



## **SAFETY DATA SHEET**

QuickGene DNA tissue kit L

**SDS\_EDT01\_02EU**

**SDS\_LDT01\_02EU**

**SDS\_MDT01\_02EU**

**SDS\_WDT01\_02EU**

**SDS\_CDT01\_02EU**

**KURABO INDUSTRIES LTD.**

**Bio-Medical Department**

<b>Address</b>	Neyagawa Techno Center 3F 14-5 Shimokida-Cho, Neyagawa, Osaka 572-0823, Japan
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## SAFETY DATA SHEET

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

#### 1.1 Product identifier

**Product name** : Proteinase K EDT-01  
**Product number** : EDT-01  
**Product usage** : QuickGene DNA tissue kit: **Proteinase K**

#### 1.2 Relevant Identified uses of the substance or mixture and uses advised against

**Relevant identified uses** : Professional uses [SU22], Laboratory chemicals [PC21]

#### 1.3 Detail of the supplier of the safety data sheet

**Manufacturer/Supplier** : KURABO INDUSTRIES LTD. Bio-Medical Department  
**Address** : 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  
**e-mail address** : qa@ad.kurabo.co.jp

#### 1.4 Emergency telephone number

**Emergency Phone#** : +81-72-820-3079  
**Opening hours** : Monday to Friday, 9:00 to 18:00 (excluding Saturdays, Sundays and holidays, the New Year holidays)

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

##### 2.1.1 Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

Respiratory sensitization (Category 1)  
Skin irritation. (Category 1)  
Serious eye irritation. (Category 2)  
Classification (67/548/EEC,1999/45/EC)  
Sensitising R42/43: May cause sensitization by inhalation and skin contact.

#### 2.2 Label elements

##### Labelling according to Regulation (EC) No 1272/2008 [CLP]

##### Hazard pictogram (s):



**Signal word:** Danger

##### Hazard statement (s):

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317 May cause an allergic skin irritation.

##### Precautionary statement (s):

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P280 Wear eye/face protection. Wear protective gloves.  
P285 In case of inadequate ventilation wear respiratory protection.  
P264 Wash thoroughly after handling.  
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P302+P352 If ON SKIN: Wash with plenty of soap and water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

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.

P362 Take off contaminated clothing and wash before reuse.

**2.3 Other hazards**

No information available.

**3. Composition/information on ingredients****3.2 Mixtures**

CAS No.	EC No.	REACH Registration No.	Name	Formula	Molecular Weight (g/mol)	Weight (%)	Classification
7732-18-5	231-791-2	-	Water	H <sub>2</sub> O	18	40-60	-
56-81-5	200-289-5	-	Glycerin	C <sub>3</sub> H <sub>5</sub> (OH) <sub>3</sub>	92.09	40-60	-
39450-01-6	254-457-8	-	Proteinase K	-	-	1-5	Xi; Xi; R36/37/38 Xn; R42 Xi; R43 (67/548/EEC) Skin Irrit.2;H315 Eye Irrit.2;H319 Resp. Sens. 1;H334 Skin Sens.1;H317 STOT SE 3;H335 (REGULATION(EC) No1272/2008)

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

**4. First aid measures****4.1 Description of first aid measures****- following inhalation**

Call a physician or poison control centre immediately.

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If unconscious place in recovery position and seek medical advice.

**- following skin contact**

Wash off with soap and plenty of water. Consult a physician.

**- following eye contact**

Flush eyes with water as a precaution. Consult a physician.

Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing.

**- self-protection of the first aider**

Wear protective gloves/protective clothing/eye protection/face protection.

**4.2 Most important symptoms and effects, both acute and delayed**

No information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

**5. Firefighting measures****5.1 Extinguishing media**

**Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media** : High volume water jet

**5.2 Special hazards arising from the substance or mixture**

No information available.

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information**

Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**6. Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****6.1.1 For non-emergency personnel**

**Protective equipment:** Use personal protective equipment.

**Emergency procedures:** Ensure adequate ventilation. Avoid breathing vapours, mist or gas.

**6.1.2 For emergency responders**

No information available

**6.2 Environmental precautions**

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

Local authorities should be advised if significant spillages cannot be contained.

**6.3 Methods and material for containment and cleaning up**

**6.3.1 For containment:** Keep in suitable, closed containers for disposal.

**6.3.2 For cleaning up:** Soak up with inert absorbent material. (e.g. sand, silica gel, acid binder, universal binder, sawdust).

**6.3.3 Other information:** No information available

**6.4 Reference to other sections**

For disposal see section 13.

**7. Handling and storage****7.1 Precautions for safe handling**

**Protective measures:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

**Measures to prevent fire:** Normal measures for preventive fire protection.

**Measures to prevent aerosol and dust generation:** Avoid exposure – obtain special instructions before use.

**Measures to protect the environment:** Provide sufficient air exchange and/or exhaust in work rooms.  
Dispose of rinse water in accordance with local and national regulations.

**Advice on general occupational hygiene:** No data available

**7.2 Conditions for safe storage, including any incompatibilities**

**Technical measures and storage conditions:** Store in room temperature (15-28°C).

**Packaging materials:** Store in original container.

**Requirements for storage rooms and vessels:** Keep container tightly closed in a dry and well-ventilated place.

**7.3 Specific end use(s)**

**Recommendations:** Laboratory chemicals

**Industrial sector specific solutions:** No data available

**8. Exposure controls/personal protection****8.1 Control parameters**

Contains no substances with occupational exposure limit values.

**8.2 Exposure controls****8.2.1 Appropriate engineering controls**

**Substance/ mixture related measures to prevent exposure during identified uses:** No data available

**Structural measures to prevent exposure:** No data available

**Organizational measures to prevent exposure:** General industrial hygiene practice

**Technical measures to prevent exposure:**

No data available

**8.2.2 Personal protective equipment****Eye and face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Tightly fitting safety goggles.

