



SAFETY DATA SHEET

QuickGene Plasmid kit SII

MSDS_RDP01_01EU

MSDS_EDP01_01EU

MSDS_ADP01_01EU

MSDS_NDP01_01EU

MSDS_LDP01_01EU

MSDS_WDP01_01EU

MSDS_CDP01_01EU

KURABO INDUSTRIES LTD.

Bio-Medical Department

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Telephone Number	+81-72-820-3079
FAX Number	+81-72-820-3095



SAFETY DATA SHEET

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

Use : Nucleic acid Isolation Kit

Product name Resuspension Buffer RDP-01

Product usage QuickGene Plasmid kit: Resuspension Buffer

Manufacturer / Supplier :

KURABO INDUSTRIES LTD.

Bio-Medical Department

Neyagawa Techno Center 3F 14-5 Shimokida-Cho, Neyagawa, Osaka 572-0823, Japan

Telephone Number +81-72-820-3079

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Information department:

Bio-Medical Department

Telephone Number +81-72-820-3079

Email: bio@ad.kurabo.co.jp

Emergency information:

Telephone Number +81-72-820-3079 9:00AM - 6:00PM

Reference file name MSDS_RDP01_01EU

2. Hazards identification

Information pertaining to particular dangers for human and environment

No hazardous product as specified in Directive 67/548/EEC and 1999/45/EC.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Health hazards	Acute toxicity (Oral)	Not classified
	Skin corrosion/irritation	Not classified
	Serious eye damage/eye irritation	Not classified

3. Composition/information on ingredients

Chemical characterization

Substance or Mixture Mixture

Description Mixture of substances listed below with nonhazardous additions.

Components:

	Components	Concentration (%)
CAS: 7732-18-5	water	80 – 100
EINECS: 231-791-2		
CAS: 1185-53-1	tris(hydroxymethyl)aminomethane hydrochloride salt	0.5 - 1.5
EINECS: 214-684-5		
Chemical formula	H ₂ O (7732-18-5), C ₄ H ₁₂ ClNO ₃ (1185-53-1)	

(*) Generally chemical substances greater than 1% of the total are listed.

4. First aid measures

After inhalation: Supply fresh air and to be sure call for a doctor.

After skin contact: Remove contaminated clothing. Wash off with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.

After eye contact: Rinse opened eye for several minutes under running water. Get medical attention if irritation develops and persists.

After swallowing: Call for a doctor immediately.

5. Fire-fighting measures

Suitable extinguish agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment: Do not inhale explosion gases or combustion gases.

6. Accidental release measures

Person-related safety precautions: Ensure adequate ventilation
Wear adequate personal protective equipment, see Section 8 (Exposure Controls/Personal Protection)

Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7. Handling and storage

Handling

Information for safe handling: Keep receptacles tightly sealed. Avoid contact with skin, eyes and clothing.
Wash hands after handling.

Information about fire - and explosion protection: No special measures required.

Storage:

Requirements to be met by storerooms and receptacles: No special requirement

Further information about storage conditions: Keep receptacle tightly sealed.

8. Exposure controls/personal protection

Additional information about design of technical facilities:

Personal protective equipment:

General protective and hygienic measures: Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Protection of hands: Protective gloves.

Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles.

9. Physical and chemical properties

General Information

Form: Aqueous solution

Colour: Transparent colourless

Odour: Odourless

Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: No data available.

Flash point: Not flammable

Self-igniting: Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Flammability limit - lower (%) No data available.

Flammability limit - upper (%) No data available.

Vapor pressure at 20°C No data available.

Density No data available.

Solubility in / Miscibility with water: Completely soluble

pH-value:
(n-octanol/water)

pH 8.2 Approx. ; 25°C

10. Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Dangerous reaction None.
Dangerous decomposition products: CO,CO2 Nitrogen oxides (NOx).

11. Toxicological information

Acute toxicity: No toxicity
Primary irritant effect: Acute Oral LD50 Rat: > 2000 mg/kg
on the skin: No irritation
on the eye: No irritation
Sensitization: No sensitizing effects known
Additional toxicological information: No further data

12. Ecological information

General notes: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. Disposal considerations

Product:
Recommendation Must not be disposed together with household garbage.
Do not allow product to reach sewage system.

