa, Osaka 572-0823, Japan
Telephone Number	+81-72-820-3079
FAX Number	+81-72-820-3095

Safety Data Sheet

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

Product identifier:

Product name: RNase
Product code: EDP-02
SDS NO: EDP02_JPE_1.1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Advanced Technology Center, 14-30 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)	Not classified
	Skin corrosion/irritation	Not classified
	Serious eye damage/eye irritation	Not classified

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
tris(hydroxymethyl)aminomethane hydrochloride salt	1-5	1185-53-1
ribonuclease	0.5-1.5	9001-99-4

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)	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
IF IN EYES	Rinse with water. Get medical attention if irritation develops and persists.
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.
	Precautions	See Section 8 (Exposure Controls/Personal Protection).
Storage	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:	7.5 Approx. ; 25° C
Flash point:	Not flammable
Auto-ignition temperature	Not flammable
Solubility	
Solubility in water:	Completely soluble
Viscosity	No data available

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

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

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

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: LDP-02
SDS NO: LDP02_JPE_1.1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Advanced Technology Center, 14-30 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.
polyoxyethylene sorbitan fatty acid ester	15 - 30	-
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 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) Rinse skin with water/shower. Get medical attention if irritation develops and persists.
IF IN EYES Rinse with water. Get medical attention if irritation develops and persists.
IF SWALLOWED Rinse mouth. Get medical attention if any discomfort continues.

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media Carbon dioxide, dry chemical and protein based foam.
Extinguishing media to avoid None.
Specific hazards arising from the chemical product
 Keep personnel removed from and upwind of fire. Water runoff can damage the environment. 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.
	Precautions	See Section 8 (Exposure Controls/Personal Protection).
	Safe handling 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.

Exposure limits No information available.

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:	Yellow, Clear
Odor:	Practically odourless
pH:	6 Approx. ; 25° C
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

TestResults Acute Oral LD50 Rat: > 2000 mg/kg

Skin corrosion/irritation No irritation

Serious eyedamage/eye irritation non irritant

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

12. Ecological Information

Bioaccumulation No information available

Mobility in soil No information available

Hazard to the ozone layer Mobility No information available

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

International Inventories

TSCA Listed

Japanese regulations

Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances	Not regulated.
Industrial Safety and Health Act	Not regulated.
Poisonous and Deleterious Substances Control Law	Not regulated.
Fire Service Law	Not regulated.
Regulations for the carriage and storage of dangerous goods in ship	Not regulated.
Japan PRTR	Not regulated.
Civil Aeronautics law	Not regulated.
Japan Marine Pollution Prevention Law	Not regulated.

16. Other information

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>)

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Safety Data Sheet

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

Product identifier:

Product name: Resuspention Buffer
Product code: RDP-02
SDS NO: RDP02_JPE_1.1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Advanced Technology Center, 14-30 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.
tris(hydroxymethyl)aminomethane hydrochloride salt	0.5-1.5	1185-53-1
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) Rinse skin with water/shower. Get medical attention if irritation develops and persists.
IF IN EYES Rinse with water. Get medical attention if irritation develops and persists.
IF SWALLOWED Rinse mouth. Get medical attention if any discomfort continues.

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).
	Safehandling 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:	8.2 Approx. ; 25° C
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

TestResults Acute Oral LD50 Rat: > 2000 mg/kg

Skin corrosion/irritation

No irritation

Serious eyedamage/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.
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 GLASS	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

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

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: Alkaline Solution
Product code: ADP-02
SDS NO: ADP02_JPE_1.1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Advanced Technology Center, 14-30 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

PHYSICAL HAZARDS May be corrosive to metals. :Category 1
HEALTH HAZARDS Acute toxicity (Oral) :Not classified
Skin corrosion/irritation :Not classified
Serious eye damage / eyeirritation: Category 2A
Specific target organ systemictoxicity – single exposure:
Category 2(Central nervous system)
Hazardous to the aquatec environment, acute hazzard. :Category 3

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

Label elements



Signal word: Warning

HAZARD STATEMENT

H290 May be corrosive to metals.
H319 Causes serious eye irritation
H371 May cause damage to organs
H402 Harmful to aquatic life.