**Skin protection****Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Other skin protection**

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Respiratory protection not required. For nuisance exposure use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Thermal hazards**

No data available

**8.2.3 Environmental exposure controls**

**Substance/ mixture related measures to prevent exposure:** No data available

**Instruction measures to prevent exposure:** No data available

**Organizational measures to prevent exposure:** No data available

**Technical measures to prevent exposure:** No data available

**9. Physical and chemical properties****9.1 Information on basic physical and chemical properties**

a) Appearance:	Form: liquid
	Colour: colourless
b) Odour	odourless
c) Odour threshold:	No data available
d) pH:	7.5
e) Melting point/ freezing point:	No data available
f) Initial boiling point and boiling range:	No data available
g) Flash point:	No data available
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/ lower flammability or explosive limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	ca. 1.1 g/cm <sup>3</sup>
n) Solubility (ies):	Easily soluble
o) Partition coefficient: n-octanol/ water:	No data available
p) Auto-ignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	No data available
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

**9.2 Other safety information**

No data available

## 10. Stability and reactivity

### 10.1 Reactivity

It is stable at under normal handling conditions.

### 10.2 Chemical stability

It is stable at under normal handling conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions

Reacts with the following substances

Nitric acid

Strong oxidizing agents

Hydrogen halides

Reacts violently with peroxides.

### 10.4 Conditions to avoid

Conditions to avoid

Heat, flames and sparks

Freezing, avoid direct rays of the sun.

### 10.5 Incompatible materials

Materials to avoid

Strong bases

Strong oxidizing agents

Nitric acid

Peroxides

### 10.6 Hazardous decomposition products

Hazardous decomposition products

Heating can release hazardous gases.

## 11. Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/ irritation

May cause skin irritation and/or dermatitis.

Serious eye damage/ irritation

Vapours may cause irritation to the eyes, respiratory system and the skin.

Respiratory or skin sensitization

Cause sensitization.

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity (STOT) - single exposure

May cause respiratory irritation.

Specific target organ toxicity (STOT) - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, Repeated exposure.

Aspiration hazard

No data available

Potential health effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes serious eye irritation.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional information**

RTECS: Not available

**12. Ecological information****12.1 Toxicity**

**Acute (short-term) toxicity:** No data available

**Fish:** No data available

**Crustacea:** No data available

**Algae/ aquatic plants:** No data available

**Other organisms:** No data available

**Chronic (long-term) toxicity:** No data available

**Fish:** No data available

**Crustacea:** No data available

**Algae/ aquatic plants:** No data available

**Other organisms:** No data available

**12.2 Persistence and degradability**

**Abiotic Degradation:** No data available

**Physical- and photo-chemical elimination:** No data available

**Biodegradation:** No data available

**12.3 Bioaccumulative potential**

**Partition coefficient n-octanol/ water (log Kow):** No data available

**Bioconcentration factor (BCF):** No data available

**12.4 Mobility in soil**

**Known or predicted distribution to environmental compartments:** No data available

**Surface tension:** No data available

**Adsorption/ Desorption:** No data available

**12.5 Results of PBT and vPvB assessment**

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT),.

This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

**12.6 Other adverse effects**

No data available

**12.7 Additional information**

No information available

**13. Disposal considerations****13.1 Waste treatment methods**

**Product/ Packaging disposal:** Offer surplus and non-recyclable solutions to a licensed disposal company.

Dispose of as unused product.

**Waste codes/ Waste designations according to LoW:** No data available

**Waste treatment-relevant information:** No data available

**Sewage disposal-relevant information:** No data available

**Other disposal recommendations:** No data available

## 14. Transport information

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class (es)

ADR/RID: -

IMDG: -

IATA: -

### 14.4 Packing group

ADR/RID: -

IMDG: -

IATA: -

### 14.5 Environmental hazards

ADR/RID: No

IMDG Marine pollutant: No

IATA: No

### 14.6 Special precautions for user

Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Remarks

Not applicable

## 15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

Authorisations and/ or restrictions on use: No data available

Authorisations: No data available

Restrictions on use: No data available

Other EU regulations: No data available

#### Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

National regulations (Germany): No data available

#### Restrictions of occupation:

Störfallverordnung (12.BImSchV): No data available

Wassergefährdungsklasse (water hazard class): No data available

Technische Anleitung Luft (TA-Luft): No data available

Other regulations, restrictions and prohibition regulations: No data available

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16. Other information

#### (i) Indication of changes:

Full text of R-phrases referred to under sections 2 and 3

R36/37/38 Irritating to eyes, respiratory system and skin.

R42 May cause sensitization by inhalation

R/42/43 May cause sensitization by inhalation and skin contact.

R43 May cause sensitization by skin contact.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.



- (ii) Abbreviations and acronyms:
- (iii) Key literature references and sources for data
- (iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

This description has been prepared based on information, available at this time. But it does not necessarily guarantee the integrity of the description and evaluation data. Because assessment of risk and toxicity is not necessarily sufficient, you should be handled with great care. These precautions are for normal handling to our product. So, about other exception, you should be handled with carrying out the safety measures with the responsibility of the user.

In addition, we have posted the safety data sheet of the latest version on our website (<http://www.kurabo.co.jp/bio/English>).

Bio-Medical department / KURABO



## SAFETY DATA SHEET

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

#### 1.1 Product identifier

**Product name** : Lysis Buffer LDT-01  
**Product number** : LDT-01  
**Product usage** : QuickGene DNA tissue kit: **Lysis Buffer**

#### 1.2 Relevant Identified uses of the substance or mixture and uses advised against

**Relevant identified uses** : Professional uses [SU22], Laboratory chemicals [PC21]

#### 1.3 Detail of the supplier of the safety data sheet

**Manufacturer/Supplier** : KURABO INDUSTRIES LTD. Bio-Medical Department  
**Address** : 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  
**e-mail address** : qa@ad.kurabo.co.jp

#### 1.4 Emergency telephone number

**Emergency Phone#** : +81-72-820-3079  
**Opening hours** : Monday to Friday, 9:00 to 18:00 (excluding Saturdays, Sundays and holidays, the New Year holidays)

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

##### 2.1.1 Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

Harmful if swallowed. (Category 4)  
Skin irritation. (Category 2)  
Serious eye irritation. (Category 2)

#### 2.2 Label elements

##### Labelling according to Regulation (EC) No 1272/2008 [CLP]

**Hazard pictogram (s):**



**Signal word:** Warning

**Hazard statement (s):**

**H302** Harmful if swallowed (Category 4)  
**H315** Causes skin irritation. (Category 2)  
**H319** Causes serious eye irritation. (Category 2)

**Precautionary statement (s):**

**P280** Wear eye/face protection. Wear protective gloves.  
**P270** Do not eat, drink or smoke when using this product.  
**P264** Wash thoroughly after handling.  
**P312** Call a doctor/physician if you feel unwell.  
**P330** Rinse mouth.  
**P302 + P352** IF ON SKIN: Wash with plenty of soap and water.  
**P332 + P313** If skin irritation occurs: Get medical advice/attention.  
**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.  
**P362** Take off contaminated clothing and wash before reuse.