14. Transport information

Land transport ADR/RID (cross-border)
ADR/RID class:
Maritime transport IMO:
IMOG Class:
Air transport ICAO-TI and IATA-DGR
ICAO/IATA Class: -
Transport /Additional information:
Not dangerous according to the above specifications

15. Regulatory information

Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
Code letter and hazard designation of product:
Not regulated.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.



SAFETY DATA SHEET

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

Use : Nucleic acid Isolation Kit

Product name RNase EDP-01

Product usage QuickGene Plasmid kit: RNase

Manufacturer / Supplier

KURABO INDUSTRIES LTD.

Bio-Medical Department

Neyagawa Techno Center 3F 14-5 Shimokida-Cho, Neyagawa, Osaka 572-0823, Japan

Telephone Number +81-72-820-3079

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Information department:

Bio-Medical Department

Telephone Number +81-72-820-3079

Email: bio@ad.kurabo.co.jp

Emergency information:

Telephone Number +81-72-820-3079 9:00AM - 6:00PM

Reference file name MSDS_EDP01_01EU

2. Hazards identification

Information pertaining to particular dangers for man and environment

No hazardous product as specified in Directive 67/548/EEC and 1999/45/EC.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3. Composition/information on ingredients

Chemical characterization

Substance or Mixture

Mixture

Description: Mixture of substances listed below with nonhazardous additions.

Components:

	Components	Concentration (%)
CAS: 7732-18-5	water	80 - 100
EINECS:231-791-2		
CAS: 1185-53-1	tris(hydroxymethyl)aminomethane hydrochloride salt	1 - 5
EINECS:214-684-5		
CAS:9001-99-4	ribonuclease	0.5 - 1.5
EINECS:232-646-6		
Chemical formula	H ₂ O (7732-18-5), C ₄ H ₁₂ ClNO ₃ (1185-53-1)	

(*) Generally chemical substances greater than 1% of the total are listed.

4. First aid measures

General information

Never make an unconscious person vomit or drink fluids.

After inhalation:

Supply fresh air and to be sure call for a doctor.

After skin contact

Immediately wash with soap and water and rinse thoroughly.

After eye contact

Rinse open eye for several minutes under running water. Then consult a doctor.

After swallowing

Call for a doctor immediately.

5. Fire-fighting measures

Suitable extinguish agents:	CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents	Water with full jet.
Extinguishing media	Dry chemical, foam, carbon dioxide, water fog.
Additional information	Cool endangered containers with water spray. Collect contaminated fire fighting water separately. It must not enter the sewage system.

6. Accidental release measures

Person-related safety precautions:	Refer to the protective measures stated in Sections 7 and 8. Keep unprotected personnel away. Wear adequate personal protective equipment, see Section 8 (Exposure Controls/Personal Protection)
Measures for environmental protection:	Do not allow product to reach sewage system or any water course. Inform respective authorities if seepage into water course or sewage system occurs.
Measures for cleaning/collecting:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to section 13.

7. Handling and storage

Handling

Information for safe handling:	Store in cool, dry place in tightly sealed containers. Keep away from heat and direct sunlight. Ensure good ventilation and extraction at the workplace.
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Storage:	Store in accordance with current national regulations.
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Requirements to be met by storerooms and receptacles:	Store between 5 – 30°C.
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Further information about storage conditions:	Keep receptacle tightly sealed.
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8. Exposure controls/personal protection

Additional information about design of technical facilities:

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates or solvent vapour below the occupational exposure limit stated, then suitable respiratory protection must be worn as a temporary measure and is specified below.

Components with limit values that require monitoring at the workplace:

No components with limit values.

Additional information:	The instructions and information provided by the manufacturer of the personal protective equipment on use, storage, maintenance and replacement must always be followed.
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General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
Keep away from foodstuffs, beverages and feed.

Breathing equipment:	Not necessary if room is well-ventilated.
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Protection of hands:	Protective gloves.
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Material of gloves	The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
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Eye protection:	Safety glasses. Use face shield in case of splash risk.
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Body protection:	Protective work clothing; disposable overalls are preferable.
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Engineering measures	Evacuate and ventilate spill area. Provide easy access to water supply and eye wash facilities.
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Personal protective equipment	
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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

General Information

Form:	Aqueous solution
Colour:	Transparent colourless
Odour:	Odourless

Change in condition

Melting point/Melting range:	No data available.
Boiling point/Boiling range:	No data available.
Flash point:	No data available.
Self-igniting:	Product is not self-igniting.
Density	Not determined
Solubility in / Miscibility with water:	Completely soluble
pH	7.5 Approx. ; 25°C

10. Stability and reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
Dangerous reaction	None.
Stability	Stable at normal conditions.
Hazardous decomposition products	CO, CO2 Nitrogen oxides (NOx).