PRECAUTIONARY STATEMENT

Prevention

P234 Keep only in original container.
P260 Do not breathe dust/fumes/gas/mist/vapours/spray.
P264 Wash contaminated parts 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

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/ doctor.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P390 Absorb spillage to prevent material damage.

Storage

P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

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.
sodium hydroxide	0.5-0.9	1310-73-2
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 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) Rinse skin with water/shower. Get medical attention if irritation develops and persists.

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 thoroughly. Drink 1 or 2 glasses of water. Get medical attention immediately. Do NOT induce vomiting.

5. Fire-fighting measures

Extinguishing media

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

Extinguishing media to avoid None.

Specific hazards arising from the chemical product Keep personnel removed from and upwind of fire. Water runoff can damage the environment. 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.
Precautions	See Section 8 (Exposure Controls/Personal Protection).
Safe handling 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.

Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
sodium hydroxide 1310-73-2	Ceiling 2 mg/m ³	N/A	TWA 2 mg/m ³

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

Avoid contact with eyes. 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:	13.2 Approx. ; 25° C
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 (NO_x).
Other Information Corrosive to metals

11. Toxicological Information

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

12. Ecological Information

Bioaccumulation No information available
Mobility in soil No information available
Hazard to the ozone layer Mobility No information available

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**International regulation**

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

UN code 1824
Class 8
Proper Shipping Name Sodium hydroxide, solution
Packing group III
Marine pollutant applicable
MARPOL 73/78 Annex II and liquid substances to be bulk loaded by IBC code Not applicable

15. Regulatory Information

International Inventories

TSCA Listed

Japanese regulations

Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances	Not regulated.
Industrial Safety and Health Act	Not regulated.
Poisonous and Deleterious Substances Control Law	Not regulated.
Fire Service Law	Not regulated.
Regulations for the carriage and storage of dangerous goods in ship	Corrosive substance (class 8)
Japan PRTR	Sodium dodecylsulfate (PRTR1:275)
Civil Aeronautics law	Corrosive substance (class 8)
Water Pollution Prevention Act	Sodium hydroxide (Designated Substances)

16. Other information

GHS classification and labelling

Met. Corr. 1: H290
 Eye Irrit. 2A: H319
 STOT SE 2: H371
 Aquatic Acute 3: H402

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: Neutralization Buffer
Product code: NDP-02
SDS NO: NDP02_JPE_1.1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Advanced Technology Center, 14-30 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

PHYSICAL HAZARDS	May be corrosive to metals :Category 1
HEALTH HAZARDS	Acute toxicity (Oral) :Not classified Skin corrosion/irritation :Not classified Eye damage/irritation :Category2

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

Label elements

Signal word: Warning

HAZARD STATEMENT

H290 May be corrosive to metals.
H319 Causes serious eye irritation

PRECAUTIONARY STATEMENT**Prevention**

P234 Keep only in original container.
P264 Wash contaminated parts thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

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.
P390 Absorb spillage to prevent material damage.

Storage

P406 Store in corrosive resistant container with a resistant inner liner.

3. Composition/information on ingredients

Mixture/Substance selection Mixture

Ingredient name	Content(%)	CAS No.
potassium acetate	20-40	127-08-2
acetic acid	10-20	64-19-7
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) Rinse skin with water/shower. Get medical attention if irritation develops and persists.
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. Get medical attention if any discomfort continues.

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media Carbon dioxide, dry chemical and protein based foam.
Extinguishing media to avoid None.
Specific hazards arising from the chemical product
 Keep personnel removed from and upwind of fire. Water runoff can damage the environment. 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.
 Precautions See Section 8 (Exposure Controls/Personal Protection).
 Safe handling 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.

Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
acetic acid 64-19-7	TWA 10 ppm, 25 mg/m ³	N/A	STEL 15 ppm TWA 10 ppm

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

Avoid contact with eyes. 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:	5.5 Approx. ; 25° C
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).
Other Information	Corrosive to metals

11. Toxicological Information

Acute toxicity	
TestResults	Acute Oral LD50 Rat: > 2000 mg/kg
Skin corrosion/irritation	No irritation
Serious eyedamage/eye irritation	irritant
Carcinogenicity	Substances in group [1:2A;2B] by IARC (International Agency for Research on Cancer):None

12. Ecological Information

Bioaccumulation	No information available
Mobility in soil	No information available
Hazard to the ozone layer Mobility	No information available

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

International regulation	
Marine transportation	Marine transportation is regulated by IMDG Code.
Air transportation	Air transportation is regulated by IATA Dangerous Goods Regulations.
UN code	2790
Class	8
Proper Shipping Name	Acetic acid solution (more than 10% but less than 50% acid, by weight)
Packing group	III
Marine pollutant	Not applicable
MARPOL 73/78 Annex II and liquid substances to be bulk loaded by IBC code	Not applicable

15. Regulatory Information

International Inventories	
TSCA	Listed
Japanese regulations	
Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances	Not regulated.
Industrial Safety and Health Act	acetic acid (Notifiable Substance No.176)

Poisonous and Deleterious Substances Control Law	Not regulated.
Fire Service Law	Not regulated.
Regulations for the carriage and storage of dangerous goods in ship	Not regulated.
Japan PRTR	Not regulated.

16. Other information

GHS classification and labelling

Met. Corr. 1: H290

Eye Irrit. 2: H319

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)

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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: WDP-S1
SDS NO: WDPS1_JPE_1.1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Advanced Technology Center, 14-30 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

PHYSICAL HAZARDS	Flammable liquids: Category 2
HEALTH HAZARDS	Serious eye damage / eyeirritation: Category 2A Carcinogenicity: Category 1A Reproductive toxicity: Category 1A Specific target organ systemictoxicity – single exposure: Category 3(respiratory tract irritation) Category 3(Narcotic effect) Specific target organ systemictoxicity – Repeated exposure Category 1(liver) Category 2(Central nervous system)

Label elements


Signal word: Danger

HAZARD STATEMENT

H225 Highly flammable liquid and vapour
 H319 Causes serious eye irritation
 H335 May cause respiratory irritation
 H336 May cause drowsiness or dizziness
 H350 May cause cancer
 H360 May damage fertility or the unborn child
 H372 Causes damage to organs through prolonged or repeated exposure
 H373 May cause damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENT
Prevention

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P260 Do not breathe dust/fumes/gas/mist/vapours/spray.
 P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.
 P264 Wash contaminated parts thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 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 + P313 If exposed: Call a POISON CENTER or doctor/physician.
 P312 Call a POISON CENTER or doctor if you feel unwell.
 P314 Get medical advice/attention if you feel unwell.
 P337 + P313 If eye irritation persists: Get medical advice/attention.
 P370 + P378 In case of fire: Use appropriate media to extinguish.

Storage

P405 Store locked up.
 P403 + P233 Store in a well ventilated place. Keep container tightly closed.
 P235 Keep cool.

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.
ethanol	75 – 85	64-17-5
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 alcohol-resistant foam, water spray.
Extinguishing media to avoid None.
Specific hazards arising from the chemical product Flammable.
Protection of fire-fighters Wear adequate personal protective equipment. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

6. Accidental release measures

Personnel precautions, protective equipment and emergency measures
 For indoor, provide adequate ventilation process until the end of working.
 Wear adequate personal protective equipment, see Section 8 (Exposure Controls/Personal Protection)
Environmental precautions
 To be careful not discharged to the environment without being properly handled waste water contaminated.
 See Section 12 for additional ecological information.
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.
	Precautions	See Section 8 (Exposure Controls/Personal Protection).
Storage	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.

Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Ethanol 64-17-5	N/A	N/A	STEL: 1000 ppm

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:	Alcohol odor
pH:	7.6
Flash point:	no data
Auto-ignition temperature	no data
Solubility	
Solubility in water:	Completely soluble

10. Stability and Reactivity

Chemical stability	Stable under normal storage/handling conditions.
Conditions to avoid	Freezing. Extremes of temperature and direct sunlight, Heat, flames and sparks.
Hazardous decomposition products	CO, CO2 Nitrogen oxides (NOx).

11. Toxicological Information**Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol	6200mg/kg(Rat)	N/A	20000ppm/10H(Rat)

Chemical Name	Acute toxicity –oral– source information	Acute toxicity –dermal– source information	Acute toxicity –inhalation gassource information
Ethanol	LD50(Rat) : 6,200 mg/kg, 11,500 mg/kg, 17,800 mg/kg, 13,700 mg/kg(PATY(6th, 2012)), 15,010 mg/kg, 7,000–11,000	LDLo(Rabbit) = 20,000 mg/kg(SIDS(2005))	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity –inhalation vapor– source information	Acute toxicity –inhalation dustsource information	Acute toxicity –inhalation mistsource information
Ethanol	LC50(Rat) = 63,000 ppmV (DFGOT vol.12 (1999)), 66,280 ppmV(124.7 mg/L) (SIDS	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Skin corrosion/irritation

Chemical Name	Skin corrosion irritation source information
Ethanol	Based on the NITE GHS classification results.

Serious eyedamage/eye irritation

Chemical Name	Serious eye damage source information
Ethanol	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory, Skin sensitization source information
Ethanol	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	Mutagenic source information
Ethanol	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Ethanol	A3 (ACGIH (7th, 2012))

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Ethanol 64-17-5	Known	Group 1	A3	-

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Ethanol	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
Ethanol	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Ethanol	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Ethanol	Based on the NITE GHS classification results.

12. Ecological Information**Bioaccumulation**

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Ethanol	EC50: Chlorella alga 1000 mg/L 96 h	LC50: Fathead minnow >100mg/L 96h LC50: Oncorhynchus mykiss =11200ppm 96h	EC50: Daphnia magna 5463 mg/L 48 h

Persistence and degradability

Degree of decomposition: 89 % by BOD

Bioaccumulative potential

No information available

Mobility in soil

No information available

Hazard to the ozone layer Mobility

No information available

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**International regulation**

Marine transportation	Marine transportation is regulated by IMDG Code.
Air transportation	Air transportation is regulated by IATA Dangerous Goods Regulations.
UN code	1170
Class	3
Proper Shipping Name	Ethanol solution
Packing group	II
Marine pollutant	Not applicable
MARPOL 73/78 Annex II and liquid substances to be bulk loaded by IBC code	Not applicable

15. Regulatory Information

International Inventories

EINECS/ELINCS	Listed
TSCA	Listed

Japanese regulations

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

Regulated. (2)-202

Industrial Safety and Health Act

Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.61
Dangerous Substances – Flammable Substance (Enforcement Order Attached Table 1 Item4)
Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1,
Enforcement Order Art.18)

Poisonous and Deleterious Substances Control Law

Not regulated.

Fire Service Law

Class 4 Flammable Liquids: Regulated. alcohols (water soluble)

Regulations for the carriage and storage of dangerous goods in ship

Flammable Liquids (Ordinance Art.3, Ministry of Transportation Ordinance Regarding
Transport by Ship and Storage, Attached Table 1)

Japan PRTR

Not regulated.

Civil Aeronautics law

Flammable Liquids (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)

Japan Marine Pollution Prevention Law

Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Z

16. Other information

GHS classification and labelling

Flam. Liq. 2: H225
Eye Irrit. 2A: H319
Carc. 1A: H350
Repr. 1A: H360
STOT SE 3: H335, H336
STOT RE 1: H372
STOT RE 2: H373

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>)

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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: CDP-S1
SDS NO: CDPS1_JPE_1.1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KURABO INDUSTRIES LTD.
Address: Advanced Technology Center, 14-30 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.
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.
	Precautions	See Section 8 (Exposure Controls/Personal Protection).
Storage	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:	8.5
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, 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

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

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

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.