**Labelling according to Directive 67/548/EEC**

Hazard symbol (s):



R-phrases(s)	22-36/38
R22	Harmful if swallowed.
R36/38	Irritating to eyes and skin
S-phrases(s)	26-37
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37	Wear suitable gloves.

**2.3 Other hazards**

Not applicable.

**3. Composition/information on ingredients****3.2 Mixtures**

CAS No.	EC No.	REACH Registration No.	Name	Formula	Molecular Weight (g/mol)	Weight (%)	Classification
50-01-1	200-002-3	-	Guanidine hydrochloride	$\text{NH}_2\text{C}(=\text{NH})\text{NH}_2 \cdot \text{HCl}$	95.53	40-60	Acute Tox.4 (Oral), H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319
7732-18-5	231-791-2	-	Water	$\text{H}_2\text{O}$	18	20-40	-
9005-64-5	500-018-3	-	Polyoxyethylene sorbitan fatty acid ester	$\text{C}_{22}\text{H}_{42}\text{O}_3$	354.57	10-20	-
6976-37-0	230-237-7	-	Hydrochloride salts of aminoalcohol	$\text{C}_8\text{H}_{19}\text{NO}_5$	209.24	1-5	-

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

**4. First aid measures****4.1 Description of first aid measures****- following inhalation**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**- following skin contact**

Wash off with soap and plenty of water. Consult a physician.

**- following eye contact**

Flush eyes with water as a precaution. Consult a physician.

**- self-protection of the first aider**

Wear protective gloves/protective clothing/eye protection/face protection.

**4.2 Most important symptoms and effects, both acute and delayed**

No information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

**5. Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.**Unsuitable extinguishing media** : None**5.2 Special hazards arising from the substance or mixture**

No information available.

### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 5.4 Further information

No data available.

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.1.1 For non-emergency personnel

**Protective equipment:** Use personal protective equipment.

**Emergency procedures:** Avoid breathing vapors, mist or gas.

#### 6.1.2 For emergency responders

No data available

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and material for containment and cleaning up

**6.3.1 For containment:** Keep in suitable, closed containers for disposal.

**6.3.2 For cleaning up:** No data available

**6.3.3 Other information:** No data available

### 6.4 Reference to other sections

For disposal see section 13.

## 7. Handling and storage

### 7.1 Precautions for safe handling

**Protective measures:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

**Measures to prevent fire:** Normal measures for preventive fire protection.

**Measures to prevent aerosol and dust generation:** No data available

**Measures to protect the environment:** No data available

**Advice on general occupational hygiene:** No data available

### 7.2 Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions:** Store in room temperature (15-28°C).

**Packaging materials:** Store in original container.

**Requirements for storage rooms and vessels:** Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use (s)

**Recommendations:** No data available

**Industrial sector specific solutions:** No data available

## 8. Exposure controls/personal protection

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

**Substance/ mixture related measures to prevent exposure during identified uses:** No data available

**Structural measures to prevent exposure:** No data available

**Organizational measures to prevent exposure:** General industrial hygiene practice

**Technical measures to prevent exposure:** No data available

#### 8.2.2 Personal protective equipment

**Eye and face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection****Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Other skin protection**

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Respiratory protection not required. For nuisance exposure use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Thermal hazards**

No data available

**8.2.3 Environmental exposure controls**

**Substance/ mixture related measures to prevent exposure:** No data available

**Instruction measures to prevent exposure:** No data available

**Organizational measures to prevent exposure:** No data available

**Technical measures to prevent exposure:** No data available

**9. Physical and chemical properties****9.1 Information on basic physical and chemical properties**

a) Appearance:	<b>Form:</b> Clear liquid <b>Colour:</b> Light yellow
b) Odour	None
c) Odour threshold:	No data available
d) pH:	6.0
e) Melting point/ freezing point:	No data available
f) Initial boiling point and boiling range:	No data available
g) Flash point:	No data available
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/ lower flammability or explosive limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	No data available
n) Solubility (ies):	No data available
o) Partition coefficient: n-octanol/ water:	No data available
p) Auto-ignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	None
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

**9.2 Other safety information**

No data available

**10. Stability and reactivity****10.1 Reactivity**

It is stable at under normal handling conditions.

**10.2 Chemical stability**

It is stable at under normal handling conditions.

### 10.3 Possibility of hazardous reactions

None

### 10.4 Conditions to avoid

Freezing, avoid direct rays of the sun.

### 10.5 Incompatible materials

None

### 10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide, nitrogen oxides

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Harmful if swallowed.

Acute Oral LD50 Rat: > 500 mg/kg

#### Skin corrosion/ irritation

May be harmful if absorbed through skin. Causes skin irritation.

#### Serious eye damage/ irritation

Moderately irritant effect

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### Reproductive toxicity

No data available

#### Specific target organ toxicity (STOT) - single exposure

No data available.