11. Toxicological information

Acute toxicity:	No toxicity
LD/LC50 values that are relevant for classification:	Acute Oral LD50 Rat: > 2000 mg/kg
Additional toxicological information:	
Skin corrosion/irritation	No irritation
Serious eye damage/eye irritation	No irritation

12. Ecological information

General notes:	There are no data on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment. Do not allow product to reach ground water, water course or sewage system.
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13. Disposal considerations

Product:	
Recommendation	Must not be disposed together with household garbage. Do not allow product to reach sewage system.

14. Transport information

Land transport ADR/RID (cross-border)	
ADR/RID class:	-
Maritime transport IMO:	
IMO Class:	-

Marine pollutant: No

Air transport ICAO-TI and IATA-DGR

ICAO/IATA Class: -

Transport /Additional information:

Not dangerous according to the above specifications.

15. Regulatory information

Markings according to EU guidelines:

The product has been classified and marked in accordance with EU Directives on Hazardous Materials

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.



SAFETY DATA SHEET

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

Use : Nucleic acid Isolation Kit

Product name Alkaline Solution ADP-01

Product usage QuickGene Plasmid kit: Alkaline Solution

Manufacturer / Supplier

KURABO INDUSTRIES LTD.

Bio-Medical Department

Neyagawa Techno Center 3F 14-5 Shimokida-Cho, Neyagawa, Osaka 572-0823, Japan

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Email: bio@ad.kurabo.co.jp

Emergency information:

Telephone Number +81-72-820-3079 9:00AM - 6:00PM

Reference file name MSDS_ADP01_01EU

2. Hazards identification

Information pertaining to particular dangers for man and environment

Xi Irritant

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Classification(REGULATION(EC) No 1272/2008

May be corrosive to metals, Category 1, H290

Eye irritation, Category 2, H319

Classification (67/548/EEC or 1999/45/EC)

R 36/38 Irritating to eyes and skin.

Labelling (REGULATION(EC) No 1272/2008)

Hazard pictograms



Signal word

Warning

Hazard statement

H290

May be corrosive to metals. (Category 1)

H319

Causes serious eye irritation. (Category 2)

Precautionary statements

Prevention

P234

Keep only in original container.

P264

Wash thoroughly after handling.

P280

Wear eye/face protection. Wear protective gloves.

Response

P390

Absorb spillage to prevent material damage.

P 305 + 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.

Storage

P406

Store in corrosive resistant container with a resistant inner liner.

Labelling (67/548/EEC or 1999/45/EC)

Symbol(s)

Xi



R-phrases(s)

22-36/38

3. Composition/information on ingredients**Chemical characterization**

Substance or Mixture

Mixture

Description Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

	Components	Concentration (%)
CAS: 7732-18-5	water	80 – 100
EINECS: 231-791-2		
CAS:1310-73-2	sodium hydroxide	0.5 - 1.5
EINECS: 215-185-5	C; R 35	
CAS:151-21-3	sodium lauryl sulfate	1.0
EINECS: 205-788-1	Xn , Xi ; R 22-36/38	
Chemical formula	H2O (7732-18-5), NaOH (1310-73-2), C12H26O4S.Na (151-21-3)	

(*) Generally chemical substances greater than 1% of the total are listed.

4. First aid measures**After inhalation:**

Supply fresh air and to be sure call for a doctor.

After skin contact

Remove contaminated clothing. Wash off with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.

After eye contact

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.

After swallowing

Call for a doctor immediately.

5. Fire-fighting measures**Suitable extinguish agents:**

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment:

Do not inhale explosion gases or combustion gases.

6. Accidental release measures**Person-related safety precautions:**

Ensure adequate ventilation

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

Measures for environmental protection:

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7. Handling and storage**Handling****Information for safe handling:**Keep receptacles tightly sealed. Avoid contact with skin, eyes and clothing.
Wash hands after handling.**Information about fire - and explosion protection:**

No special measures required.