#### Specific target organ toxicity (STOT) - repeated exposure

No data available

#### Aspiration hazard

No data available

#### Potential health effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes serious eye irritation.

#### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### Additional information

RTECS: Not available

## 12. Ecological information

### 12.1 Toxicity

Acute (short-term) toxicity:

No data available

Fish:

No data available

Crustacea:

No data available

Algae/ aquatic plants:

No data available

<b>Other organisms:</b>	No data available
<b>Chronic (long-term) toxicity:</b>	No data available
<b>Fish:</b>	No data available
<b>Crustacea:</b>	No data available
<b>Algae/ aquatic plants:</b>	No data available
<b>Other organisms:</b>	No data available

## 12.2 Persistence and degradability

<b>Abiotic Degradation:</b>	No data available
<b>Physical- and photo-chemical elimination:</b>	No data available
<b>Biodegradation:</b>	No data available

### 12.3 Bioaccumulative potential

<b>Partition coefficient n-octanol/ water (log Kow):</b>	No data available
<b>Bioconcentration factor (BCF):</b>	No data available

## 12.4 Mobility in soil

Known or predicted distribution to environmental compartments:	No data available
Surface tension:	No data available
Adsorption/ Desorption:	No data available

## 12.5 Results of PBT and vPvB assessment

No data available

## 12.6 Other adverse effects

No data available

## 12.7 Additional information

No information available

### 13. Disposal considerations

### 13.1 Waste treatment methods

<b>Product/ Packaging disposal:</b>	Offer surplus and non-recyclable solutions to a licensed disposal company. Dispose of as unused product.
<b>Waste codes/ Waste designations according to LoW:</b>	No data available
<b>Waste treatment-relevant information:</b>	No data available
<b>Sewage disposal-relevant information:</b>	No data available
<b>Other disposal recommendations:</b>	No data available

## 14. Transport information

### 14.1 UN number

ADR/RID: - IMDG: - IATA: -

## 14.2 UN proper shipping name

ADR/RID:	Not dangerous goods
IMDG:	Not dangerous goods
IATA:	Not dangerous goods

### 14.3 Transport hazard class (es)

ADR/RID: - IMDG: - IATA: -

## 14.4 Packing group

ADR/RID: - IMDG: - IATA: -

## 14.5 Environmental hazards

ADR/RID: No IMDG Marine pollutant: No IATA: No

## 14.6 Special precautions for user

Not dangerous goods in the meaning of ADR/RID, ADNR, IMDG-Code, ICAO/IATA-DGR

## 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available

## 15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

**Authorisations and/ or restrictions on use:** No data available

**Authorisations:** No data available

**Restrictions on use:** No data available

**Other EU regulations:** No data available

#### Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

**National regulations (Germany):** No data available

#### Restrictions of occupation:

**Störfallverordnung (12.BImSchV):** No data available

**Wassergefährdungsklasse (water hazard class):** No data available

**TechnischeAnleitungLuft (TA-Luft):** No data available

**Other regulations, restrictions and prohibition regulations:** No data available

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16. Other information

#### (i) Indication of changes:

Full text of R-phrases referred to under sections 2 and 3

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin

Full text of H-phrases referred to under sections 2 and 3

Acute Tox. 4 (Oral) Acute toxicity (oral) Category 4

Eye Irrit. 2A Serious eye damage/eye irritation Category 2A

Skin Irrit.2 skin corrosion/irritation Category 2

H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

#### (ii) Abbreviations and acronyms:

#### (ii) Key literature references and sources for data

#### (iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

This description has been prepared based on information, available at this time. But it does not necessarily guarantee the integrity of the description and evaluation data. Because assessment of risk and toxicity is not necessarily sufficient, you should be handled with great care.

These precautions are for normal handling to our product. So, about other exception, you should be handled with carrying out the safety measures with the responsibility of the user.

In addition, we have posted the safety data sheet of the latest version on our website (<http://www.kurabo.co.jp/bio/English>).

Bio-Medical department / KURABO





## SAFETY DATA SHEET

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

#### 1.1 Product identifier

**Product name** : Tissue lysis Buffer MDT-01  
**Product number** : MDT-01  
**Product usage** : QuickGene DNA tissue kit: **Tissue Lysis Buffer**

#### 1.2 Relevant Identified uses of the substance or mixture and uses advised against

**Relevant identified uses** : Professional uses [SU22], Laboratory chemicals [PC21]

#### 1.3 Detail of the supplier of the safety data sheet

**Manufacturer/Supplier** : KURABO INDUSTRIES LTD. Bio-Medical Department  
**Address** : 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  
**e-mail address** : qa@ad.kurabo.co.jp

#### 1.4 Emergency telephone number

**Emergency Phone#** : +81-72-820-3079  
**Opening hours** : Monday to Friday, 9:00 to 18:00 (excluding Saturdays, Sundays and holidays, the New Year holidays)

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

##### 2.1.1 Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

Skin irritation. (Category 2)

Serious eye irritation. (Category 2)

#### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008 [CLP]**

**Hazard pictogram (s):**



**Signal word:** Warning

**Hazard statement (s):**

**H315** Causes skin irritation (Category 2)  
**H319** Causes serious eye irritation. (Category 2)

**Precautionary statement (s):**

**P280** Wear eye/face protection. Wear protective gloves.  
**P264** Wash thoroughly after handling.  
**P302+P352** If ON SKIN: Wash with plenty of soap and water.  
**P332+P313** If skin irritation occurs: Get medical advice/attention.  
**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.  
**P362** Take off contaminated clothing and wash before reuse.

#### 2.3 Other hazards

Not applicable.

### 3. Composition/information on ingredients

#### 3.2 Mixtures

CAS No.	EC No.	REACH Registration No.	Name	Formula	Molecular Weight (g/mol)	Weight (%)	Classification
7732-18-5	231-791-2	-	Water	H <sub>2</sub> O	18	80-98	-
139-33-3	205-358-3	-	Disodium ethylenediamine tetraacetate	C <sub>10</sub> H <sub>16</sub> N <sub>2</sub> O <sub>8</sub> Na <sub>2</sub>	336.24	1-5	-
151-21-3	205-788-1	-	Sodium lauryl sulfate	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>11</sub> OSO <sub>3</sub> Na	288.38	1-5	Flam.Sol 1;Acute Tox.4;Acute Tox.3;Skin Irrit. 2;Eye Dam. 1;STOT SE 3; H228,H302,H311,H315,H318,H335 F, Xn, R11 R21/22 R37/38 R41

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

### 4. First aid measures

#### 4.1 Description of first aid measures

##### - following inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

##### - following skin contact

Wash off with soap and plenty of water. Consult a physician.

##### - following eye contact

Flush eyes with water as a precaution. Consult a physician.

##### - self-protection of the first aider

Wear protective gloves/protective clothing/eye protection/face protection.

#### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

### 5. Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media** : None

#### 5.2 Special hazards arising from the substance or mixture

No information available.

#### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

#### 5.4 Further information

No information available.

### 6. Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

##### 6.1.1 For non-emergency personnel

**Protective equipment:** Use personal protective equipment.

**Emergency procedures:** Avoid breathing vapours, mist or gas.

##### 6.1.2 For emergency responders

No data available

## 6.2 Environmental precautions

Do not let product enter drains.

## 6.3 Methods and material for containment and cleaning up

**6.3.1 For containment:** Keep in suitable, closed containers for disposal.

**6.3.2 For cleaning up:** Wipe up with absorbent material.

**6.3.3 Other information:** No data available

## 6.4 Reference to other sections

For disposal see section 13.

## 7. Handling and storage

### 7.1 Precautions for safe handling

**Protective measures:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

**Measures to prevent fire:** Normal measures for preventive fire protection.

**Measures to prevent aerosol and dust generation:** No data available

**Measures to protect the environment:** No data available

**Advice on general occupational hygiene:** No data available

### 7.2 Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions:** Store in room temperature (15-28°C).

**Packaging materials:** Store in original container.

**Requirements for storage rooms and vessels:** Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use (s)

**Recommendations:** Laboratory chemicals

**Industrial sector specific solutions:** No data available

## 8. Exposure controls/personal protection

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

**Substance/ mixture related measures to prevent exposure during identified uses:** No data available

**Structural measures to prevent exposure:** No data available

**Organizational measures to prevent exposure:** General industrial hygiene practice

**Technical measures to prevent exposure:** No data available

#### 8.2.2 Personal protective equipment

##### Eye and face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

###### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

###### Other skin protection

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Respiratory protection not required. For nuisance exposure use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Thermal hazards

No data available

### 8.2.3 Environmental exposure controls

Substance/ mixture related measures to prevent exposure:	No data available
Instruction measures to prevent exposure:	No data available
Organizational measures to prevent exposure:	No data available
Technical measures to prevent exposure:	No data available

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance:	Form: Clear liquid
	Colour: Colourless
b) Odour	Odourless
c) Odour threshold:	No data available
d) pH:	8.4
e) Melting point/ freezing point:	No data available
f) Initial boiling point and boiling range:	No data available
g) Flash point:	No data available
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/ lower flammability or explosive limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	No data available
n) Solubility (ies):	Easily soluble
o) Partition coefficient: n-octanol/ water:	No data available
p) Auto-ignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	None
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

### 9.2 Other safety information

No data available

## 10. Stability and reactivity

### 10.1 Reactivity

It is stable at under normal handling conditions.

### 10.2 Chemical stability

It is stable at under normal handling conditions.

### 10.3 Possibility of hazardous reactions

None

### 10.4 Conditions to avoid

Freezing, avoid direct rays of the sun.

### 10.5 Incompatible materials

None

### 10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide, nitrogen oxides

## 11. Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

No data available

**Skin corrosion/ irritation**

May be harmful if absorbed through skin. Causes skin irritation.

**Serious eye damage/ irritation**

Cause serious eye irritation.

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available

**Specific target organ toxicity (STOT) - single exposure**

No data available.

**Specific target organ toxicity (STOT) - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Potential health effects**

## Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

## Ingestion

May be harmful if swallowed.

## Skin

May be harmful if absorbed through skin. Causes skin irritation.

## Eyes

Causes serious eye irritation.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional information**

RTECS: Not available

## 12. Ecological information

### 12.1 Toxicity

**Acute (short-term) toxicity:**

No data available

**Fish:**

No data available

**Crustacea:**

No data available

**Algae/ aquatic plants:**

No data available

**Other organisms:**

No data available

**Chronic (long-term) toxicity:**

No data available

**Fish:**

No data available

**Crustacea:**

No data available

**Algae/ aquatic plants:**

No data available

**Other organisms:**

No data available

### 12.2 Persistence and degradability

**Abiotic Degradation:**

No data available

**Physical- and photo-chemical elimination:**

No data available

**Biodegradation:**

No data available

### 12.3 Bioaccumulative potential

**Partition coefficient n-octanol/ water (log K<sub>ow</sub>):** No data available

**Bioconcentration factor (BCF):** No data available

#### 12.4 Mobility in soil

**Known or predicted distribution to environmental compartments:** No data available

**Surface tension:** No data available

**Adsorption/ Desorption:** No data available

#### 12.5 Results of PBT and vPvB assessment

No data available

#### 12.6 Other adverse effects

Harmful to aquatic life.

#### 12.7 Additional information

No information available

### 13. Disposal considerations

#### 13.1 Waste treatment methods

**Product/ Packaging disposal:** Offer surplus and non-recyclable solutions to a licensed disposal company.  
Dispose of as unused product.

**Waste codes/ Waste designations according to LoW:** No data available

**Waste treatment-relevant information:** No data available

**Sewage disposal-relevant information:** No data available

**Other disposal recommendations:** No data available

### 14. Transport information

#### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

#### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

#### 14.3 Transport hazard class (es)

ADR/RID: -

IMDG: -

IATA: -

#### 14.4 Packing group

ADR/RID: -

IMDG: -

IATA: -

#### 14.5 Environmental hazards

ADR/RID: No

IMDG Marine pollutant: No

IATA: No

#### 14.6 Special precautions for user

Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

#### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available

### 15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### 15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

##### EU regulations

**Authorisations and/ or restrictions on use:** No data available

**Authorisations:** No data available

**Restrictions on use:** No data available

**Other EU regulations:** No data available

**Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline)**

**National regulations (Germany):** No data available

**Restrictions of occupation:**

<b>Störfallverordnung (12.BImSchV):</b>	No data available
<b>Wassergefährdungsklasse (water hazard class):</b>	No data available
<b>TechnischeAnleitungLuft (TA-Luft):</b>	No data available
<b>Other regulations, restrictions and prohibition regulations:</b>	No data available

**15.2 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

**16. Other information**

## (i) Indication of changes:

Full text of H-phrases referred to under sections 2 and 3

Acute Tox.	Acute toxicity
Eye Dam.	Serious eye damage
Flam. Sol.	Flammable solids
H228	Flammable solid.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation

Full text of H-phrases referred to under sections 3

Skin Irrit.	Skin irritation.
STOT SE	Specific target organ toxicity – single exposure
F	Highly flammable
R11	Highly flammable.
R21/22	Harmful in contact with skin and if swallowed.
R37/38	Irritating to respiratory system and skin.
Xn	Harmful
R41	Risk of serious damage to eyes.