Storage:**Requirements to be met by storerooms and receptacles:** No special requirement**Further information about storage conditions:**

Keep receptacle tightly sealed.

8. Exposure controls/personal protection**Additional information about design of technical facilities:****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

	Wash hands before breaks and at the end of work.
	Avoid contact with the eyes and skin.
Protection of hands:	Protective gloves.
Material of gloves	The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Penetration time of glove material	The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection:	Tightly sealed goggles.

9. Physical and chemical properties

General Information

Form:	Clear liquid
Colour:	Transparent colourless
Odour:	Odourless

Change in condition

Melting point/Melting range:	No data available.
Boiling point/Boiling range:	No data available.
Flash point:	Not flammable
Self-igniting:	Product is not self-igniting.
Danger of explosion:	Product does not present an explosion hazard.
Flammability limit - lower (%)	No data available.
Flammability limit - upper (%)	No data available.
Vapor pressure at 20°C	No data available.
Density	No data available.
Solubility in / Miscibility with water:	Completely soluble
pH-value at 25°C: (n-octanol/water)	pH. 13.2

10. Stability and reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
Dangerous reaction	None.
Dangerous decomposition products:	CO, CO ₂ Nitrogen oxides (NO _x).

11. Toxicological information

Acute toxicity:	.
Primary irritant effect:	Acute Oral LD ₅₀ Rat: > 2000 mg/kg
on the skin:	slight
on the eye:	Irritating effect
Sensitization:	No sensitizing effects known

Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Irritant

12. Ecological information

General notes:

Water hazard class1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. Disposal considerations

Product:

Recommendation	Must not be disposed together with household garbage. Do not allow product to reach sewage system.
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Uncleaned packaging:**Recommendation**

Disposal must be made according to official regulations.

Recommended cleansing agents:

Water, if necessary together with cleansing agent.

14. Transport information

Land transport ADR/RID (cross-border)

ADR/RID class:	8 Corrosive substances.
Danger code (Kemler):	80
UN-Number:	1824
Packing group:	III
Hazard label	8
Description of goods:	1824 Sodium hydroxide solution

Maritime transport IMO:

IMOG Class:	8
UN Number:	1824
Label	3
Packaging group:	III
Marine pollutant:	No
Proper shipping name:	SODIUM HYDROXIDE SOLUTION

Air transport ICAO-TI and IATA-DGR

ICAO/IATA Class:	8
UN/ID Number:	1824
Label	8
Packaging group:	III
Proper shipping name:	SODIUM HYDROXIDE SOLUTION

**IMDG****IATA**

15. Regulatory information

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Code letter and hazard designation of product:

Xi Irritant.

H-Statements:

290 May be corrosive to metals.

Risk phrases:

36/38 Irritating to eyes and skin.

Safety phrases:

13 Keep away from food, drink and animal feeding stuffs.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36 Wear suitable protective clothing

46 If swallowed, seek medical advice immediately and show this container or label.

National regulations:

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.



SAFETY DATA SHEET

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

Use : Nucleic acid Isolation Kit

Product name Neutralization Buffer NDP-01

Product usage QuickGene Plasmid kit: Neutralization Buffer

Manufacturer / Supplier :

KURABO INDUSTRIES LTD.

Bio-Medical Department

Neyagawa Techno Center 3F 14-5 Shimokida-Cho, Neyagawa, Osaka 572-0823, Japan

Telephone Number +81-72-820-3079

FAX Number

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Information department:

Bio-Medical Department

Telephone Number +81-72-820-3079

Email: bio@ad.kurabo.co.jp

Emergency information:

Telephone Number +81-72-820-3079 9:00AM - 6:00PM

Reference file name MSDS_NDP01_01EU

2. Hazards identification

Information pertaining to particular dangers for man and environment

Xi Irritant

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Classification(REGULATION(EC) No 1272/2008

May be corrosive to metals, Category 1, H290

Eye irritation, Category 2, H319

Classification (67/548/EEC or 1999/45/EC)

R 36/38 Irritating to eyes and skin.

Physical hazards	Corrosive to metals	Category 1
Health hazards	Acute toxicity (Oral)	Not classified
	Skin corrosion/irritation	Not classified
	Serious eye damage/eye irritation	Category 2

Labelling (REGULATION(EC) No 1272/2008)

Hazard pictograms




Signal word Warning

Hazard statement	H290	May be corrosive to metals. (Category 1)
	H319	Causes serious eye irritation. (Category 2)

Precautionary statements

Prevention	P234	Keep only in original container.
	P264	Wash thoroughly after handling.
	P280	Wear eye/face protection.
Response	P390	Absorb spillage to prevent material damage.