## (ii) Abbreviations and acronyms:

## (iii) Key literature references and sources for data

## (iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

This description has been prepared based on information, available at this time. But it does not necessarily guarantee the integrity of the description and evaluation data. Because assessment of risk and toxicity is not necessarily sufficient, you should be handled with great care.

These precautions are for normal handling to our product. So, about other exception, you should be handled with carrying out the safety measures with the responsibility of the user.

In addition, we have posted the safety data sheet of the latest version on our website (<http://www.kurabo.co.jp/bio/English>).

Bio-Medical department / KURABO



## SAFETY DATA SHEET

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

#### 1.1 Product identifier

Product name : Wash Buffer WDT-01  
 Product number : WDT-01  
 Product usage : QuickGene DNA tissue kit: Wash Buffer

#### 1.2 Relevant Identified uses of the substance or mixture and uses advised against

Relevant identified uses : Professional uses [SU22], Laboratory chemicals [PC21]

#### 1.3 Detail of the supplier of the safety data sheet

Manufacturer/Supplier : KURABO INDUSTRIES LTD. Bio-Medical Department  
 Address : 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  
 e-mail address : qa@ad.kurabo.co.jp

#### 1.4 Emergency telephone number

Emergency Phone# : +81-72-820-3079  
 Opening hours : Monday to Friday, 9:00 to 18:00 (excluding Saturdays, Sundays and holidays, the New Year holidays)

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008 [CLP].

Not a hazardous substance or mixture according to Directive 67/548/EEC and 1999/45/EC.

#### 2.2 Label elements

Not applicable.

#### 2.3 Other hazards

Not applicable.

### 3. Composition/information on ingredients

#### 3.2 Mixtures

No components need to be disclosed according to the applicable regulation.

CAS No.	EC No.	REACH Registration No.	Name	Formula	Molecular Weight (g/mol)	Weight (%)	Classification
7732-18-5	231-791-2	-	Water	H <sub>2</sub> O	18	80-99.5	-
7647-14-5	231-598-3	-	Sodium chloride	NaCl	58.44	0.5 - 1.5	-

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

### 4. First aid measures

#### 4.1 Description of first aid measures

##### - following inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

##### - following skin contact

Wash off with soap and plenty of water. Consult a physician.

##### - following eye contact

Flush eyes with water as a precaution. Consult a physician.



**- self-protection of the first aider**

Wear protective gloves/protective clothing/eye protection/face protection.

**4.2 Most important symptoms and effects, both acute and delayed**

No information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

**5. Firefighting measures****5.1 Extinguishing media**

**Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media** : None

**5.2 Special hazards arising from the substance or mixture**

No information available.

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information**

Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**6. Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****6.1.1 For non-emergency personnel**

**Protective equipment:** Use personal protective equipment.

**Emergency procedures:** Avoid breathing vapours, mist or gas.

**6.1.2 For emergency responders**

No information available

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and material for containment and cleaning up**

**6.3.1 For containment:** Keep in suitable, closed containers for disposal.

**6.3.2 For cleaning up:** Wipe up with absorbent material.

**6.3.3 Other information:** No information available

**6.4 Reference to other sections**

For disposal see section 13.

**7. Handling and storage****7.1 Precautions for safe handling**

**Protective measures:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

**Measures to prevent fire:** Normal measures for preventive fire protection.

**Measures to prevent aerosol and dust generation:** No data available

**Measures to protect the environment:** No data available

**Advice on general occupational hygiene:** No data available

**7.2 Conditions for safe storage, including any incompatibilities**

**Technical measures and storage conditions:** Store in room temperature (15-28°C).

**Packaging materials:** Store in original container.

**Requirements for storage rooms and vessels:** Keep container tightly closed in a dry and well-ventilated place.

**7.3 Specific end use (s)**

**Recommendations:** Laboratory chemicals

**Industrial sector specific solutions:** No data available

## 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Components with workplace control parameters

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Substance/ mixture related measures to prevent exposure during identified uses: No data available

Structural measures to prevent exposure: No data available

Organizational measures to prevent exposure: General industrial hygiene practice

Technical measures to prevent exposure: No data available

#### 8.2.2 Personal protective equipment

##### Eye and face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

###### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

###### Other skin protection

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Respiratory protection not required. For nuisance exposure use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Thermal hazards

No data available

#### 8.2.3 Environmental exposure controls

Substance/ mixture related measures to prevent exposure: No data available

Instruction measures to prevent exposure: No data available

Organizational measures to prevent exposure: No data available

Technical measures to prevent exposure: No data available

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance:	Form: liquid, clear
	Colour: colourless
b) Odour	None
c) Odour threshold:	No data available
d) pH:	7.5
e) Melting point/ freezing point:	No data available
f) Initial boiling point and boiling range:	No data available
g) Flash point:	None
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/ lower flammability or explosive limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	No data available
n) Solubility (ies):	Easily soluble

<b>o) Partition coefficient: n-octanol/ water:</b>	<b>No data available</b>
<b>p) Auto-ignition temperature:</b>	<b>None</b>
<b>q) Decomposition temperature:</b>	<b>No data available</b>
<b>r) Viscosity:</b>	<b>Equivalent to the water</b>
<b>s) Explosive properties:</b>	<b>No data available</b>
<b>t) Oxidizing properties:</b>	<b>No data available</b>

**9.2 Other safety information**

No data available

**10. Stability and reactivity****10.1 Reactivity**

It is stable at under normal handling conditions.