	P 305 + 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.
Storage	P406	Store in corrosive resistant container with a resistant inner liner.
Labelling (67/548/EEC or 1999/45/EC)		
Symbol(s)	Xi	
R-phrases(s)	22-36/38	

3. Composition/information on ingredients

Chemical characterization

Substance or Mixture Mixture

Description Mixture of substances listed below with nonhazardous additions.

Dangerous components:

	Components	Concentration (%)
CAS: 7732-18-5	water	50 – 70
EINECS: 231-791-2		
CAS: 127-08-2	potassium acetate	20 – 40
EINECS:204-822-2		
CAS: 64-19-7	acetic acid	10 - 20
EINECS:200-580-7		
Chemical formula	H2O (7732-18-5), C2H4O2.K (127-08-2), C2H4O2 (64-19-7)	

(*) Generally chemical substances greater than 1% of the total are listed.

4. First aid measures

After inhalation:	Supply fresh air and to be sure call for a doctor.
After skin contact	Remove contaminated clothing. Wash off with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.
After eye contact	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.
After swallowing	Call for a doctor immediately.

5. Fire-fighting measures

Suitable extinguish agents:	CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Protective equipment:	Do not inhale explosion gases or combustion gases.

6. Accidental release measures

Person-related safety precautions:	Ensure adequate ventilation Wear adequate personal protective equipment, see Section 8 (Exposure Controls/Personal Protection)
Measures for environmental protection:	Do not allow to enter sewers/ surface or ground water.
Measures for cleaning/collecting:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7. Handling and storage

Handling

Information for safe handling:	Keep receptacles tightly sealed. Avoid contact with skin, eyes and clothing. Wash hands after handling.
Information about fire - and explosion protection:	No special measures required.
Storage:	
Requirements to be met by storerooms and receptacles:	No special requirement
Further information about storage conditions:	Keep receptacle tightly sealed.

8. Exposure controls/personal protection

Additional information about design of technical facilities:

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Protection of hands:

Protective gloves.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles.

9. Physical and chemical properties

General Information

Form: Clear liquid
Colour: Transparent colourless
Odour: Odourless

Change in condition

Melting point/Melting range: No data available.
Boiling point/Boiling range: No data available.
Flash point: Not flammable
Self-igniting: Product is not self-igniting.
Danger of explosion: Product does not present an explosion hazard.
Flammability limit - lower (%) No data available.
Flammability limit - upper (%) No data available.
Vapor pressure at 20°C No data available.
Density No data available.
Solubility in / Miscibility with water: Completely soluble
pH-value at 25°C: pH. 5.5 Approx.
(n-octanol/water)

10. Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Dangerous reaction None.
Dangerous decomposition products: CO, CO₂ Nitrogen oxides (NO_x).
Stability Stable at normal conditions.
Other Information Corrosive to metals

11. Toxicological information

Acute toxicity: .
Primary irritant effect: Acute Oral LD₅₀ Rat: > 2000 mg/kg
on the skin: No irritation
on the eye: Irritating effect
Sensitization: No sensitizing effects known

Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Irritant

12. Ecological information

General notes:

Water hazard class1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. Disposal considerations

Product:

Recommendation

Must not be disposed together with household garbage.

Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation

Disposal must be made according to official regulations.

Recommended cleansing agents:

Water, if necessary together with cleansing agent.

14. Transport information

Land transport ADR/RID (cross-border)

ADR/RID class: 8 Corrosive substances.
Danger code (Kemler):
UN-Number: 2790
Packing group: III
Hazard label 8
Description of goods: 2790 ACETIC ACID SOLUTION

Maritime transport IMO:

IMO Class: 8
UN Number: 2790
Label 3
Packaging group: III
Marine pollutant: No
Proper shipping name: ACETIC ACID SOLUTION ; (more than 10% but less than 50% acid, by weight)

Air transport ICAO-TI and IATA-DGR

ICAO/IATA Class: 8
UN/ID Number: 2790
Label 8
Packaging group: III
Proper shipping name: ACETIC ACID SOLUTION ; (more than 10% but less than 50% acid, by weight)



IMDG



IATA

15. Regulatory information

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Code letter and hazard designation of product:

Xi Irritant.

H-Statements:

290 May be corrosive to metals.

Risk phrases:

36/38 Irritating to eyes and skin.

Safety phrases:

13 Keep away from food, drink and animal feeding stuffs.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36 Wear suitable protective clothing

46 If swallowed, seek medical advise immediately and show this container or label.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.



SAFETY DATA SHEET

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

Use : Nucleic acid Isolation Kit

Product name Lysis Buffer LDP-01

Product usage QuickGene Plasmid kit: Lysis Buffer

Manufacturer /Supplier

KURABO INDUSTRIES LTD.

Bio-Medical Department

Neyagawa Techno Center 3F 14-5 Shimokida-Cho, Neyagawa, Osaka 572-0823, Japan

Telephone Number +81-72-820-3079

FAX Number

+81-72-820-3095

Information department:

Bio-Medical Department

Telephone Number +81-72-820-3079

Email: bio@ad.kurabo.co.jp

Emergency information:

Telephone Number +81-72-820-3079 9:00AM - 6:00PM

Reference file name MSDS_LDP01_01EU

2. Hazards identification

Information pertaining to particular dangers for man and environment

No hazardous product as specified in Directive 67/548/EEC and 1999/45/EC.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3. Composition/information on ingredients

Chemical characterization

Substance or Mixture

Mixture

Components:

	Components	Concentration (%)
CAS: 7732-18-5	water	60 – 80
EINECS: 231-791-2		
---	polyoxyethylene sorbitan fatty acid ester	15 – 30
EINECS:		
---	hydrochloride salts of aminoalcohol	1 – 5
EINECS:		
Chemical formula	H ₂ O (7732-18-5)	

(*) Generally chemical substances greater than 1% of the total are listed.

4. First aid measures

After inhalation:	Supply fresh air and to be sure call for a doctor.
After skin contact	Remove contaminated clothing. Wash off with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.
After eye contact	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.
After swallowing	Call for a doctor immediately.

5. Fire-fighting measures

Suitable extinguish agents:	CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Protective equipment:	Do not inhale explosion gases or combustion gases.
Extinguishing media	Carbon dioxide, dry chemical and protein based foam.

6. Accidental release measures

Person-related safety precautions:	Ensure adequate ventilation Wear adequate personal protective equipment, see Section 8 (Exposure Controls/Personal Protection)
Measures for environmental protection:	Do not allow to enter sewers/ surface or ground water.
Measures for cleaning/collecting:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7. Handling and storage

Handling

Information for safe handling:	Keep receptacles tightly sealed. Avoid contact with skin, eyes and clothing. Wash hands after handling.
Information about fire - and explosion protection:	No special measures required.
Storage:	
Requirements to be met by storerooms and receptacles:	No special requirement
Further information about storage conditions:	Keep receptacle tightly sealed.

8. Exposure controls/personal protection

Additional information about design of technical facilities:

Personal protective equipment:

General protective and hygienic measures:	Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
Protection of hands:	Protective gloves.
Material of gloves	The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Penetration time of glove material	The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection:	Tightly sealed goggles.

9. Physical and chemical properties

General Information

Form:	Clear liquid
Colour:	Yellow
Odour:	Practically odourless

Change in condition

Melting point/Melting range:	No data available.
Boiling point/Boiling range:	No data available.
Flash point:	Not flammable
Self-igniting:	Product is not self-igniting.
Danger of explosion:	Product does not present an explosion hazard.
Flammability limit - lower (%)	No data available.
Flammability limit - upper (%)	No data available.
Vapor pressure at 20°C	No data available.
Density	No data available.
Solubility in / Miscibility with water:	Completely soluble

pH-value at 25°C:
(n-octanol/water)

pH. 6.0 Approx.

10. Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Dangerous reaction None.
Dangerous decomposition products: CO,CO2 Nitrogen oxides (NOx).

11. Toxicological information

Acute toxicity: No toxicity
Primary irritant effect: Acute Oral LD50 Rat: > 2000 mg/kg
on the skin: No irritation
on the eye: No irritation
Sensitization: No sensitizing effects known
Additional toxicological information: No further data

12. Ecological information

General notes: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. Disposal considerations

Product:
Recommendation Must not be disposed together with household garbage.
Do not allow product to reach sewage system.