**10.2 Chemical stability**

It is stable at under normal handling conditions.

**10.3 Possibility of hazardous reactions**

None

**10.4 Conditions to avoid**

Freezing, avoid direct rays of the sun.

**10.5 Incompatible materials**

None

**10.6 Hazardous decomposition products**

Carbon monoxide, carbon dioxide, nitrogen oxides

**11. Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

None

**Skin corrosion/ irritation**

None

**Serious eye damage/ irritation**

None

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available

**Specific target organ toxicity (STOT) - single exposure**

No data available.

**Specific target organ toxicity (STOT) - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Potential health effects**

Inhalation	No data available
Ingestion	No data available
Skin	No data available

Eyes No data available

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Additional information

RTECS: Not available

## 12. Ecological information

### 12.1 Toxicity

Acute (short-term) toxicity: No data available

Fish: No data available

Crustacea: No data available

Algae/ aquatic plants: No data available

Other organisms: No data available

Chronic (long-term) toxicity:

Fish: No data available

Crustacea: No data available

Algae/ aquatic plants: No data available

Other organisms: No data available

### 12.2 Persistence and degradability

Abiotic Degradation: No data available

Physical- and photo-chemical elimination: No data available

Biodegradation: No data available

### 12.3 Bioaccumulative potential

Partition coefficient n-octanol/ water (log Kow): No data available

Bioconcentration factor (BCF): No data available

### 12.4 Mobility in soil

Known or predicted distribution to environmental compartments: No data available

Surface tension: No data available

Adsorption/ Desorption: No data available

### 12.5 Results of PBT and vPvB assessment

No data available

### 12.6 Other adverse effects

No data available

### 12.7 Additional information

No information available

## 13. Disposal considerations

### 13.1 Waste treatment methods

Product/ Packaging disposal: Offer surplus and non-recyclable solutions to a licensed disposal company.  
Dispose of as unused product.

Waste codes/ Waste designations according to LoW: No data available

Waste treatment-relevant information: No data available

Sewage disposal-relevant information: No data available

Other disposal recommendations: No data available

## 14. Transport information

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class (es)

ADR/RID: -

IMDG: -

IATA: -

### 14.4 Packing group

ADR/RID: -

IMDG: -

IATA: -

### 14.5 Environmental hazards

ADR/RID: No

IMDG Marine pollutant: No

IATA: No

### 14.6 Special precautions for user

Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available

## 15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

Authorisations and/ or restrictions on use: No data available

Authorisations: No data available

Restrictions on use: No data available

Other EU regulations: No data available

#### Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

National regulations (Germany): No data available

#### Restrictions of occupation:

Störfallverordnung (12.BImSchV): No data available

Wassergefährdungsklasse (water hazard class): No data available

Technische Anleitung Luft (TA-Luft): No data available

Other regulations, restrictions and prohibition regulations: No data available

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16. Other information

(i) Indication of changes:

(ii) Abbreviations and acronyms:

(iii) Key literature references and sources for data

(iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

This description has been prepared based on information, available at this time. But it does not necessarily guarantee the integrity of the description and evaluation data. Because assessment of risk and toxicity is not necessarily sufficient, you should be handled with great care.

These precautions are for normal handling to our product. So, about other exception, you should be handled with carrying out the safety measures with the responsibility of the user.

In addition, we have posted the safety data sheet of the latest version on our website (<http://www.kurabo.co.jp/bio/English>).

Bio-Medical department / KURABO



## SAFETY DATA SHEET

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

#### 1.1 Product identifier

Product name : Elution Buffer CDT-01  
 Product number : CDT-01  
 Product usage : QuickGene DNA tissue kit: Elution Buffer

#### 1.2 Relevant Identified uses of the substance or mixture and uses advised against

Relevant identified uses : Professional uses [SU22], Laboratory chemicals [PC21]

#### 1.3 Detail of the supplier of the safety data sheet

Manufacturer/Supplier : KURABO INDUSTRIES LTD. Bio-Medical Department  
 Address : 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  
 e-mail address : qa@ad.kurabo.co.jp

#### 1.4 Emergency telephone number

Emergency Phone# : +81-72-820-3079  
 Opening hours : Monday to Friday, 9:00 to 18:00 (excluding Saturdays, Sundays and holidays, the New Year holidays)

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008 [CLP].

Not a hazardous substance or mixture according to Directive 67/548/EEC and 1999/45/EC.

#### 2.2 Label elements

Not applicable.

#### 2.3 Other hazards

Not applicable.

### 3. Composition/information on ingredients

#### 3.2 Mixtures

No components need to be disclosed according to the applicable regulation.

CAS No.	EC No.	REACH Registration No.	Name	Formula	Molecular Weight (g/mol)	Weight (%)	Classification
7732-18-5	231-791-2	-	Water	H <sub>2</sub> O	18	80-100	-

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

### 4. First aid measures

#### 4.1 Description of first aid measures

##### - following inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

##### - following skin contact

Wash off with soap and plenty of water. Consult a physician.

##### - following eye contact

Flush eyes with water as a precaution. Consult a physician.

##### - self-protection of the first aider

Wear protective gloves/protective clothing/eye protection/face protection.

#### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

### 5. Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media** : None

#### 5.2 Special hazards arising from the substance or mixture

No information available.

#### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

#### 5.4 Further information

Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### 6. Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

##### 6.1.1 For non-emergency personnel

**Protective equipment:** Use personal protective equipment.

**Emergency procedures:** Avoid breathing vapours, mist or gas.

##### 6.1.2 For emergency responders

No information available

#### 6.2 Environmental precautions

Do not let product enter drains.

Avoid release to the Rivers, etc.

#### 6.3 Methods and material for containment and cleaning up

**6.3.1 For containment:** Keep in suitable, closed containers for disposal.

**6.3.2 For cleaning up:** Wipe up with absorbent material.

**6.3.3 Other information:** No information available

#### 6.4 Reference to other sections

For disposal see section 13.