14. Transport information

Land transport ADR/RID (cross-border)
ADR/RID class:
Maritime transport IMO:
IMO Class:
Air transport ICAO-TI and IATA-DGR
ICAO/IATA Class: -
Transport /Additional information:
Not dangerous according to the above specifications.

15. Regulatory information

Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.



SAFETY DATA SHEET

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

Use : Nucleic acid Isolation Kit

Product name Wash Buffer WDP-01

Product usage QuickGene Plasmid kit: Wash Buffer

Manufacturer / Supplier :

KURABO INDUSTRIES LTD.

Bio-Medical Department

Neyagawa Techno Center 3F 14-5 Shimokida-Cho, Neyagawa, Osaka 572-0823, Japan

Telephone Number +81-72-820-3079

FAX Number

+81-72-820-3095

Information department:

Bio-Medical Department

Telephone Number +81-72-820-3079

Email: bio@ad.kurabo.co.jp

Emergency information:

Telephone Number +81-72-820-3079 9:00AM - 6:00PM

Reference file name MSDS_WDP01_01EU

2. Hazards identification

Information pertaining to particular dangers for human and environment

No hazardous product as specified in Directive 67/548/EEC and 1999/45/EC.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data. GHS-classification

Health hazards	Acute toxicity (Oral)	Not classified
	Skin corrosion/irritation	Not classified
	Serious eye damage/eye irritation	Not classified

3. Composition/information on ingredients

Chemical characterization

Substance or Mixture Mixture

Description Mixture of substances listed below with nonhazardous additions.

Components:

	Components	Concentration (%)
CAS: 7732-18-5	water	80 – 100
EINECS: 231-791-2		
CAS: 1185-53-1	tris(hydroxymethyl)aminomethane hydrochloride salt	0.5 - 1.5
EINECS: 214-684-5		
Chemical formula	H ₂ O (7732-18-5), C ₄ H ₁₂ CINO ₃ (1185-53-1)	

(*) Generally chemical substances greater than 1% of the total are listed.

4. First aid measures

After inhalation: Supply fresh air and to be sure call for a doctor.

After skin contact: Remove contaminated clothing. Wash off with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.

After eye contact: Rinse opened eye for several minutes under running water. Get medical attention if irritation develops and persists.

After swallowing: Call for a doctor immediately.

5. Fire-fighting measures

Suitable extinguish agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment: Do not inhale explosion gases or combustion gases.

6. Accidental release measures

Person-related safety precautions: Ensure adequate ventilation
Wear adequate personal protective equipment, see Section 8 (Exposure Controls/Personal Protection)

Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7. Handling and storage

Handling

Information for safe handling: Keep receptacles tightly sealed. Avoid contact with skin, eyes and clothing.
Wash hands after handling.

Information about fire - and explosion protection: No special measures required.

Storage:

Requirements to be met by storerooms and receptacles: No special requirement

Further information about storage conditions: Keep receptacle tightly sealed.

8. Exposure controls/personal protection

Additional information about design of technical facilities:

Personal protective equipment:

General protective and hygienic measures: Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Protection of hands: Protective gloves.

Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles.

9. Physical and chemical properties

General Information

Form: Aqueous solution

Colour: Transparent colourless

Odour: Odourless

Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: No data available.

Flash point: Not flammable

Self-igniting: Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Flammability limit - lower (%) No data available.

Flammability limit - upper (%) No data available.

Vapor pressure at 20°C No data available.

Density No data available.

Solubility in / Miscibility with water: Completely soluble

pH-value:
(n-octanol/water)

pH 9.

10. Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Dangerous reaction None.
Dangerous decomposition products: CO,CO2 Nitrogen oxides (NOx).

11. Toxicological information

Acute toxicity: No toxicity
Primary irritant effect: Acute Oral LD50 Rat: > 2000 mg/kg
on the skin: No irritation
on the eye: No irritation
Sensitization: No sensitizing effects known
Additional toxicological information: No further data

12. Ecological information

General notes: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. Disposal considerations

Product:
Recommendation Must not be disposed together with household garbage.
Do not allow product to reach sewage system.