### 7. Handling and storage

#### 7.1 Precautions for safe handling

**Protective measures:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

**Measures to prevent fire:** Normal measures for preventive fire protection.

**Measures to prevent aerosol and dust generation:** No data available

**Measures to protect the environment:** No data available

**Advice on general occupational hygiene:** No data available

#### 7.2 Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions:** Store in room temperature (15-28°C).

**Packaging materials:** Store in original container.

**Requirements for storage rooms and vessels:** Keep container tightly closed in a dry and well-ventilated place.

#### 7.3 Specific end use (s)

**Recommendations:** Laboratory chemicals

**Industrial sector specific solutions:** No data available

## 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Components with workplace control parameters

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Substance/ mixture related measures to prevent exposure during identified uses: No data available

Structural measures to prevent exposure: No data available

Organizational measures to prevent exposure: General industrial hygiene practice

Technical measures to prevent exposure: No data available

#### 8.2.2 Personal protective equipment

##### Eye and face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

###### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

###### Other skin protection

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Respiratory protection not required. For nuisance exposure use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Thermal hazards

No data available

#### 8.2.3 Environmental exposure controls

Substance/ mixture related measures to prevent exposure: No data available

Instruction measures to prevent exposure: No data available

Organizational measures to prevent exposure: No data available

Technical measures to prevent exposure: No data available

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance:	Form: liquid, clear
	Colour: colourless
b) Odour	None
c) Odour threshold:	No data available
d) pH:	9
e) Melting point/ freezing point:	No data available
f) Initial boiling point and boiling range:	No data available
g) Flash point:	None
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/ lower flammability or explosive limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	No data available
n) Solubility (ies):	Easily soluble



<b>o) Partition coefficient: n-octanol/ water:</b>	<b>No data available</b>
<b>p) Auto-ignition temperature:</b>	<b>None</b>
<b>q) Decomposition temperature:</b>	<b>No data available</b>
<b>r) Viscosity:</b>	<b>Equivalent to the water</b>
<b>s) Explosive properties:</b>	<b>No data available</b>
<b>t) Oxidizing properties:</b>	<b>No data available</b>

**9.2 Other safety information**

No data available

**10. Stability and reactivity****10.1 Reactivity**

It is stable at under normal handling conditions.

**10.2 Chemical stability**

It is stable at under normal handling conditions.

**10.3 Possibility of hazardous reactions**

None

**10.4 Conditions to avoid**

Freezing, avoid direct rays of the sun.

**10.5 Incompatible materials**

None

**10.6 Hazardous decomposition products**

Carbon monoxide, carbon dioxide, nitrogen oxides

**11. Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

None

**Skin corrosion/ irritation**

None

**Serious eye damage/ irritation**

None

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available

**Specific target organ toxicity (STOT) - single exposure**

No data available.

**Specific target organ toxicity (STOT) - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Potential health effects**

Inhalation	No data available
Ingestion	No data available
Skin	No data available

Eyes

No data available

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional information**

RTECS: Not available

**12. Ecological information****12.1 Toxicity****Acute (short-term) toxicity:****Fish:**

No data available

**Crustacea:**

No data available

**Algae/ aquatic plants:**

No data available

**Other organisms:**

No data available

**Chronic (long-term) toxicity:****Fish:**

No data available

**Crustacea:**

No data available

**Algae/ aquatic plants:**

No data available

**Other organisms:**

No data available

**12.2 Persistence and degradability****Abiotic Degradation:**

No data available

**Physical- and photo-chemical elimination:**

No data available

**Biodegradation:**

No data available

**12.3 Bioaccumulative potential****Partition coefficient n-octanol/ water (log Kow):**

No data available

**Bioconcentration factor (BCF):**

No data available

**12.4 Mobility in soil****Known or predicted distribution to environmental compartments:**

No data available

**Surface tension:**

No data available

**Adsorption/ Desorption:**

No data available

**12.5 Results of PBT and vPvB assessment**

No data available

**12.6 Other adverse effects**

No data available

**12.7 Additional information**

No data available

**13. Disposal considerations****13.1 Waste treatment methods****Product/ Packaging disposal:**

Offer surplus and non-recyclable solutions to a licensed disposal company.

Dispose of as unused product.

**Waste codes/ Waste designations according to LoW:**

No data available

**Waste treatment-relevant information:**

No data available

**Sewage disposal-relevant information:**

No data available

**Other disposal recommendations:**

No data available

**14. Transport information****14.1 UN number**

ADR/RID: -

IMDG: -

IATA: -

**14.2 UN proper shipping name**

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

**14.3 Transport hazard class (es)**

ADR/RID: -

IMDG: -

IATA: -

**14.4 Packing group**

ADR/RID: -

IMDG: -

IATA: -

**14.5 Environmental hazards**

ADR/RID: No

IMDG Marine pollutant: No

IATA: No

**14.6 Special precautions for user**

Not dangerous goods in the meaning of ADR/RID, ADNR, IMDG-Code, ICAO/IATA-DGR

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

No information available

**15. Regulatory information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Authorisations and/ or restrictions on use:** No data available**Authorisations:** No data available**Restrictions on use:** No data available**Other EU regulations:** No data available**Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline)****National regulations (Germany):** No data available**Restrictions of occupation:****Störfallverordnung (12.BImSchV):** No data available**Wassergefährdungsklasse (water hazard class):** No data available**Technische Anleitung Luft (TA-Luft):** No data available**Other regulations, restrictions and prohibition regulations:** No data available**15.2 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

**16. Other information**

(i) Indication of changes:

(ii) Abbreviations and acronyms:

(iii) Key literature references and sources for data

(iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

This description has been prepared based on information, available at this time. But it does not necessarily guarantee the integrity of the description and evaluation data. Because assessment of risk and toxicity is not necessarily sufficient, you should be handled with great care.

These precautions are for normal handling to our product. So, about other exception, you should be handled with carrying out the safety measures with the responsibility of the user.

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Bio-Medical department / KURABO