14. Transport information

Land transport ADR/RID (cross-border)
ADR/RID class:
Maritime transport IMO:
IMOG Class:
Air transport ICAO-TI and IATA-DGR
ICAO/IATA Class: -
Transport /Additional information:
Not dangerous according to the above specifications

15. Regulatory information

Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
Code letter and hazard designation of product:
Not regulated.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.



SAFETY DATA SHEET

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

Use : Nucleic acid Isolation Kit

Product name Elution Buffer CDP-01

Product usage QuickGene Plasmid kit : Elution Buffer

Manufacturer / Supplier :

KURABO INDUSTRIES LTD.

Bio-Medical Department

Neyagawa Techno Center 3F 14-5 Shimokida-Cho, Neyagawa, Osaka 572-0823, Japan

Telephone Number +81-72-820-3079

FAX Number

+81-72-820-3095

Information department:

Bio-Medical Department

Telephone Number +81-72-820-3079

Email: bio@ad.kurabo.co.jp

Emergency information:

Telephone Number +81-72-820-3079 9:00AM - 6:00PM

Reference file name MSDS_CDP01_01EU

2. Hazards identification

Information pertaining to particular dangers for human and environment

No hazardous product as specified in Directive 67/548/EEC and 1999/45/EC.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data. GHS-classification

Health hazards	Acute toxicity (Oral)	Not classified
	Skin corrosion/irritation	Not classified
	Serious eye damage/eye irritation	Not classified

3. Composition/information on ingredients

Chemical characterization

Substance or Mixture Mixture

Description Mixture of substances listed below with nonhazardous additions.

Components:

	Components	Concentration (%)
CAS 7732-18-5	water	80 – 100
EINECS: 231-791-2		
Chemical formula	H ₂ O (7732-18-5)	

(*) Generally chemical substances greater than 1% of the total are listed.

4. First aid measures

After inhalation: Supply fresh air and to be sure call for a doctor.

After skin contact: Remove contaminated clothing. Wash off with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.

After eye contact: Rinse opened eye for several minutes under running water. Get medical attention if irritation develops and persists.

After swallowing: Call for a doctor immediately.

5. Fire-fighting measures

Suitable extinguish agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment:

Do not inhale explosion gases or combustion gases.

6. Accidental release measures**Person-related safety precautions:**

Ensure adequate ventilation

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

Measures for environmental protection:

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7. Handling and storage**Handling****Information for safe handling:**

Keep receptacles tightly sealed. Avoid contact with skin, eyes and clothing.

Wash hands after handling.

Information about fire - and explosion protection:

No special measures required.

Storage:**Requirements to be met by storerooms and receptacles:** No special requirement**Further information about storage conditions:**

Keep receptacle tightly sealed.

8. Exposure controls/personal protection**Additional information about design of technical facilities:****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Protection of hands:

Protective gloves.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles.

9. Physical and chemical properties**General Information****Form:**

Aqueous solution

Colour:

Transparent colourless

Odour:

Odourless

Change in condition**Melting point/Melting range:**

Undetermined.

Boiling point/Boiling range:

No data available.

Flash point:

Not flammable

Self-igniting:

Product is not self-igniting.

Danger of explosion:

Product does not present an explosion hazard.

Flammability limit - lower (%)

No data available.

Flammability limit - upper (%)

No data available.

Vapor pressure at 20°C

No data available.

Density

No data available.

Solubility in / Miscibility with water:

Completely soluble

pH-value:

pH 9.

(n-octanol/water)

10. Stability and reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
Dangerous reaction	None.
Dangerous decomposition products:	CO,CO2 Nitrogen oxides (NOx).

11. Toxicological information

Acute toxicity:	No toxicity
Primary irritant effect:	Acute Oral LD50 Rat: > 2000 mg/kg
on the skin:	No irritation
on the eye:	No irritation
Sensitization:	No sensitizing effects known
Additional toxicological information:	No further data

12. Ecological information

General notes:	Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
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13. Disposal considerations

Product:	
Recommendation	Must not be disposed together with household garbage. Do not allow product to reach sewage system.

14. Transport information

Land transport ADR/RID (cross-border)	
ADR/RID class:	
Maritime transport IMO:	
IMO Class:	
Air transport ICAO-TI and IATA-DGR	
ICAO/IATA Class:	-
Transport /Additional information:	Not dangerous according to the above specifications

15. Regulatory information

Labelling according to EU guidelines:	The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
Code letter and hazard designation of product:	Not regulated.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.